As filed with the Securities and Exchange Commission on April 27, 2020

Registration No. 333-237371

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

AMENDMENT NO. 1
TO
FORM S-4
REGISTRATION STATEMENT
Under
The Securities Act of 1933

Tocagen Inc.

(Exact name of Registrant as specified in its charter)

Delaware	2834	26-1243872
(State or Other Jurisdiction of Incorporation or Organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)

4445 Eastgate Mall, Suite 200
San Diego, CA 92121
(858) 412-8400
(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)

Martin J. Duvall
Chief Executive Officer
Tocagen Inc.
4445 Eastgate Mall, Suite 200
San Diego, CA 92121
(858) 412-8400
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Please send copies of all communications to:

Karen Deschaine, Esq. **Rama Padmanabhan, Esq.** **Cooley LLP** **4401 Eastgate Mall** **San Diego, CA 92121** **(858) 550-6000**	**Paul A. Wagner, Ph.D.** **President and Chief Executive Officer** **Forte Biosciences, Inc.** **1124 W Carson Street** **MRL Building 3-320** **Torrance, CA 90502** **(310) 618-6994**	**Dan Koeppen, Esq.** **Thomas E. Hornish, Esq.** **Wilson Sonsini Goodrich & Rosati** **12235 El Camino Real** **San Diego, CA 92130** **(858) 350-2300**

Approximate date of commencement of proposed sale to the public: As soon as practicable after the effectiveness of this registration statement and the satisfaction or waiver of all other conditions under the Merger Agreement described herein.

If the securities being registered on this Form are being offered in connection with the formation of a holding company and there is compliance with General Instruction G, please check the following box. ☐

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☐	Accelerated filer	☒
Non-accelerated filer	☐	Smaller reporting company	☒
		Emerging growth company	☒

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. ☒

If applicable, place an X in the box to designate the appropriate rule provision relied upon in conducting this transaction:

Exchange Act Rule 13(e)-4(i) (Cross-Border Issuer Tender Offer) ☐

Exchange Act Rule 14d-1(d) (Cross-Border Third-Party Tender Offer) ☐

CALCULATION OF REGISTRATION FEE

Title of Each Class of Security Being Registered	Amount to be Registered (1)	Proposed Maximum Offering Price Per Share	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee (3)
Common stock, $0.001 par value per share	118,484,197	N/A	$1,523.52 (2)	$0.20
Common stock issuable upon exercise of warrants	33,851,183	N/A	$28,258,137.93	$3,667.90
TOTAL	152,335,380	N/A	$28,259,661.45(4)	$3,668.10 (5)

(1) Relates to common stock, $0.001 par value per share, of Tocagen Inc., a Delaware corporation ("Tocagen"), issuable to holders of common stock (including the shares of common stock issuable upon conversion of all shares of preferred stock prior to the merger described herein) $0.0001 par value per share of Forte Biosciences, Inc., a Delaware corporation ("Forte"), and upon exercise of warrants to purchase common stock of Forte, in the proposed merger of Telluride Merger Sub, Inc., a Delaware corporation and wholly owned subsidiary of Tocagen, with and into Forte (the "Merger"). The amount of Tocagen common stock to be registered is based on the estimated number of shares of Tocagen common stock that are expected to be issued pursuant to the Merger, without taking into account the effect of a reverse stock split of Tocagen common stock, assuming an exchange ratio of 2.5923 shares of Tocagen common stock for each outstanding share of Forte common stock and 2.5923 shares of common stock issuable upon exercise of each warrant to purchase one share of Forte common stock. Holders of Forte capital stock (prior to Forte's pre-closing financing) are expected to hold approximately 50.1% of the combined company.

(2) Estimated solely for purposes of calculating the registration fee in accordance with Rule 457(f)(2) of the Securities Act of 1933, as amended. Forte is a private company, no market exists for its securities, and Forte has an accumulated capital deficit. Therefore, the proposed maximum aggregate offering price is one-third of the aggregate par value of the Forte securities expected to be exchanged in the proposed merger.

(3) This fee has been calculated pursuant to Section 6(b) of the Securities Act of 1933, as amended.

(4) In connection with the filing of this amendment to the registration statement, the registrant is registering an additional 45,686,983 shares of Tocagen common stock to be issued in connection with the Merger (the "Additional Registered Shares"), assuming an exchange ratio of 2.5923 shares of Tocagen common stock for each outstanding share of Forte common stock and 2.5923 shares of common stock issuable upon exercise of each warrant to purchase one share of Forte common stock.

(5) The Registrant previously paid $3,411.28 of the total registration fee in connection with the previous filing of this registration statement on March 25, 2020 with respect to 106,648,397 shares of Tocagen common stock listed on the calculation fee table of such filing. An additional registration fee of $256.82 is being paid in connection with the filing of the amendment to the registration statement with respect to the 45,686,983 Additional Registered Share being registered hereby.

The Registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment that specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

The information in this proxy statement/prospectus/information statement is not complete and may be changed. Tocagen may not sell its securities pursuant to the proposed transactions until the registration statement filed with the Securities and Exchange Commission is effective. This proxy statement/prospectus/information statement is not an offer to sell these securities and is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

PRELIMINARY—SUBJECT TO COMPLETION—DATED APRIL 27, 2020

PROPOSED MERGER
YOUR VOTE IS VERY IMPORTANT

To the Stockholders of Tocagen Inc. and Forte Biosciences, Inc.:

Tocagen Inc. ("Tocagen") and Forte Biosciences, Inc. ("Forte") have entered into an Agreement and Plan of Merger and Reorganization (the "Merger Agreement"), pursuant to which a wholly owned subsidiary of Tocagen will merge with and into Forte, with Forte surviving as a wholly owned subsidiary of Tocagen (the "Merger"). The Merger will result in a clinical-stage biopharmaceutical company focused on advancing Forte's clinical program and developing a live biotherapeutic for the treatment of inflammatory skin diseases, particularly for pediatric atopic dermatitis patients for which there is currently a significant unmet need for safe and effective therapies.

At the effective time of the Merger (the "Effective Time"), each share of common stock of Forte (including the shares of common stock issuable upon conversion of all shares of preferred stock prior to the Merger), $0.0001 par value per share ("Forte Common Stock"), will be converted into the right to receive 2.5923 shares of common stock of Tocagen, $0.001 par value per share ("Tocagen Common Stock"), subject to adjustment for the reverse stock split of Tocagen Common Stock to be implemented prior to the consummation of the Merger as discussed in this proxy statement/prospectus/information statement, and further adjusted based on Tocagen's net cash in connection with the closing of the Merger (which net cash has been assumed to be $3.0 million for the purposes of this calculation). Tocagen will assume outstanding and unexercised options to purchase shares of Forte capital stock, and in connection with the Merger they will be converted into options to purchase shares of Tocagen Common Stock. At the Effective Time, Tocagen's stockholders will continue to own and hold their then existing shares of Tocagen Common Stock, subject to adjustment for the reverse stock split. Each warrant to purchase Forte Common Stock outstanding and unexercised immediately prior to the Effective Time of the Merger will be assumed by Tocagen and will become a warrant to purchase shares of Tocagen Common Stock, with the number of shares and exercise price being adjusted by the same exchange ratio. As of immediately prior to the Effective Time, all outstanding and unexercised options to purchase shares of Tocagen Common Stock with an exercise price of greater than $0.64 will be cancelled and have no further force and effect. All outstanding and unexercised options to purchase shares of Tocagen Common Stock with an exercise price equal to or less than $0.64 will remain effective and outstanding. Such options to remain effective and outstanding are exercisable for an aggregate of 402,500 shares of Tocagen Common Stock. Of the options to remain effective and outstanding, our current executive officers and directors hold options to purchase an aggregate of 145,000 shares of Tocagen Common Stock.

In connection with the Merger, on February 19, 2020, Forte entered into a Securities Purchase Agreement (the "Securities Purchase Agreement") with certain investors pursuant to which, among other things, Forte agreed to issue to the investors (i) an aggregate of 13,055,999 shares of Forte Common Stock at a purchase price of $1.0769 per share, for gross proceeds of approximately $14.1 million and (ii) warrants to purchase an equal number of shares of Forte Common Stock purchased under the Securities Purchase Agreement, and on March 18, 2020 Forte entered into a Common Stock Purchase Agreement with certain investors pursuant to which, among other things, Forte agreed to issue to the investors approximately $5.2 million of shares of Forte Common Stock (collectively with the shares and warrants issued under the Securities Purchase Agreement, the "Pre-Closing Financing"). The warrants to be issued pursuant to the Securities Purchase Agreement shall have an exercise price equal to that price per share of Tocagen Common Stock wherein Tocagen's market value, after the Merger, would be $120.0 million. Immediately after the Merger, after giving effect to the Pre-Closing Financing and

assuming Tocagen holds $3.0 million of net cash at the closing of the Merger, the former equity holders of Forte are expected to hold approximately 82.4% of the Tocagen capital stock on a fully diluted treasury stock method basis and the equity holders of Tocagen (pre-Merger) are expected to hold approximately 17.6% of the Tocagen capital stock on a fully diluted treasury stock method basis. If Tocagen holds less than $3.0 million of net cash at the closing of the Merger, the equity holders of Tocagen (pre-merger) are expected to hold less than 17.6% of the Tocagen capital stock on a fully diluted treasury stock method basis.

Shares of Tocagen's common stock are currently listed on The Nasdaq Global Select Market under the symbol "TOCA" although Tocagen plans to transfer its listing to The Nasdaq Capital Market prior to completion of the Merger and file an initial listing application with The Nasdaq Stock Market LLC ("Nasdaq") pursuant to Nasdaq's "reverse merger" rules. Substantially concurrent with the completion of the Merger, Tocagen will be renamed "Forte Biosciences, Inc." and expects to trade on The Nasdaq Capital Market under the symbol "FBRX." On , 2020, the last trading day before the date of this proxy statement/prospectus/information statement, the closing sale price of Tocagen's common stock was $ per share.

Tocagen is holding a special meeting of its stockholders (the "Tocagen special meeting") in order to obtain the stockholder approvals necessary to complete the Merger and related matters. At the Tocagen special meeting, which will be held at local time, on , 2020 at the offices of Cooley LLP, 4401 Eastgate Mall, San Diego, CA 92121, unless postponed or adjourned to a later date, Tocagen will ask its common stockholders to, among other things:

1. approve an amendment to the amended and restated certificate of incorporation of Tocagen to effect a reverse stock split of Tocagen's common stock at a ratio within the range between 8-for-1 and 15-for-1 (with such ratio to be mutually agreed upon by Tocagen and Forte prior to the effectiveness of the Merger);

2. approve (i) the issuance of shares of Tocagen capital stock pursuant to the Merger, which will represent more than 20% of the shares of Tocagen Common Stock outstanding immediately prior to the Merger, and (ii) the change of control resulting from the Merger, pursuant to Nasdaq Listing Rules 5635(a) and 5635(b), respectively; and

3. approve a postponement or adjournment of the Tocagen special meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of Proposal Nos. 1 or 2.

Please refer to the attached proxy statement/prospectus/information statement for further information with respect to the business to be transacted at the Tocagen special meeting. As described in the accompanying proxy statement/prospectus/information statement, certain of Forte's stockholders who in the aggregate own approximately 95% of the shares of Forte Common Stock, and certain of Tocagen's stockholders who in the aggregate own approximately 6% of the shares of Tocagen Common Stock, in each case, outstanding as of the date of the Merger Agreement, are parties to support agreements with Tocagen and Forte, whereby such stockholders have agreed to vote their shares in favor of the adoption or approval, among other things, of the Merger Agreement and the approval of the transactions contemplated therein, including the Merger, the issuance of shares of Tocagen Common Stock to Forte's stockholders, and the change of control resulting from the Merger, subject to the terms of the support agreements.

In addition, following the effectiveness of the registration statement on Form S-4 (the "Registration Statement"), of which this proxy statement/prospectus/information statement is a part, and pursuant to the conditions of the Merger Agreement and the support agreements, Forte's stockholders who are party to the support agreements will each execute an action by written consent of Forte's stockholders, referred to as the written consent, adopting the Merger Agreement, thereby approving the transactions contemplated thereby, including the Merger. No meeting of Forte's stockholders will be held; all of Forte's stockholders will have the opportunity to elect to adopt the Merger Agreement, thereby approving the Merger and related transactions, by signing and returning to Forte a written consent once this Registration Statement is declared effective by the Securities and Exchange Commission.

After careful consideration, Tocagen's board of directors has unanimously (i) determined that the Merger and all related transactions contemplated by the Merger Agreement are advisable and fair to, and in the best

interests of, Tocagen and its stockholders (ii) approved and declared advisable the Merger Agreement and the transactions contemplated therein and (iii) determined to recommend, upon the terms and subject to the conditions set forth in the Merger Agreement, that its stockholders vote "FOR" Proposal Nos. 1, 2 and 3.

After careful consideration, Forte's board of directors has unanimously (i) determined that the Merger and all related transactions contemplated by the Merger Agreement are advisable and fair to, and in the best interests of, Forte and its stockholders, (ii) approved and declared advisable the Merger Agreement and the transactions contemplated therein and (iii) determined to recommend, upon the terms and subject to the conditions set forth in the Merger Agreement, that each Forte stockholder sign and return the written consent, indicating its (w) adoption of the Merger Agreement and approval of the transactions contemplated thereby, (x) acknowledgement that the approval given is irrevocable and that such stockholder is aware of its rights to demand appraisal for its shares pursuant to Section 262 of the General Corporation Law of the State of Delaware ("DGCL"), and that such stockholder has received and read a copy of Section 262 of the DGCL, (y) consent to conversion of Forte's preferred stock to Forte Common Stock immediately prior to the closing of the Merger, for Forte's preferred stockholders, and is aware of its dissenters' rights in accordance with Chapter 13 of the California Corporations Code (the "CCC"), and that such stockholder has received and read a copy of Section 262 of the DGCL and Chapter 13 of the CCC, and (z) acknowledgement that by its approval of the Merger it is not entitled to appraisal rights or dissenters' rights with respect to its shares in connection with the Merger and thereby waives any rights to receive payment of the fair value of its capital stock under the DGCL or the CCC.

More information about Tocagen, Forte and the proposed transaction is contained in this proxy statement/prospectus/information statement. Tocagen and Forte urge you to read the accompanying proxy statement/prospectus/information statement carefully and in its entirety. IN PARTICULAR, YOU SHOULD CAREFULLY CONSIDER THE MATTERS DISCUSSED UNDER "*RISK FACTORS*" BEGINNING ON PAGE 26.

Tocagen and Forte are excited about the opportunities the Merger brings to Tocagen's and Forte's stockholders, and thank you for your consideration and continued support.

Marty J. Duvall
Chief Executive Officer
Tocagen Inc.

Paul A. Wagner, Ph.D.
President and Chief Executive Officer
Forte Biosciences, Inc.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this proxy statement/prospectus/information statement. Any representation to the contrary is a criminal offense.

The accompanying proxy statement/prospectus/information statement is dated , 2020, and is first being mailed to Tocagen's and Forte's stockholders on or about , 2020.

PRELIMINARY—SUBJECT TO COMPLETION—DATED APRIL 27, 2020

Tocagen Inc.
4445 Eastgate Mall, Suite 200
San Diego, CA 92121

NOTICE OF SPECIAL MEETING OF STOCKHOLDERS
To Be Held On , 2020

Dear Stockholder of Tocagen:

On behalf of the board of directors of Tocagen Inc., a Delaware corporation ("Tocagen"), we are pleased to deliver this proxy statement/prospectus/information statement for a special meeting of stockholders of Tocagen (the "Tocagen special meeting"), (i) for the proposed merger between Tocagen and Forte Biosciences, Inc., a Delaware corporation ("Forte"), pursuant to which Telluride Merger Sub, Inc., a Delaware corporation and wholly owned subsidiary of Tocagen, will merge with and into Forte, with Forte surviving as a wholly owned subsidiary of Tocagen (the "Merger"). The Tocagen special meeting will be held on , 2020, at local time at the offices of Cooley LLP, 4401 Eastgate Mall, San Diego, CA 92121 for the following purposes:

1. approve an amendment to the amended and restated certificate of incorporation of Tocagen to effect a reverse stock split of Tocagen's common stock at a ratio within the range between 8-for-1 and 15-for-1 (with such ratio to be mutually agreed upon by Tocagen and Forte prior to the effectiveness of the Merger);

2. approve (i) the issuance of shares of Tocagen capital stock pursuant to the Merger, which will represent more than 20% of the shares of Tocagen Common Stock outstanding immediately prior to the Merger, and (ii) the change of control resulting from the Merger, pursuant to Nasdaq Listing Rules 5635(a) and 5635(b), respectively; and

3. approve a postponement or adjournment of the Tocagen special meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of Proposal Nos. 1 or 2.

Please refer to the attached proxy statement/prospectus/information statement for further information with respect to the business to be transacted at the Tocagen special meeting. The board of directors of Tocagen (the "Tocagen Board") has fixed April 20, 2020, as the record date for the determination of stockholders entitled to notice of, and to vote at, the Tocagen special meeting and any adjournment or postponement thereof. Only holders of record of shares of Tocagen Common Stock at the close of business on the record date are entitled to notice of, and to vote at, the Tocagen special meeting. At the close of business on the record date, Tocagen had 23,918,889 shares of common stock outstanding and entitled to vote. A complete list of such stockholders entitled to vote at the Tocagen special meeting will be available for examination at the Tocagen offices in San Diego, California during normal business hours for a period of ten days prior to the Tocagen special meeting.

Your vote is important. Approval of Proposal No. 1 requires the affirmative vote of holders of a majority of Tocagen Common Stock outstanding as of the record date for the Tocagen special meeting. Approval of Proposal Nos. 2 and 3 requires the affirmative vote of a majority of the votes cast in person or by proxy at the special meeting. Each of Proposal Nos. 1 and 2 is a condition to the consummation of the Merger. Therefore, the Merger cannot be consummated without the approval of Proposal Nos. 1 and 2.

Even if you plan to attend the Tocagen special meeting in person, Tocagen requests that you sign and return the enclosed proxy card to ensure that your shares will be represented at the Tocagen special meeting if you are unable to attend. If you sign, date and mail your proxy card without indicating how you wish to vote, your proxy will be counted as a vote in favor of adoption of each of the proposals.

THE TOCAGEN BOARD HAS UNANIMOUSLY DETERMINED AND BELIEVES THAT EACH OF THE PROPOSALS OUTLINED ABOVE IS ADVISABLE TO, AND IN THE BEST INTERESTS OF,

TOCAGEN AND ITS STOCKHOLDERS AND HAS UNANIMOUSLY APPROVED EACH SUCH PROPOSAL. THE TOCAGEN BOARD UNANIMOUSLY RECOMMENDS THAT TOCAGEN'S COMMON STOCKHOLDERS VOTE "FOR" EACH SUCH PROPOSAL.

By Order of the Tocagen Board of Directors,

Marty J. Duvall
Chief Executive Officer
San Diego, California

, 2020

Tocagen is closely monitoring developments related to COVID-19. It could become necessary to change the date, time, location and/or means of holding the Tocagen special meeting (including by means of remote communication). If such a change is made, Tocagen will announce the change in advance, and details on how to participate will be issued by press release, posted on Tocagen's website and filed as additional proxy materials.

REFERENCES TO ADDITIONAL INFORMATION

This proxy statement/prospectus/information statement incorporates important business and financial information about Tocagen that is not included in or delivered with this document. You may obtain this information without charge through the SEC website (www.sec.gov) or upon your written or oral request by contacting Tocagen Inc., Attention: Mark Foletta, 4445 Eastgate Mall, Suite 200, San Diego, California 92121, or by email at mfoletta@tocagen.com or by calling (858) 412-8400.

You may also request additional copies from Tocagen's proxy solicitor using the following contact information:

The Proxy Advisory Group, LLC
18 East 41st Street, Suite 2000
New York, New York 10017
1 (212) 616-2180

To ensure timely delivery of these documents, any request should be made no later than , 2020 to receive them before the special meeting.

For additional details about where you can find information about Tocagen, please see the section titled "*Where You Can Find More Information*" beginning on page 273 of this proxy statement/prospectus/information statement.

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QUESTIONS AND ANSWERS ABOUT THE MERGER

Except where specifically noted, the following information and all other information contained in this proxy statement/prospectus/information statement does not give effect to the proposed reverse stock split (the "Reverse Split") of common stock of Tocagen Inc. ("Tocagen"), as described in Proposal No. 1 beginning on page 165 of this proxy statement/prospectus/information statement.

The following section provides answers to frequently asked questions about the proposed merger transaction. This section, however, provides only summary information. For a more complete response to these questions and for additional information, please refer to the cross-referenced sections.

Q: What is the Merger?

A: Tocagen, Telluride Merger Sub, Inc., a Delaware corporation and wholly owned subsidiary of Tocagen ("Merger Sub"), and Forte Biosciences, Inc. ("Forte") entered into the Agreement and Plan of Merger and Reorganization on February 19, 2020 (the "Merger Agreement"). The Merger Agreement, as it may be amended from time to time, contains the terms and conditions of the proposed merger transaction among Tocagen, Merger Sub and Forte. Under the Merger Agreement, Merger Sub will merge with and into Forte, with Forte surviving as a wholly owned subsidiary of Tocagen. This transaction is referred to as the "Merger."

At the effective time of the Merger (the "Effective Time"): (a) each share of Forte's common stock (the "Forte Common Stock") and each share of Forte's preferred stock (the "Forte Preferred Stock" and, together with the Forte Common Stock, the "Forte Capital Stock") outstanding immediately prior to the Effective Time (excluding certain shares to be canceled pursuant to the Merger Agreement and shares held by stockholders who have exercised and perfected appraisal rights as more fully described in the section titled "*The Merger—Appraisal Rights and Dissenters' Rights*" beginning on page 137 of this proxy statement/prospectus/information statement but including any shares of Forte Capital Stock issued pursuant to the Pre-Closing Financing (as defined below)) will automatically be converted into the right to receive a number of shares of Tocagen's common stock ("Tocagen Common Stock") calculated using an exchange ratio formula described in the Merger Agreement (the "Exchange Ratio").

In connection with the Merger, on February 19, 2020, Forte entered into a Securities Purchase Agreement (the "Securities Purchase Agreement") with certain investors pursuant to which, among other things, Forte agreed to issue to the investors (i) an aggregate of 13,055,999 shares of Forte Common Stock at a purchase price of $1.0769 per share, for gross proceeds of approximately $14.1 million and (ii) warrants to purchase an equal number of shares of Forte Common Stock purchased under the Securities Purchase Agreement, and on March 18, 2020 Forte entered into a Common Stock Purchase Agreement with certain investors pursuant to which, among other things, Forte agreed to issue to the investors approximately $5.2 million of shares of Forte Common Stock (collectively with the shares and warrants issued under the Securities Purchase Agreement, the "Pre-Closing Financing"). The warrants to be issued pursuant to the Securities Purchase Agreement shall have an exercise price equal to that price per share of Tocagen Common Stock wherein Tocagen's market value, after the Merger, would be $120.0 million. Forte entered into the Securities Purchase Agreement and the Common Stock Purchase Agreement in order to satisfy its need for capital to support the clinical development of its product candidates and to reach its next clinical milestone.

Under the Exchange Ratio formula described in the Merger Agreement and assuming Tocagen holds $3.0 million of net cash at the closing of the Merger, the former Forte equity holders immediately before the Merger are expected to hold approximately 82.4% of the capital stock of Tocagen outstanding immediately following the Merger on a fully diluted treasury stock method basis and the equity holders of Tocagen immediately before the Merger are expected to hold approximately 17.6% of the Tocagen capital stock outstanding immediately following the Merger on a fully diluted treasury stock method basis, in each case, after giving effect to the Pre-Closing Financing. The Exchange Ratio formula is based upon a Forte fixed valuation of $49.3 million (assuming a Pre-Closing Financing of $19.3 million) and a Tocagen base

valuation of $15 million, which is subject to adjustment based upon the Tocagen Net Cash relative to a range between $7.5 million and $10.0 million, the lower end of which range is subject to further adjustment, including in connection with the disposition of the Company Assets, and as more fully described in the section titled "*Overview of the Merger Agreement and Agreements Related to the Merger Agreement—Merger Consideration and Exchange Ratio*" beginning on page 143 of this proxy statement/prospectus/information statement.

Assuming a $19.3 million investment in the Pre-Closing Financing and $3.0 million in Tocagen net cash at the closing of the Merger, prior to the consummation of the Merger, the outstanding equity of Tocagen on a fully diluted treasury stock method basis is expected to be held as follows: equity holders of former Forte Capital Stock (prior to the Pre-Closing Financing) will hold approximately 50.1%, the investors in the Pre-Closing Financing will hold approximately 32.3%; and pre-Merger Tocagen equity holders will hold approximately 17.6%. If Tocagen holds less than $3.0 million of net cash at the closing of the Merger, the equity holders of Tocagen (pre-merger) are expected to hold less than 17.6% of the Tocagen capital stock on a fully diluted treasury stock method basis. Although the Merger Agreement provides for a reverse stock split range between 8-for-1 and 12-for-1, Tocagen, Forte and Merger Sub agreed to a revised reverse stock split range of between 8-for-1 and 15-for-1 on April 14, 2020.

At the Effective Time, Tocagen's stockholders will continue to own and hold their existing shares of Tocagen Common Stock, subject to adjustment in connection with the Reverse Split. As of immediately prior to the Effective Time, all outstanding and unexercised options to purchase shares of Tocagen Common Stock with an exercise price of greater than $0.64 will be cancelled and have no further force and effect. All outstanding and unexercised options to purchase shares of Tocagen Common Stock with an exercise price equal to or less than $0.64 will remain effective and outstanding. Such options to remain effective and outstanding are exercisable for an aggregate of 402,500 shares of Tocagen Common Stock. Of the options to remain effective and outstanding, our current executive officers and directors hold options to purchase an aggregate of 145,000 shares of Tocagen Common Stock. Each option to purchase shares of Forte Common Stock that is outstanding and unexercised immediately prior to the Effective Time, whether or not vested, will be converted into an option to purchase shares of Tocagen Common Stock. Each warrant to purchase Forte Common Stock outstanding and unexercised immediately prior to the Effective Time will be assumed by Tocagen and will become a warrant to purchase shares of Tocagen Common Stock, with the number of shares and exercise price being adjusted by the Exchange Ratio. Substantially concurrent with the completion of the Merger, Tocagen will change its corporate name to "Forte Biosciences, Inc." as required by the Merger Agreement.

Q: Why did the Exchange Ratio estimation change from 1.7514 at the time of signing the merger agreement change to 2.5923 as of the date of this proxy statement/prospectus/information statement?

A: The mechanism to calculate the Exchange Ratio in the Merger Agreement was agreed to after extensive negotiations, and this change to the estimate of the Exchange Ratio from 1.7514 to 2.5923 was the result of a couple factors. First, there was investment by new investors that entered into the Investment and Subscription Agreement to purchase shares of Forte's common stock after the signing of the Merger Agreement but prior to the date of this proxy statement/prospectus/information statement. The Merger Agreement contemplated and provided a mechanism for the Exchange Ratio to be revised for such investment in Forte. Second, the initial Exchange Ratio of 1.7514 assumed Tocagen Net Cash at closing of the Merger to be $7.5 million, whereas the Exchange Ratio of 2.5923 assumes Tocagen Net Cash at Closing to be $3.0 million. The Merger Agreement also contemplated and provided a mechanism for the Exchange Ratio to be revised for such difference in Tocagen Net Cash. The assumption that Tocagen Net Cash would be $7.5 million at closing of the Merger was based, in part, on Tocagen's belief that the Company Assets (as defined on page 104 of this proxy statement/prospectus/information statement) would be sold for more than is currently expected, which sale process was also impacted by COVID-19, and as more fully described in the section titled "The Merger—Background of the Merger" beginning on page 103 of this proxy statement/prospectus/information statement. In addition, Tocagen management had assumed a faster closing of the Merger in the initial estimate of the Tocagen Net Cash.

If Tocagen holds less than $3.0 million of net cash at the closing of the Merger, the final Exchange Ratio will increase and correspondingly the percent of the Tocagen capital stock on a fully diluted treasury stock method basis held by Tocagen's stockholders (pre-merger) after the closing of the Merger will decrease. For a more complete description of the Merger and the potential adjustments in the Exchange Ratio, please see the section titled "Overview of the Merger Agreement and Agreements Related to the Merger Agreement—Merger Consideration and Exchange Ratio" beginning on page 143 of this proxy statement/prospectus/information statement.

Q: What will happen to Tocagen if, for any reason, the Merger does not close?

A: If, for any reason, the Merger does not close, the board of directors of Tocagen (the "Tocagen Board") may elect to, among other things, attempt to continue to sell or otherwise dispose of the various assets of Tocagen, dissolve and liquidate its assets or commence bankruptcy proceedings. Under certain circumstances, Tocagen may be obligated to pay Forte a termination fee of $500,000 or $750,000 or reimburse certain expenses of Forte up to $250,000, as more fully described in the section titled "*The Merger Agreement—Termination and Termination Fees*" beginning on page 160 of this proxy statement/prospectus/information statement. If Tocagen decides to dissolve and liquidate its assets, Tocagen would be required to pay all of its debts and contractual obligations, and to set aside certain reserves for potential future claims. There can be no assurances as to the amount or timing of available cash left to distribute to stockholders after paying the debts and other obligations of Tocagen and setting aside funds for reserves.

Q: Why are the two companies proposing to merge?

A: The Merger will result in a clinical-stage biopharmaceutical company focused on advancing Forte's clinical program and developing a live biotherapeutic for the treatment of inflammatory skin diseases, particularly for pediatric atopic dermatitis patients for which there is currently a significant unmet need for safe and effective therapies. For a discussion of Tocagen's and Forte's reasons for the Merger, please see the section titled "*The Merger—Tocagen Reasons for the Merger*" beginning on page 112 of this proxy statement/prospectus/information statement and "*The Merger—Forte Reasons for the Merger*" beginning on page 115 of this proxy statement/prospectus/information statement.

Q: Why am I receiving this proxy statement/prospectus/information statement?

A: You are receiving this proxy statement/prospectus/information statement because you have been identified as a common stockholder of Tocagen as of the record date, or a stockholder of Forte eligible to execute the Forte written consent. If you are a common stockholder of Tocagen, you are entitled to vote at the special meeting of stockholders of Tocagen (the "Tocagen special meeting"), which has been called for the purpose of approving the following proposals:

1. the amendment to the amended and restated certificate of incorporation of Tocagen to effect a reverse stock split of Tocagen's common stock at a ratio within the range between 8-for-1 and 15-for-1 (with such ratio to be mutually agreed upon by Tocagen and Forte prior to the effectiveness of the Merger);
2. (i) the issuance of shares of Tocagen capital stock pursuant to the Merger, which will represent more than 20% of the shares of Tocagen Common Stock outstanding immediately prior to the Merger, and (ii) the change of control resulting from the Merger, pursuant to Nasdaq Listing Rules 5635(a) and 5635(b), respectively; and
3. the postponement or adjournment of the Tocagen special meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of Proposal Nos. 1 or 2.

Proposal Nos. 1 through 3 described above are collectively the "Tocagen Stockholder Matters," and Proposal Nos. 1 and 2 above are collectively the "Closing Tocagen Stockholder Matters." We do not expect that any matter other than Proposal Nos. 1 through 3 will be brought before the Tocagen special meeting.

If you are a stockholder of Forte, you are requested to sign and return the Forte written consent to (i) adopt the Merger Agreement and approve the transactions and actions contemplated by the Merger Agreement, including the conversion of the Series A preferred stock to common stock immediately prior to the closing of the Merger you hold shares of Forte's Series A preferred stock, (ii) acknowledge that your approval is irrevocable and that you are aware of your rights to demand appraisal for your shares pursuant to Section 262 of the General Corporation Law of the State of Delaware ("DGCL"), and you are aware of your dissenters' rights in accordance with Chapter 13 of the California Corporations Code (the "CCC"), and that you have received and read a copy of Section 262 of the DGCL and Chapter 13 of the CCC, and (iii) acknowledge that by your approval of the Merger you are not entitled to appraisal rights or dissenters' rights with respect to your shares in connection with the Merger and thereby waive any rights to receive payment of the fair value of your capital stock under the DGCL or the CCC (items (i) through (iii), collectively, the "Forte Stockholder Matters").

This document serves as: (x) a proxy statement of Tocagen used to solicit proxies for the Tocagen special meeting, (y) a prospectus of Tocagen used to offer shares of Tocagen Common Stock (i) in exchange for shares of Forte Capital Stock in the Merger and (ii) upon exercise of the warrants to purchase shares of Tocagen common stock assumed in the Merger in exchange for the warrants to purchase shares of Forte Common Stock and (z) an information statement of Forte used to solicit the written consent of its stockholders for the adoption of the Merger Agreement and the approval of the Merger and related transactions after the declaration of the effectiveness of the registration statement on Form S-4 (the "Registration Statement"), of which this proxy statement/prospectus/information statement is a part.

Q: What is required to consummate the Merger?

A: To consummate the Merger, Tocagen's common stockholders must approve the Closing Tocagen Stockholder Matters (Proposal Nos. 1 and 2 above) and Forte's common stockholders must approve the Forte Stockholder Matters (items (i), (ii), and (iii) above).

Certain of Forte's stockholders who in the aggregate own approximately 95% of the shares of Forte Common Stock, and certain of Tocagen's stockholders who in the aggregate own approximately 6% of the shares of Tocagen Common Stock, in each case, outstanding as of the date of the Merger Agreement, are parties to support agreements with Tocagen and Forte, whereby such stockholders have agreed, subject to the terms of the support agreements, to vote their shares (or execute a written consent) in favor of the Tocagen Stockholder Matters or the Forte Stockholder Matters, as applicable.

In addition to the requirement of obtaining stockholder approval of the Closing Tocagen Stockholder Matters and Forte Stockholder Matters, each of the other closing conditions set forth in the Merger Agreement must be satisfied or waived. For a complete description of the closing conditions under the Merger Agreement, we urge you to read the section titled "*The Merger Agreement—Conditions to the Completion of the Merger*" beginning on page 147 of this proxy statement/prospectus/information statement.

Q: What proposals will be voted on at the Tocagen special meeting, other than the Closing Tocagen Stockholder Matters?

A: At the Tocagen special meeting, the holders of Tocagen Common Stock will also be asked to consider the following proposals, along with any other business that may properly come before the Tocagen special meeting or any adjournment or postponement thereof.

- Proposal No. 3 to approve a postponement or adjournment of the Tocagen special meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of Proposal Nos. 1 or 2.

Proposal Nos. 1 and 2 are not conditioned upon Proposal No. 3 being approved. Proposal Nos. 1 through 3 are referred to collectively in this proxy statement/prospectus/information statement as "the proposals."

Q: What will Forte's stockholders, option holders and warrant holders receive in the Merger?

A: Tocagen will assume outstanding and unexercised options to purchase shares of Forte Capital Stock, and in connection with the Merger such options will be converted into options to purchase shares of Tocagen Common Stock, with the number of Tocagen shares subject to such option, and the exercise price, being appropriately adjusted to reflect the Exchange Ratio, and any unvested Forte restricted stock awards, which will be exchanged for shares of Tocagen Common Stock to be unvested to the same extent as such Forte restricted stock awards and subject to the same restrictions as such Forte restricted stock awards. Each warrant to purchase Forte Common Stock outstanding and unexercised immediately prior to the Effective Time of the Merger will be assumed by Tocagen and will become a warrant to purchase shares of Tocagen Common Stock, with the number of shares and exercise price being adjusted by the Exchange Ratio. For a more complete description of what Forte's stockholders and option holders will receive in the Merger, please see the section titled "*Overview of the Merger Agreement and Agreements Related to the Merger Agreement—Merger Consideration and Exchange Ratio*" beginning on page 143 of this proxy statement/prospectus/information statement.

Q: What will Tocagen's stockholders, option holders and restricted stock unit holders receive in the Merger?

A: At the Effective Time, Tocagen's stockholders will continue to own and hold their existing shares of Tocagen Common Stock. All outstanding and unexercised options to purchase shares of Tocagen Common Stock with an exercise price of greater than $0.64 will be cancelled for no consideration immediately prior to the Effective Time. All of Tocagen's restricted stock units will vest at the Effective Time.

Q: Who will be the directors of Tocagen following the Merger?

A: At the Effective Time, the combined company is expected to initially have an eight-member board of directors, comprised of (a) Paul A. Wagner, Ph.D., Lawrence F. Eichenfield, M.D., Steven Kornfeld, Patricia Walker, M.D., Ph.D., Donald A. Williams and one additional member to be appointed prior to the closing of the Merger, each as a Forte designee and (b) Martin J. Duvall and Thomas E. Darcy, each as a Tocagen designee, until their respective successors are duly elected or appointed and qualified or their earlier death, resignation or removal. The aforementioned board of directors will have an audit committee, a compensation committee and a nominating and corporate governance committee, in accordance with the rules of The Nasdaq Stock Market LLC ("Nasdaq"). All of Tocagen's current directors other than Martin J. Duvall and Thomas E. Darcy are expected to resign from their positions as directors of Tocagen, effective upon the Effective Time.

Q: Who will be the executive officers of Tocagen following the Merger?

A: Immediately following the Merger, the executive management team of the combined company is expected to be comprised of the following individuals with such additional officers as may be added by Forte or the combined company:

Name	Position with the Combined Company	Current Position
Paul A. Wagner, Ph.D.	President, Chief Executive Officer, and Director	President, Chief Executive Officer and Director of Forte
Antony Riley	Chief Financial Officer	Chief Financial Officer of Forte

Q: As a stockholder of Tocagen, how does the Tocagen Board recommend that I vote?

A: After careful consideration, the Tocagen Board unanimously recommends that the Tocagen Common Stockholders vote:

- "FOR" Proposal No. 1 to approve an amendment to the amended and restated certificate of incorporation of Tocagen to effect the Reverse Split;

- "FOR" Proposal No. 2 to approve (i) the issuance of shares of Tocagen capital stock pursuant to the Merger, which will represent more than 20% of the shares of Tocagen Common Stock outstanding immediately prior to the Merger, and (ii) the change of control resulting from the Merger, pursuant to Nasdaq Listing Rules 5635(a) and 5635(b), respectively; and
- "FOR" Proposal No. 3 to adjourn the special meeting, if necessary to solicit additional proxies if there are not sufficient votes in favor of Proposal Nos. 1 or 2.

For more information on each proposal and the Tocagen Board's recommendations, please see the section entitled "*Matters Being Submitted to a Vote of Tocagen's Stockholders*" beginning on page 165 of this proxy statement/prospectus/information statement.

Q: How many votes are needed to approve each proposal?

A: Approval of Proposal No. 1 requires the affirmative vote of holders of a majority of Tocagen Common Stock outstanding as of the record date for the Tocagen special meeting. Approval of Proposal Nos. 2 and 3 requires the affirmative vote of a majority of the votes cast in person or by proxy at the special Meeting.

Q: As a stockholder of Forte, how does the Forte Board recommend that I vote?

A: After careful consideration, the board of directors of Forte (the "Forte Board") unanimously recommends that the Forte stockholders execute the written consent indicating their vote in favor of the Forte Stockholder Matters.

Q: What risks should I consider in deciding whether to vote in favor of the Tocagen Stockholder Matters or to execute and return the written consent, as applicable?

A: You should carefully review the section of the proxy statement/prospectus/information statement titled "*Risk Factors*," which sets forth certain risks and uncertainties related to the Merger, risks and uncertainties to which the combined company's business will be subject, and risks and uncertainties to which each of Tocagen and Forte, as an independent company, is subject.

Q: When do you expect the Merger to be consummated?

A: We anticipate that the Merger will be consummated during the second quarter of 2020, soon after the Tocagen special meeting to be held on , 2020 but we cannot predict the exact timing. For more information, please see the section titled "*The Merger Agreement—Conditions to the Completion of the Merger*" beginning on page 147 of this proxy statement/prospectus/information statement.

Q: What are the material U.S. federal income tax consequences of the Merger to U.S. Holders of Forte shares?

A: Tocagen and Forte intend the Merger to qualify as a reorganization within the meaning of Section 368(a) of the Internal Revenue Code of 1986, as amended (the "Code"), as described in the section titled "*The Merger—Material U.S. Federal Income Tax Consequences of the Merger*" beginning on page 133 of this proxy statement/prospectus/information statement. Subject to the limitations and qualifications described in the section titled "*The Merger—Material U.S. Federal Income Tax Consequences of the Merger*" beginning on page 133 of this proxy statement/prospectus/information statement, in the opinion of Cooley LLP ("Cooley") and Wilson Sonsini Goodrich & Rosati, P.C. ("WSGR"), the Merger will qualify as a reorganization with the meaning of Section 368(a) of the Code. Accordingly, Forte stockholders generally will not recognize gain or loss for U.S. federal income tax purposes on the receipt of shares of Tocagen Common Stock issued in connection with the Merger (other than in respect of cash received in lieu of fractional shares). Each Forte stockholder who receives cash in lieu of a fractional share of Tocagen

Common Stock generally will recognize capital gain or loss in an amount equal to the difference between the amount of cash received in lieu of such fractional share and the stockholder's tax basis allocable to such fractional share.

The tax consequences to each Forte stockholder will depend on that stockholder's particular circumstances. Each Forte stockholder should consult with his, her or its tax advisor for a full understanding of the tax consequences of the Merger to that stockholder.

Q: What are the material U.S. federal income tax consequences of the Reverse Split to U.S. Holders of Tocagen shares?

A: The Reverse Split should constitute a "recapitalization" for U.S. federal income tax purposes. As a result, a Tocagen stockholder who is a U.S. holder (as defined in the section titled "*Matters Being Submitted to a Vote of Tocagen's Stockholders—Proposal No. 1: Approval of an Amendment to the Amended and Restated Certificate of Incorporation of Tocagen Effecting the Reverse Split—Material U.S. Federal Income Tax Consequences of the Reverse Split*" beginning on page 168 of this proxy statement/prospectus/information statement) should not recognize gain or loss upon the Reverse Split (other than in respect of cash received in lieu of fractional shares). A U.S. holder's aggregate tax basis in the shares of Tocagen Common Stock received pursuant to the Reverse Split should equal the aggregate tax basis of the shares of Tocagen Common Stock surrendered (excluding any portion of such basis that is allocated to any fractional share of Tocagen Common Stock), and such U.S. holder's holding period in the shares of Tocagen Common Stock received should include the holding period in the shares of Tocagen Common Stock surrendered. Treasury Regulations provide detailed rules for allocating the tax basis and holding period of the shares of Tocagen Common Stock surrendered to the shares of Tocagen Common Stock received in a "recapitalization". U.S. holders of shares of Tocagen Common Stock acquired on different dates and at different prices should consult their tax advisors regarding the allocation of the tax basis and holding period of such shares.

Please review the information in the section titled "*Matters Being Submitted to a Vote of Tocagen's Stockholders—Proposal No. 1: Approval of an Amendment to the Amended and Restated Certificate of Incorporation of Tocagen Effecting the Reverse Split—Material U.S. Federal Income Tax Consequences of the Reverse Split*" beginning on page 168 of this proxy statement/prospectus/information statement for a more complete description of the material U.S. federal income tax consequences of the Reverse Split to Tocagen U.S. holders.

Q: What do I need to do now?

A: Tocagen and Forte urge you to read this proxy statement/prospectus/information statement carefully, including its annexes and information incorporated herein, and to consider how the Merger affects you.

If you are a common stockholder of Tocagen, you may provide your proxy instructions in one of four different ways. First, you can mail your signed proxy card in the enclosed return envelope. Second, you may provide your proxy instructions via phone by following the instructions on your proxy card or voting instruction form. Third, you may provide your proxy instructions via the Internet by following the instructions on your proxy card or voting instruction form. Finally, you may vote in person at the Tocagen special meeting, as described below. Please provide your proxy instructions only once, unless you are revoking a previously delivered proxy instruction, and as soon as possible so that your shares can be voted at the Tocagen special meeting. **If you sign, date and mail your proxy card without indicating how you wish to vote, your shares will be voted in favor of adoption of each of Proposals 1, 2 and 3.**

If you are a stockholder of Forte, you may execute and return your written consent to Forte in accordance with the instructions provided by Forte once this Registration Statement is declared effective by the U.S. Securities and Exchange Commission ("SEC").

Q: What happens if I do not return a proxy card or otherwise provide proxy instructions, as applicable?

A: If you are a common stockholder of Tocagen, the failure to return your proxy card or otherwise provide proxy instructions (a) will have the same effect as voting against Proposal No. 1, (b) will have no effect on Proposal No. 2 or No. 3 and (c) your shares will not be counted for purposes of determining whether a quorum is present at the Tocagen special meeting.

Q: When and where is the special meeting of Tocagen's stockholders?

A: The Tocagen special meeting will be held at , local time, on , 2020 at the offices of Cooley LLP located at 4401 Eastgate Mall, San Diego, CA 92121, unless postponed or adjourned to a later date. Subject to space availability, all of Tocagen's stockholders as of the record date, or their duly appointed proxies, may attend the Tocagen special meeting.

Tocagen is closely monitoring developments related to COVID-19. It could become necessary to change the date, time, location and/or means of holding the Tocagen special meeting (including by means of remote communication). If such a change is made, Tocagen will announce the change in advance, and details on how to participate will be issued by press release, posted on Tocagen's website and filed as additional proxy materials.

Q: May I vote in person at the special meeting of stockholders of Tocagen?

A: If your shares of Tocagen Common Stock are registered directly in your name with Tocagen's transfer agent as of the record date, you are considered to be the stockholder of record with respect to those shares, and the proxy materials and proxy card are being sent directly to you by Tocagen. If you are a stockholder of record of Tocagen, you may attend the Tocagen special meeting and vote your shares in person. Even if you plan to attend the Tocagen special meeting in person, Tocagen requests that you sign and return the enclosed proxy to ensure that your shares will be represented at the Tocagen special meeting if you become unable to attend. If your shares of Tocagen Common Stock are held in a brokerage account or by another nominee, you are considered the beneficial owner of shares held in "street name," and the proxy materials are being forwarded to you by your broker or other nominee together with a voting instruction card. As the beneficial owner, you are also invited to attend the Tocagen special meeting. Because a beneficial owner is not the stockholder of record, you may not vote these shares in person at the Tocagen special meeting unless you obtain a proxy from the broker, trustee or nominee that holds your shares, giving you the right to vote the shares at the Tocagen special meeting.

Q: How are votes counted?

A: Votes will be counted by the inspector of elections appointed for the meeting, who will separately count votes "FOR" and "AGAINST," abstentions and, if applicable, broker non-votes.

We do not expect that any matter other than Proposal Nos. 1 through 3 will be brought before the Tocagen special meeting.

Q: What are "broker non-votes"?

A: Brokers who hold shares in street name for customers have the authority to vote on "routine" proposals when they have not received instructions from beneficial owners. However, brokers are precluded from exercising their voting discretion with respect to approval of non-routine matters, such as Proposal No. 2, and, as a result, absent specific instructions from the beneficial owner of such shares, brokers are not empowered to vote those shares, referred to generally as "broker non-votes." Broker non-votes, if any, will be treated as shares that are present at the special meeting for purposes of determining whether a quorum exists but will not be counted or deemed present in person or by proxy for the purpose of voting on Proposal No. 2.

It is anticipated that Proposal Nos. 1 and 3 will be discretionary proposals considered routine under the rules of the New York Stock Exchange (the "NYSE"), which generally controls the ability of brokers to vote or not vote shares held in street name on certain matters, and thus will not result in broker non-votes.

Q: May I change my vote after I have submitted a proxy or provided proxy instructions?

A: Tocagen's common stockholders of record, other than those Tocagen stockholders who are parties to voting agreements, may change their vote at any time before their proxy is voted at the Tocagen special meeting in one of three ways. First, a stockholder of record of Tocagen can send a written notice to the Secretary of Tocagen stating that it would like to revoke its proxy. Second, a stockholder of record of Tocagen can submit new proxy instructions either on a new proxy card or via telephone or the Internet. Third, a stockholder of record of Tocagen can attend the Tocagen special meeting and vote in person. Attendance alone will not revoke a proxy. If a stockholder who owns Tocagen shares in "street name" has instructed a broker to vote its shares of Tocagen Common Stock, the stockholder must follow directions received from its broker to change those instructions.

Q: Who is paying for this proxy solicitation?

A: Forte will bear the cost of printing and filing of this proxy statement/prospectus/information statement and the proxy card. Arrangements will also be made with brokerage firms and other custodians, nominees and fiduciaries who are record holders of Tocagen Common Stock for the forwarding of solicitation materials to the beneficial owners of Tocagen Common Stock. In addition, Tocagen has engaged The Proxy Advisory Group, LLC, a proxy solicitation firm, to solicit proxies from Tocagen's stockholders for a fee of up to $22,500 plus certain additional costs associated with solicitation campaigns. Tocagen will reimburse these brokers, custodians, nominees and fiduciaries for the reasonable out-of-pocket expenses they incur in connection with the forwarding of solicitation materials. Fees paid to the SEC in connection with filing the statement/prospectus/information statement, and any amendments and supplements thereto, with the SEC will be paid by Forte.

Q: What is the quorum requirement?

A: A quorum of stockholders is necessary to hold a valid meeting. A quorum will be present if stockholders holding a majority of the issued and outstanding shares entitled to vote at a meeting are present at such meeting in person or represented by proxy. On the record date, there were 23,918,889 shares of Tocagen Common Stock outstanding and entitled to vote. Thus, the holders of 11,959,445 shares of Tocagen Common Stock must be present in person or represented by proxy at the Tocagen special meeting to have a quorum.

Your shares will be counted towards the quorum if you submit a valid proxy (or one is submitted on your behalf by your broker, bank or other nominee) or if you vote in person at the Tocagen special meeting. Abstentions and broker non-votes, if applicable, will also be counted towards the quorum requirement. If there is no quorum, the holders of a majority of shares at the meeting in person or represented by proxy may postpone or adjourn the meeting to another date.

Q: Should Tocagen's and Forte's stockholders send in their stock certificates now?

A: No. After the Merger is consummated, Forte's stockholders will receive written instructions from the exchange agent for exchanging their certificates representing shares of Forte Capital Stock for certificates representing shares of Tocagen's Common Stock. Each Forte stockholder who otherwise would be entitled to receive a fractional share of Tocagen Common Stock will be entitled to receive an amount in cash, without interest, determined by multiplying such fraction by the volume-weighted average closing trading price of a share of Tocagen Common Stock on Nasdaq for the five consecutive trading days ending five trading days immediately prior to the date upon which the Merger becomes effective.

In addition, Tocagen's stockholders will receive written instructions, as applicable, from Tocagen's transfer agent, Computershare Trust Company, N.A., for exchanging their certificates representing shares Tocagen Common Stock for new certificates giving effect to the Reverse Split, if effected. Tocagen's stockholders will also receive a cash payment in lieu of any fractional shares, determined by multiplying such fraction by the fair market value per share of Tocagen's Common Stock immediately prior to the effective time of the Reverse Split as determined by the Tocagen Board.

Q: Who can help answer my questions?

A: If you are a stockholder of Tocagen and would like additional copies, without charge, of this proxy statement/prospectus/information statement or if you have questions about the Merger, including the procedures for voting your shares, you should contact The Proxy Advisory Group, LLC, Tocagen's proxy solicitor, by telephone at 1 (212) 616-2180.

If you are a stockholder of Forte, and would like additional copies, without charge, of this proxy statement/prospectus/information statement or if you have questions about the Merger, including the procedures for voting your shares, you should contact:

Forte Biosciences, Inc.
1124 W. Carson Street
MRL Building 3-320
Torrance, CA 90502
Attn: Secretary

PROSPECTUS SUMMARY

This summary highlights selected information from this proxy statement/prospectus/information statement and may not contain all of the information that is important to you. To better understand the Merger, the proposals being considered at the Tocagen special meeting and Forte's stockholder actions that are the subject of the written consent, you should read this entire proxy statement/prospectus/information statement carefully, including the Merger Agreement attached as Annex A, the fairness opinion of Ladenburg Thalmann & Co. Inc. ("Ladenburg") attached as Annex B and the other annexes to which you are referred herein. For more information, please see the section titled "Where You Can Find More Information" beginning on page 273 of this proxy statement/prospectus/information statement.

The Companies

Tocagen Inc.

4445 Eastgate Mall, Suite 200
San Diego, CA 92121
(858) 412 8400

Until recently, Tocagen was a clinical-stage, cancer-selective gene therapy company developing broadly applicable product candidates designed to activate a patient's immune system against their own cancer. Tocagen had been developing its lead product candidate, Toca 511 (vocimagene amiretrorepvec) & Toca FC (extended-release flucytosine), for the treatment of recurrent high grade glioma ("HGG"), a brain cancer with limited treatment options, low survival rates and, therefore, a significant unmet medical need. Tocagen conducted a randomized, controlled Phase 3 clinical trial ("Toca 5") of Toca 511 & Toca FC in patients with recurrent HGG, which was designed to serve as a registrational trial. At the final analysis, the trial missed the primary endpoint of overall survival compared to the standard of care treatment (11.1 months median compared to 12.2 months, HR=1.06, p=0.6154). In addition, all secondary endpoints showed no meaningful difference between the arms of the trial. Tocagen discontinued further development of Toca 511 & Toca FC. In October 2019, Tocagen started taking steps to conserve its cash resources reduce operating expenses by substantially reducing its workforce and winding down and suspending its research and development activities while evaluating its strategic alternatives with a goal to enhance stockholder value, including the possibility of a merger or sale of Tocagen. Tocagen is continuing to provide study drug for patients who remain on therapy via investigator sponsored trials (principal investigator assumes responsibility) through single patient investigational new drug applications and is continuing its day-to-day business operations including the limited remaining activities required to wrap up the Toca 5 trial.

Forte Biosciences, Inc.

1124 W. Carson Street
MRL Building 3-320
Torrance, CA 90502
(310) 618-6994

Forte is a clinical-stage biopharmaceutical company focused on dermatology. Forte's lead product candidate, FB-401, is a live biotherapeutic for the treatment of inflammatory skin disease developed in collaboration with the National Institute of Health (the "NIH"), and the National Institute of Allergy and Infectious Diseases (the "NIAID"). FB-401 consists of three therapeutic strains of a commensal gram-negative bacteria, *Roseomonas mucosa,* that were specifically selected for their impact on key parameters of inflammatory skin disease. Forte has extensive preclinical and mechanism of action data demonstrating that FB-401 improves atopic dermatitis disease parameters by driving tissue repair and anti-inflammation as well as suppressing potentially harmful bacteria like *S. aureus*. To date, Forte has completed a Phase 1/2a study, including both

adults and pediatrics, demonstrating a significant reduction in atopic dermatitis disease and pruritus, as well as control of *S. aureus* while tapering/eliminating steroid use. Forte is currently planning to initiate a Phase 2 clinical trial in mid-2020.

The Merger (see page 103)

On February 19, 2020, Tocagen, Merger Sub, and Forte entered into the Merger Agreement, pursuant to which Merger Sub will merge with and into Forte, with Forte surviving as a wholly owned subsidiary of Tocagen. Tocagen Common Stock will be issued to the former Forte stockholders at the Effective Time. In connection with the closing of the Merger, Tocagen will change its name to "Forte Biosciences, Inc.," and Forte is expected to change its name to "Forte Subsidiary, Inc." References to the combined company in this proxy statement/prospectus/information statement are references to Tocagen following the Merger.

Concurrently with the execution of the Merger Agreement, Forte entered into the Securities Purchase Agreement with certain investors pursuant to which, among other things, Forte agreed to issue to the investors (i) an aggregate of 13,055,999 of shares of Forte Common Stock at a purchase price of $1.0769 per share, for gross proceeds of approximately $14.1 million and (ii) warrants to purchase an equal number of shares of Forte Common Stock purchased under the Securities Purchase Agreement, and on March 18, 2020 Forte entered into a Common Stock Purchase Agreement with certain investors pursuant to which, among other things, Forte agreed to issue to the investors approximately $5.2 million of shares of Forte Common Stock. The warrants to be issued pursuant to the Securities Purchase Agreement shall have an exercise price equal to that price per share of Tocagen Common Stock wherein Tocagen's market value, after the Merger, would be $120.0 million. The securities to be issued in the Pre-Closing Financing will be issued pursuant to an exemption from securities laws. The Tocagen Common Stock issuable upon exchange of the shares of Forte Common Stock pursuant to the Merger will be registered on this Registration Statement filed and declared effective by the SEC. The warrants to purchase Tocagen Common Stock issuable upon exchange of the warrants to purchase shares of Forte Common Stock will be issued pursuant to an exemption from securities laws. The Registration Statement will also register the issuance of the Tocagen Common Stock issuable upon exercise of the warrants, following Tocagen's assumption of the warrants in the Merger.

Tocagen and Forte expect the Merger to be consummated during the second quarter of 2020, subject to satisfaction or waiver of certain conditions, including, among other things, receipt of the requisite approval of Tocagen's and Forte's stockholders, including approval by the Tocagen Common Stockholders of (a)(i) the issuance of shares of Tocagen capital stock pursuant to the Merger, which will represent more than 20% of the shares of Tocagen Common Stock outstanding immediately prior to the Merger, and (ii) the change of control resulting from the Merger, pursuant to Nasdaq Listing Rules 5635(a) and 5635(b), respectively, and (b) an amendment to Tocagen's amended and restated certificate of incorporation to effect immediately prior to the closing of the Merger the Reverse Split at a ratio anywhere in the range between 8-for-1 and 15-for-1 (with the actual reverse stock split ratio to be mutually agreed upon by Tocagen and Forte prior to the effectiveness of the Merger).

Immediately following the consummation of the Merger, the equity holders of Forte (including the holders of any outstanding and unexercised options to purchase Forte Capital Stock) immediately prior to the Merger are expected to hold approximately 82.4% of the shares of Tocagen capital stock outstanding immediately following the Merger on a fully diluted treasury stock method basis, and the equity holders of Tocagen immediately prior to the Merger are expected to hold approximately 17.6% of the Tocagen capital stock outstanding immediately following the Merger on a fully diluted treasury stock basis, in each case, after giving effect to the Pre-Closing Financing and assuming Tocagen net cash of $3.0 million at the closing of the Merger and using the treasury stock method. As currently anticipated and assuming a $19.3 million investment in the Pre-Closing Financing, after the closing of the Pre-Closing Financing and consummation of the Merger, and assuming Tocagen holds $3.0 million of net cash at the closing of the Merger, the outstanding equity of Tocagen on a fully diluted treasury stock method basis will be held as follows: equity holders of former Forte Capital Stock (prior to the

Pre-Closing Financing) are expected to hold approximately 50.1%; the investors in the Pre-Closing Financing are expected to hold approximately 32.3%; and pre-Merger Tocagen equity holders are expected to hold approximately 17.6%. If Tocagen holds less than $3.0 million of net cash at the closing of the Merger, the equity holders of Tocagen (pre-merger) are expected to hold less than 17.6% of the Tocagen capital stock on a fully diluted treasury stock method basis. For a more complete description of the Merger and the potential adjustments in the Exchange Ratio, please see the section titled "*Overview of the Merger Agreement and Agreements Related to the Merger Agreement—Merger Consideration and Exchange Ratio*" beginning on page 143 of this proxy statement/prospectus/information statement.

Reasons for the Merger (see page 112 and 115)

The Tocagen Board considered various reasons to reach its determination (i) that the Merger, the Reverse Split and the other transactions and actions contemplated by the Merger Agreement (the "Contemplated Transactions") are advisable and fair to, and in the best interests of, Tocagen and its stockholders, (ii) to approve and declare advisable the Merger Agreement and the Contemplated Transactions, including the authorization and issuance of shares of Tocagen Common Stock to the stockholders of Forte pursuant to the terms of the Merger Agreement, and (iii) to recommend that, upon the terms and subject to the conditions set forth in the Merger Agreement, that the stockholders of Tocagen vote to approve the Tocagen Closing Stockholder Matters.

The Forte Board also considered various reasons to reach its determination (i) that the Merger is advisable and fair to, and in the best interests of, Forte and its stockholders, (ii) to approve the Merger Agreement, the Merger and the Contemplated Transactions and deem the Merger Agreement advisable and (iii) to recommend that its stockholders vote to approve the Forte Stockholder Matters.

Following the Merger, the combined company will be a clinical-stage biopharmaceutical company focused on advancing Forte's clinical program and developing a live biotherapeutic for the treatment of inflammatory skin diseases, particularly for pediatric atopic dermatitis patients for which there is currently a significant unmet need for safe and effective therapies. Among other reasons, Tocagen and Forte believe that the combined organization will have the following potential advantages:

- *Product Pipeline.* The combined company is expected to build upon and implement Forte's current plans for developing its lead asset, FB-401, a live biotherapeutic being developed as a topical therapy for the treatment of inflammatory skin diseases including atopic dermatitis.
- *Management Team.* It is expected that the combined organization will be led by the experienced senior management team from Forte and a board of directors of eight members with representation from each of Tocagen and Forte.
- *Cash Resources.* The combined company is expected to have the cash that Forte is expected to have in connection with the consummation of the Merger, which includes the cash that Forte currently holds, plus the gross proceeds from the Pre-Closing Financing of at least $19.3 million, in addition to the cash that Tocagen is expected to have in connection with the consummation of the Merger, assuming the disposition of the Company Assets, which Tocagen and Forte believe is sufficient to enable Forte to pursue its near term clinical trials and business plans.

The Tocagen Board considered other reasons for the Merger, including:

- The Tocagen Board and Ladenburg have undertaken a comprehensive and thorough process of reviewing and analyzing the potential merger transaction as well as reaching out to candidates for a variety of strategic transactions to identify the opportunity that would, in the Tocagen Board's opinion, create the most value for its stockholders;
- The Tocagen Board believes that, as a result of arm's length negotiations with Forte, Tocagen and its representatives negotiated the most favorable exchange ratio that Forte was willing to agree to, and that the terms of the Merger Agreement include the most favorable terms to Tocagen in the aggregate to which Forte was willing to agree;

- The Tocagen Board believes, after a thorough review of strategic alternatives and Tocagen's discussions with its financial advisors and legal counsel, as well as Tocagen management's discussions with Forte's senior management, that, compared to the Merger, no alternatives or other strategic options that may have been available to Tocagen, including remaining a standalone public company, were reasonably likely to create greater value for Tocagen's stockholders;
- the consequences of Tocagen's Phase 3 clinical trial of Toca 511 & Toca FC failing to meet its primary or secondary endpoints and the likelihood that Tocagen's prospects as a stand-alone company were unlikely to change for the benefit of Tocagen's stockholders in the foreseeable future;
- the risks associated with the need to obtain substantial amounts of financing to continue its operations and to continue the development of its gene therapy programs if Tocagen were to remain an independent company;
- the risks and delays associated with, and uncertain value and costs to Tocagen's stockholders of, liquidating Tocagen, including, without limitation, the uncertainties of continuing cash burn while contingent liabilities are resolved and uncertainty of timing of release of cash until contingent liabilities are resolved;
- the strength of the balance sheet of the combined company, which includes the cash that Forte currently holds, plus the gross proceeds from the Pre-Closing Financing of at least $14 million, in addition to the cash that Tocagen is expected to have in connection with the consummation of the Merger;
- the combined company will be led by an experienced industry chief executive and a board of directors with representation from the current boards of directors of Tocagen and Forte; and
- Forte's product pipeline and the potential market opportunity for Forte's products, that Forte's product candidates represent a sizeable potential market opportunity, and may thereby create value for the stockholders of the combined organization and an opportunity for Tocagen's stockholders to participate in the potential growth of the combined organization.

In addition, the Forte Board approved the Merger based on a number of reasons, including the following:

- the potential to provide the current Forte stockholders with greater liquidity by owning stock in a public company;
- Forte's need for capital to support the clinical development of its product candidates and the potential to access public market capital, including sources of capital from a broader range of investors than it could otherwise obtain if it continued to operate as a privately-held company;
- the expectation that the Merger would be a more time- and cost-effective means to access capital than other options considered; and
- the expectation that the Merger will qualify as a transaction described under Section 368(a) of the Code for U.S. federal income tax purposes, with the result that Forte's stockholders will generally not recognize taxable gain or loss for U.S. federal income tax purposes.

Tocagen's Unaudited Financial Projections Regarding Forte (see page 116)

In connection with the Tocagen Board's evaluation of the Merger, preliminary internal financial projections for Forte were prepared by the management of Forte and provided to the management of Tocagen, and then adjusted by the management of Tocagen (such adjusted projections, the "Tocagen-prepared Forte financial projections"). For a summary of the Tocagen-prepared Forte financial projections, please see the section titled *"The Merger—Tocagen's Unaudited Financial Projections Regarding Forte"* beginning on page 116 of this proxy statement/prospectus/information statement.

Opinion of the Tocagen Financial Advisor (see page 118)

The Tocagen Board engaged Ladenburg on October 24, 2019 to act as the financial advisor to the Tocagen Board to assist it in identifying and analyzing potential targets for a potential transaction and, if requested by the Tocagen Board, to render an opinion as to the fairness, from a financial point of view, to the Tocagen stockholders of the Exchange Ratio. On February 19, 2020, at the request of the Tocagen Board, Ladenburg rendered the oral opinion, subsequently confirmed by delivery of the written opinion dated February 19, 2020 (the "Opinion"), to the Tocagen Board, that the Exchange Ratio was fair, from a financial point of view, to the stockholders of Tocagen as of the date of such Opinion and based upon the various assumptions, qualifications and limitations set forth therein

The full text of the written Opinion is attached as *Annex B* to this proxy statement/prospectus/information statement and is incorporated by reference. Tocagen encourages its stockholders to read the Opinion in its entirety for the assumptions made, procedures followed, other matters considered and limits of the review by Ladenburg. The summary of the written Opinion set forth herein is qualified by reference to the full text of the Opinion. Ladenburg provided its Opinion for the sole benefit and use by Tocagen's Board in its consideration of the Merger. The Opinion is not a recommendation to the Tocagen Board or to any stockholder as to how to vote with respect to the proposed Merger or to take any other action in connection with the Merger or otherwise.

Overview of the Merger Agreement and Agreements Related to the Merger Agreement

Merger Consideration and Exchange Ratio (see page 143)

Pursuant to the Merger Agreement, at the Effective Time, each share of Forte Capital Stock outstanding immediately prior to the Effective Time (excluding shares to be canceled pursuant to the Merger Agreement and excluding dissenting shares but including any shares of Forte Capital Stock issued pursuant to the Pre-Closing Financing as per the Merger Agreement) will be automatically converted solely into the right to receive a number of shares of Tocagen Common Stock equal to the Exchange Ratio.

No fractional shares of Tocagen Common Stock will be issued in connection with the Merger, and no certificates or scrip for any such fractional shares shall be issued. Any holder of Forte Capital Stock who would otherwise be entitled to receive a fraction of a share of Tocagen Common Stock (after aggregating all fractional shares of Tocagen Common Stock issuable to such holder) will, in lieu of such fraction of a share and upon surrender by such holder of a letter of transmittal in accordance with the Merger Agreement and any accompanying documents as required therein, be paid in cash the dollar amount (rounded to the nearest whole cent), without interest, determined by multiplying such fraction by the Tocagen's volume weighted average closing trading price of a share of Tocagen Common Stock on Nasdaq for the five consecutive trading days ending five trading days immediately prior to the Effective Time. For a more complete description of the Exchange Ratio, please see the section titled "*Overview of the Merger Agreement and Agreements Related to the Merger Agreement—Merger Consideration and Exchange Ratio*" beginning on page 143 of this proxy statement/prospectus/information statement.

The Exchange Ratio formula is derived based upon a Forte Equity Value (as defined below) of $49.3 million and a Tocagen Equity Value (as defined below) of $15.0 million and is subject to adjustment based upon (a) the proceeds from the Pre-Closing Financing that are greater than $19.3 million and (b) Tocagen Net Cash at the closing of the Merger being greater than $10.0 or less than $7.5 million. Based upon the current size of the Pre-Closing Financing, the Forte Equity Value is $49.3 million. Tocagen may be unable to monetize its assets by entering into agreements for their disposition prior to Closing which could result in Tocagen being unable to meet the $3.0 million Tocagen net cash threshold (the "Net Cash Condition"). Tocagen anticipates holding between $2.0 million and $4.0 million of net cash at the closing of the Merger. The $3.0 million Tocagen net cash threshold is a condition to the completion of the Merger. If Tocagen does not meet the net cash threshold, Tocagen expects that Forte will waive the Net Cash Condition. There is no guarantee that Forte will waive the net cash closing condition. For a more complete description of the Merger and the potential adjustments in the Exchange Ratio, please see the section titled "*Overview of the Merger Agreement and*

Agreements Related to the Merger Agreement—Merger Consideration and Exchange Ratio" beginning on page 143 of this proxy statement/prospectus/information statement.

As currently anticipated and assuming an investment of approximately $19.3 million in the Pre-Closing Financing and assuming Tocagen holds $3.0 million of net cash at the closing of the Merger, the equity holders of Forte immediately before the Merger (inclusive of investors in the Pre-Closing Financing) are expected to own approximately 82.4% of the aggregate number of outstanding shares of Tocagen capital stock immediately after the closing of the Merger, and the equity holders of Tocagen immediately before the Merger are expected to own approximately 17.6% of the aggregate number of outstanding shares of Tocagen capital stock immediately after the closing of the Merger, in each case, on a fully-diluted treasury stock method basis, subject to the adjustments described above. If Tocagen holds less than $3.0 million of net cash at the closing of the Merger, the equity holders of Tocagen (pre-merger) are expected to hold less than 17.6% of the Tocagen capital stock on a fully diluted treasury stock method basis. For a more complete description of the Merger and the potential adjustments in the Exchange Ratio, please see the section titled "*Overview of the Merger Agreement and Agreements Related to the Merger Agreement —Merger Consideration and Exchange Ratio*" beginning on page 143 of this proxy statement/prospectus/information statement.

Treatment of Tocagen Stock Options and Restricted Stock Units

Prior to the closing of the Merger, the Tocagen Board will have adopted appropriate resolutions to provide that certain unexpired and unexercised Tocagen stock options, whether vested or unvested, will be cancelled effective as of immediately prior to the Effective Time in accordance with the Tocagen 2009 Equity Incentive Plan (the "2009 Plan") and the Tocagen 2017 Equity Incentive Plan (the "2017 Plan"), as applicable. As of immediately prior to the Effective Time, all outstanding and unexercised options to purchase shares of Tocagen Common Stock with an exercise price of greater than $0.64 will be cancelled and have no further force and effect. All outstanding and unexercised options to purchase shares of Tocagen Common Stock with an exercise price equal to or less than $0.64 will remain effective and outstanding. Such options to remain effective and outstanding are exercisable for an aggregate of 402,500 shares of Tocagen Common Stock. Of the options to remain effective and outstanding, our current executive officers and directors hold options to purchase an aggregate of 145,000 shares of Tocagen Common Stock. All Tocagen restricted stock units will vest at the Effective Time.

Treatment of Forte Stock Options

Under the terms of the Merger Agreement, each option to purchase shares of Forte Common stock that is outstanding and unexercised immediately prior to the Effective Time, whether or not vested, will be converted into an option to purchase shares of Tocagen Common Stock. Tocagen will assume the Forte 2018 Equity Incentive Plan, as amended, and all rights with respect to each outstanding option to purchase Forte Common Stock in accordance with its terms and the terms of the stock option agreement by which such option is evidenced.

Accordingly, from and after the Effective Time: (i) each outstanding Forte stock option assumed by Tocagen may be exercised solely for shares of Tocagen Common Stock; (ii) the number of shares of Tocagen Common Stock subject to each outstanding option assumed by Tocagen will be determined by multiplying (A) the number of shares of Forte Common Stock that were subject to such Forte stock option, as in effect immediately prior to the Effective Time, by (B) the Exchange Ratio and the Reverse Split, and rounding the resulting number down to the nearest whole number of shares of Tocagen Common Stock; (iii) the per share exercise price for the Tocagen Common Stock issuable upon exercise of each Forte stock option assumed by Tocagen shall be determined by dividing (A) the per share exercise price of Forte Common Stock subject to such Forte stock option, as in effect immediately prior to the Effective Time, by (B) the Exchange Ratio and the Reverse Split and rounding the resulting exercise price up to the nearest whole cent; and (iv) any restriction on the exercise of any Forte stock option assumed by Tocagen shall continue in full force and effect and the term, exercisability, vesting schedule, accelerated vesting provisions, and any other provisions of such Forte stock

option shall otherwise remain unchanged; provided, however, that the Tocagen Board or a committee thereof will succeed to the authority and responsibility of the Forte Board or any committee thereof with respect to each Forte stock option assumed by Tocagen. The number of shares of Tocagen Common Stock that is expected to be issued upon exercise of the Forte stock options, and the exercise price of such options, will also be adjusted for the Reverse Split.

Treatment of Forte Warrants

Under the terms of the Forte warrants issued pursuant to the Securities Purchase Agreement immediately prior to the Merger, upon consummation of the Merger, the surviving corporation will assume the Forte warrants and the obligation to deliver to each holder of the Forte warrants shares of Tocagen Common Stock upon exercise in accordance with the terms and conditions of the Forte warrants. The number of shares of Tocagen common stock that is expected to be issued upon exercise of Forte warrants will assume the same Exchange Ratio that applies to the Forte capital stock. The exercise price of the Forte warrants will be equal to the amount obtained by dividing (i) $120.0 million by (ii) the total number of shares of the surviving corporation outstanding immediately following the consummation of the Merger on a fully-diluted basis (excluding any shares issuable pursuant to the Forte warrants). The warrants are assumed to not be "in-the-money" at the Closing and, under the fully diluted treasury stock method basis, are thus excluded from the fully diluted percentages of ownership of the combined company described in this proxy statement/prospectus/information statement. The number of shares of Tocagen Common Stock that is expected to be issued upon exercise of the Forte warrants, and the exercise price of such warrants, will also be adjusted for the Reverse Split.

Conditions to the Completion of the Merger (see page 147)

The obligations to consummate the Merger and otherwise consummate the Contemplated Transactions shall be subject to receipt of the Required Forte Stockholder Vote, the required vote from Tocagen stockholders on the Closing Tocagen Stockholder Matters, the Net Cash Condition, and the satisfaction or waiver, on or prior to the Effective Time, of the other conditions set forth in the section titled "*The Merger Agreement—Conditions to the Completion of the Merger*" beginning on page 147 of this proxy statement/prospectus/information statement.

Non-Solicitation (see page 153)

Other than as necessary to communicate, discuss, negotiate or consummate the Permitted Asset Dispositions (as defined below) by Tocagen, both Tocagen and Forte are prohibited by the terms of the Merger Agreement from, directly or indirectly:

- soliciting, initiating or knowingly encouraging, inducing or facilitating the communication, making, submission or announcement of any Acquisition Proposal (as defined below) or Acquisition Inquiry (as defined below) or taking any action that could reasonably be expected to lead to an Acquisition Proposal or Acquisition Inquiry;
- furnishing any non-public information to any person in connection with or in response to an Acquisition Proposal or Acquisition Inquiry;
- engaging in discussions or negotiations with any person with respect to any Acquisition Proposal or Acquisition Inquiry;
- approving, endorsing or recommending any Acquisition Proposal;
- executing or entering into any letter of intent or any contract contemplating or otherwise relating to any Acquisition Transaction (as defined below) (other than a permitted confidentiality agreement); or
- publicly proposing to do any of the foregoing.

Either of Tocagen or Forte, as applicable, may furnish non-public information to and enter into discussions or negotiations with, any person in response to a *bona fide* written Acquisition Proposal, which its board of

directors determines in good faith, after consultation with its outside financial advisors and outside legal counsel, constitutes, or could be reasonably likely to result in, a Superior Offer (as defined below) (and is not withdrawn) if:

- neither it nor any of its representatives will have breached the non-solicitation restrictions in the Merger Agreement in any material respect;
- its board of directors concludes in good faith based on the advice of outside legal counsel, that the failure to take such action is reasonably likely to be inconsistent with the fiduciary duties of its board of directors under applicable law;
- it receives from such person an executed confidentiality agreement containing provisions, in the aggregate, at least as favorable to it as those contained in the non-disclosure and confidentiality agreement, dated as of December 6, 2019 between Forte and Tocagen; and
- substantially contemporaneously with furnishing any such nonpublic information to such person, it furnishes such nonpublic information to the other party (to the extent such information has not been previously furnished to the other party).

If Tocagen or Forte, or any of their respective representatives, receives an Acquisition Proposal or Acquisition Inquiry prior to Closing, then such party will promptly (and in no event later than one business day after it becomes aware of such Acquisition Proposal or Acquisition Inquiry) advise the other party orally and in writing of such Acquisition Proposal or Acquisition Inquiry (including the identity of the person making or submitting such Acquisition Proposal or Acquisition Inquiry and the material terms of the Acquisition Proposal or Acquisition Inquiry) and provide a copy of all material written materials relating to such Acquisition Proposal or Acquisition Inquiry. Each party will keep the other party informed on a current basis with respect to the status and material terms of any such Acquisition Proposal or Acquisition Inquiry and any material modification thereto.

Termination and Termination Fees (see page 160)

Upon termination of the Merger Agreement by Tocagen or Forte in certain circumstances a termination fee of $500,000 may be payable by Tocagen to Forte, or $1.0 million may be payable by Forte to Tocagen. Additionally, (i) in the event of a termination in connection with a Forte Triggering Event (as defined on page 156 of this proxy statement/prospectus/information statement), then a termination fee of $3.0 million may be payable by Forte to Tocagen, (ii) in the event of a termination by Tocagen in connection with entering into a definitive agreement in connection with a Superior Offer, then a termination fee of $750,000 may be payable by Tocagen to Forte and (iii) in the event of a termination by Forte in connection with Tocagen Closing Stockholder Matters not being approved at Tocagen special meeting expense reimbursement of up to $250,000 may be payable by Tocagen to Forte. For a more complete description of the termination provisions, please see the section titled "*The Merger Agreement—Termination and Termination Fees*" beginning on page 160 of this proxy statement/prospectus/information statement.

Support Agreements Tocagen (see page 164)

Concurrently with the execution of the Merger Agreement, (a) officers, directors and certain stockholders of Forte (solely in their respective capacities as Forte stockholders) who collectively beneficially owned or controlled approximately 95% of the voting power of Forte's outstanding capital stock as of February 19, 2020, entered into support agreements under which such stockholders agreed to, among other things, vote in favor of the adoption of the Merger Agreement and the approval of the Merger and the other transactions contemplated by the Merger Agreement; provided that in the event of a Forte Triggering Event, the obligation of such Forte stockholders to vote their shares of Forte Capital Stock will be modified and such stockholders will only be required to collectively vote an aggregate number of shares of Forte Capital Stock equal to 35% of the total voting power of the outstanding Forte Capital Stock, and (b) officers, directors and certain stockholders of

Tocagen (solely in their respective capacities as Tocagen stockholders), who collectively beneficially owned or controlled approximately 6% of the voting power of Tocagen's outstanding capital stock as of February 19, 2020, entered into support agreements under which such stockholders agreed to, among other things, vote in favor of the adoption of the Merger Agreement and the approval of the Merger and the other transactions contemplated by the Merger Agreement.

The support agreements will terminate at the earlier of the Effective Time or the termination of the Merger Agreement in accordance with its terms.

Lock-Up Agreements (see page 164)

Concurrently with the execution of the Merger Agreement, certain directors and officers of Tocagen and certain directors, officers and stockholders of Forte (but excluding the stockholders receiving shares of Forte in the Pre-Closing Financing as described below), entered into lock-up agreements, pursuant to which such individuals have agreed not to, except in limited circumstances, transfer or dispose of, any shares of Tocagen Common Stock or any securities convertible into, or exercisable or exchangeable for, shares of Tocagen Common Stock, including, as applicable, shares received in the Merger and issuable upon exercise of certain warrants and stock options, for a period of 180 days after the closing date of the Merger.

Pre-Closing Financing; Securities Purchase Agreement (see page 164)

Securities Purchase Agreement; Common Stock Purchase Agreement

Concurrent with the execution of the Merger Agreement, Forte entered into the Securities Purchase Agreement with certain investors pursuant to which, among other things, Forte agreed to issue to the investors (i) an aggregate of 13,055,999 of shares of Forte Common Stock at a purchase price of $1.0769 per share, for gross proceeds of approximately $14.1 million and (ii) warrants to purchase an equal number of shares of Forte Common Stock purchased under the Securities Purchase Agreement, and on March 18, 2020 Forte entered into a Common Stock Purchase Agreement with certain investors pursuant to which, among other things, Forte agreed to issue to the investors approximately $5.2 million of shares of Forte Common Stock. The warrants to be issued pursuant to the Securities Purchase Agreement shall have an exercise price equal to that price per share of Tocagen Common Stock wherein Tocagen's market value, after the Merger, would be $120.0 million.

Appraisal Rights (see page 137)

Tocagen stockholders are not entitled to appraisal rights in connection with the Merger. Holders of Forte Common Stock are entitled to (i) appraisal rights in connection with the Merger under Section 262 of the DGCL and (ii) dissenters' rights in accordance with Chapter 13 of the California Corporations Code (the "CCC"). For more information about such rights, please see the provisions of Section 262 of the DGCL attached as *Annex C*, the provisions of Chapter 13 of the CCC attached as *Annex D* and the section titled "*The Merger—Appraisal Rights and Dissenters' Rights*" beginning on page 137 of this proxy statement/prospectus/information statement.

Management Following the Merger (see page 222)

Immediately following the Merger, the executive management team of the combined company is expected to be comprised of the following individuals with such additional officers as may be added by Forte or the combined company:

Name	Position with the Combined Company	Current Position
Paul A. Wagner, Ph.D.	Chief Executive Officer, President and Director	Chief Executive Officer, President and Director of Forte
Antony Riley	Chief Financial Officer	Chief Financial Officer of Forte

Directors of the Combined Company Following the Merger

At the Effective Time, the combined company is expected to initially have an eight-member board of directors, comprised of (a) Paul A. Wagner, Ph.D., Dr. Lawrence Eichenfield, Steven Kornfeld, Patricia Walker, M.D., Ph.D., Donald A. Williams and one additional member to be appointed prior to the closing of the Merger, each as a Forte designee, and (b) Martin J. Duvall and Thomas E. Darcy, each as a Tocagen designee, until their respective successors are duly elected or appointed and qualified or their earlier death, resignation or removal.

The aforementioned board of directors will have an audit committee, a compensation committee and a nominating and corporate governance committee, in accordance with the Nasdaq rules. All of Tocagen's current directors, other than Martin J. Duvall and Thomas E. Darcy, are expected to resign from their positions as directors of Tocagen, effective as of the Effective Time.

Interests of Certain Directors, Officers and Affiliates of Tocagen and Forte (see pages 125 and 130)

In considering the recommendation of the Tocagen Board with respect to the issuance of Tocagen Common Stock pursuant to the Merger Agreement and the other matters to be acted upon by Tocagen's stockholders at the Tocagen special meeting, Tocagen's stockholders should be aware that certain members of the Tocagen Board and current and former executive officers of Tocagen have interests in the Merger that may be different from, or in addition to, interests they have as Tocagen's stockholders.

As of December 31, 2019, Tocagen's directors and executive officers (including affiliates) beneficially owned, in the aggregate approximately 6% of the outstanding shares of Tocagen Common Stock. As of December 31, 2019, Tocagen's named executive officers and directors collectively owned unvested Tocagen stock options covering 892,323 shares of Tocagen Common Stock and vested Tocagen stock options covering 1,365,527 shares of Tocagen Common Stock. Prior to the closing of the Merger, all outstanding and unexercised options to purchase shares of Tocagen Common Stock with an exercise price of greater than $0.64 will be cancelled and have no further force and effect. All outstanding and unexercised options to purchase shares of Tocagen Common Stock with an exercise price equal to or less than $0.64 will remain effective and outstanding. Such options to remain effective and outstanding are exercisable for an aggregate of 402,500 shares of Tocagen Common Stock. Of the options to remain effective and outstanding, our current executive officers and directors hold options to purchase an aggregate of 145,000 shares of Tocagen Common Stock.

The compensation arrangements with Tocagen's officers and directors are discussed in greater detail in the section titled "*The Merger—Interests of the Tocagen Directors and Executive Officers in the Merger*" beginning on page 125 of this proxy statement/prospectus/information statement. Additionally, as described elsewhere in this proxy statement/prospectus/information statement, including in the section captioned "*The Merger—Management Following the Merger*" beginning on page 130 of this proxy statement/prospectus/information statement, certain of Tocagen's directors are expected to become the directors of the combined company upon the closing of the Merger.

In considering the recommendation of the Forte Board with respect to adopting the Merger Agreement, Forte's stockholders should be aware that members of the Forte Board and the executive officers of Forte may have interests in the Merger that may be different from, or in addition to, the interests of Forte's stockholders. The Forte Board was aware of these potential conflicts of interest and considered them, among other matters, in reaching its decision to approve the Merger Agreement, the Merger, and the Contemplated Transactions.

As of December 31, 2019, Forte's directors and executive officers (including affiliates) beneficially owned, in the aggregate approximately 95% of the outstanding shares of Forte Capital Stock.

As described elsewhere in this proxy statement/prospectus/information statement, including in the section captioned "*The Merger—Management Following the Merger*," certain of Forte's directors and executive officers are expected to become the directors and executive officers of the combined company upon the closing of the Merger.

Tocagen's and Forte's executive officers and directors have also entered into support agreements, pursuant to which the directors, officers and certain stockholders of Tocagen and Forte, respectively, have agreed, solely in their capacity as stockholders of Tocagen and Forte, respectively, to vote all of their shares of Tocagen Common Stock or Forte Capital Stock in favor of, among other things, the adoption or approval, respectively, of the Merger Agreement and the transactions contemplated therein in connection with the Merger. The support agreements are discussed in greater detail in the section titled "*Agreements Related to the Merger*" beginning on page 164 of this proxy statement/prospectus/information statement.

Material U.S. Federal Income Tax Consequences of the Merger (see page 133)

Tocagen and Forte intend the Merger to qualify as a reorganization within the meaning of Section 368(a) of the Code, as described in the section titled "*The Merger—Material U.S. Federal Income Tax Consequences of the Merger*" beginning on page 133 of this proxy statement/prospectus/information statement. Subject to the limitations and qualifications described in the section titled "*The Merger—Material U.S. Federal Income Tax Consequences of the Merger*" beginning on page 133 of this proxy statement/prospectus/information statement, in the opinion of Cooley and WSGR, the Merger will qualify as a reorganization within the meaning of Section 368(a) of the Code. Accordingly, Forte stockholders generally will not recognize gain or loss for U.S. federal income tax purposes on the receipt of shares of Tocagen Common Stock issued in connection with the Merger (other than in respect of cash received in lieu of fractional shares). Each Forte stockholder who receives cash in lieu of a fractional share of Tocagen Common Stock generally will recognize capital gain or loss in an amount equal to the difference between the amount of cash received in lieu of such fractional share and the stockholder's tax basis allocable to such fractional share.

Risk Factors (see page 26)

Both Tocagen and Forte are subject to various risks associated with their businesses and their industries. In addition, the Merger, including the possibility that the Merger may not be completed, poses a number of risks to each company and its respective stockholders, including the following risks:

- The Exchange Ratio is not adjustable based on the market price of Tocagen Common Stock so the consideration at the closing of the Merger may have a greater or lesser value than at the time the Merger Agreement was signed;
- Failure to complete the Merger may result in Tocagen or Forte paying a termination fee to the other party and could harm the common stock price of Tocagen and future business and operations of each company;
- If the conditions to the closing of the Merger are not met, the Merger may not occur;
- The Merger may be completed even though material adverse changes may result from the announcement of the Merger, industry-wide changes and/or other causes;
- Some executive officers and directors of Tocagen and Forte have interests in the Merger that are different from the respective stockholders of Tocagen and Forte and that may influence them to support or approve the Merger without regard to the interests of the respective stockholders of Tocagen and Forte;
- The market price of Tocagen Common Stock following the Merger may decline as a result of the Merger;
- Forte and Tocagen securityholders will have a reduced ownership and voting interest in, and will exercise less influence over the management of, the combined company following the closing of the Merger as compared to their current ownership and voting interest in the respective companies;
- During the pendency of the Merger, Tocagen and Forte may not be able to enter into a business combination with another party at a favorable price because of restrictions in the Merger Agreement, which could adversely affect their respective businesses;

- Certain provisions of the Merger Agreement may discourage third parties from submitting competing proposals, including proposals that may be superior to the arrangements contemplated by the Merger Agreement;
- Because the lack of a public market for Forte Capital Stock makes it difficult to evaluate the fairness of the Merger, the shareholders of Forte may receive consideration in the Merger that is less than the fair market value of Forte Capital Stock and/or Tocagen may pay more than the fair market value of Forte's Capital Stock; and
- If any of the events described in under the sections titled "*Risk Factors—Risks Related to the Merger*" occur, those events could cause the potential benefits of the Merger not to be realized.

These risks and other risks are discussed in greater detail under the section titled "*Risk Factors*" beginning on page 26 of this proxy statement/prospectus/information statement. Tocagen and Forte encourage you to read and consider all of these risks carefully.

Regulatory Approvals (see page 133)

In the United States, Tocagen must comply with applicable federal and state securities laws and the rules and regulations of Nasdaq in connection with the issuance of shares of Tocagen Common Stock to Forte's stockholders in connection with the Contemplated Transactions by the Merger Agreement and the filing of this proxy statement/prospectus/information statement with the SEC. Tocagen does not intend to seek any regulatory approval from antitrust authorities to consummate the Contemplated Transactions.

Nasdaq Capital Market Listing (see page 165)

Shares of Tocagen's common stock are currently listed on The Nasdaq Global Select Market under the symbol "TOCA" although Tocagen plans to transfer its listing to The Nasdaq Capital Market prior to completion of the Merger and file an initial listing application with Nasdaq pursuant to Nasdaq's "reverse merger" rules. After completion of the Merger, Tocagen will be renamed Forte Biosciences, Inc. and expects to trade on The Nasdaq Capital Market under the symbol "FBRX."

Anticipated Accounting Treatment (see page 136)

The Merger will be treated by Tocagen as a reverse merger under the acquisition method of accounting in accordance with U.S. generally accepted accounting principles ("U.S. GAAP"). For accounting purposes, Forte is considered to be acquiring Tocagen in this transaction. The Merger will be accounted for under the acquisition method of accounting under existing U.S. GAAP, which are subject to change and interpretation. Under the acquisition method of accounting, management of Tocagen and Forte have made a preliminary estimated purchase price calculated as described in Note 3 to the Notes to the Unaudited Pro Forma Condensed Combined Financial Information. The net tangible and intangible assets acquired and liabilities assumed in connection with the Merger are at their estimated acquisition date fair values. The acquisition method of accounting is dependent upon certain valuations and other studies that have yet to commence or progress to a stage where there is sufficient information for a definitive measurement. A final determination of these estimated fair values, which cannot be made prior to the completion of the Merger, will be based on the actual net tangible and intangible assets of Tocagen that exist as of the date of completion of the Merger.

Description of Tocagen and Forte Capital Stock (see page 253)

Both Tocagen and Forte are incorporated under the laws of the State of Delaware and, accordingly, the rights of the stockholders of each are currently, and will continue to be, governed by the DGCL. If the Merger is completed, Forte stockholders will become Tocagen stockholders, and their rights will be governed by the DGCL, the amended and restated bylaws of Tocagen and the amended and restated certificate of incorporation of

Tocagen, as may be amended by Proposal No. 1 if approved by the Tocagen stockholders at the Tocagen special meeting. The rights of Tocagen stockholders contained in Tocagen's amended and restated certificate of incorporation, and amended and restated bylaws differ from the rights of Forte stockholders under Forte's current amended and restated certificate of incorporation and amended and restated bylaws, as more fully described under the section titled "*Comparison of Rights of Holders of Forte Stock and Tocagen Stock*" beginning on page 257 of this proxy statement/prospectus/information statement.

Tocagen Stockholder Meeting (see page 155)

The Tocagen special meeting will be held at , local time, on , 2020, at the offices of Cooley LLP located at 4401 Eastgate Mall, San Diego, CA 92121, unless postponed or adjourned to a later date. Subject to availability, all of Tocagen's stockholders as of the record date, or their duly appointed proxies, may attend the Tocagen special meeting. Tocagen is closely monitoring developments related to COVID-19. It could become necessary to change the date, time, location and/or means of holding the Tocagen special meeting (including by means of remote communication). If such a change is made, Tocagen will announce the change in advance, and details on how to participate will be issued by press release, posted on Tocagen's website and filed as additional proxy materials. For more information on the Tocagen special meeting, see the section entitled "*The Special Meeting of Tocagen's Stockholders*" beginning on page 99 of this proxy statement/prospectus/information statement.

SELECTED HISTORICAL AND UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL DATA

The following tables present summary historical financial data for Tocagen and Forte, summary unaudited pro forma condensed financial data for Tocagen and Forte, and comparative historical and unaudited pro forma per share data for Tocagen and Forte.

Selected Historical Financial Data of Tocagen

Not required for smaller reporting companies.

Selected Historical Consolidated Financial Data of Forte

Not required for smaller reporting companies.

Selected Unaudited Pro Forma Condensed Combined Financial Data of Tocagen and Forte

Not required for smaller reporting companies.

Comparative Historical and Unaudited Pro Forma Per Share Data

Not required for smaller reporting companies.

MARKET PRICE AND DIVIDEND INFORMATION

Tocagen Common Stock is currently listed on The Nasdaq Global Select Market under the symbol "TOCA." Forte is a private company and its common stock and preferred stock are not publicly traded.

Tocagen Common Stock

The closing price of Tocagen Common Stock on February 18, 2020, the full trading day immediately prior to the public announcement of the Merger on February 19, 2020, as reported on The Nasdaq Global Select Market, was $0.5440 per share. The closing price of Tocagen Common Stock on , 2020, as reported on The Nasdaq Global Select Market, was $ per share.

Because the market price of Tocagen Common Stock is subject to fluctuation, the market value of the shares of Tocagen Common Stock that Forte stockholders will be entitled to receive in the Merger may increase or decrease.

Assuming successful application for initial listing with Nasdaq, following the consummation of the Merger, Tocagen anticipates that the Tocagen Common Stock will continue to be listed on The Nasdaq Capital Market and will trade under Tocagen's new name "Forte Biosciences, Inc." and new trading symbol "FBRX" on The Nasdaq Capital Market

As of April 20, 2020, the record date for the Tocagen special meeting, there were approximately 311 holders of record of the Tocagen Common Stock.

Dividends

Tocagen has never declared or paid any cash dividends on the Tocagen Common Stock and does not anticipate paying cash dividends on the Tocagen Common Stock for the foreseeable future. Notwithstanding the foregoing, any determination to pay cash dividends subsequent to the Merger will be at the discretion of the combined organization's then-current board of directors and will depend upon a number of factors, including the combined organization's results of operations, financial condition, future prospects, contractual restrictions, restrictions imposed by applicable law and other factors the then-current board of directors deems relevant.

Forte has never declared or paid any cash dividends on shares of the Forte Capital Stock. Forte anticipates that the combined company will retain all of its future earnings to advance the clinical trials for its products, and does not anticipate paying any cash dividends on shares of its common stock in the foreseeable future. Any future determination to declare cash dividends on shares of the combined company's common stock will be made at the discretion of its board of directors, subject to applicable law and contractual restrictions and will depend on its financial condition, results of operations, capital requirements, general business conditions and other factors that its board of directors may deem relevant.

RISK FACTORS

The combined company will be faced with a market environment that cannot be predicted and that involves significant risks, many of which will be beyond its control. In addition to the other information contained in this proxy statement/prospectus/information statement, you should carefully consider the material risks described below before deciding how to vote your shares of Tocagen Common Stock. You should also read and consider the other information in this proxy statement/prospectus/information statement. Please see the section titled "Where You Can Find More Information" on page 273 of this proxy statement/prospectus/information statement.

Risks Related to the Merger

The Exchange Ratio is not adjustable based on the market price of Tocagen Common Stock so the consideration at the closing of the Merger may have a greater or lesser value than at the time the Merger Agreement was signed.

The relative proportion of the combined company that the Tocagen stockholders will own when the Merger closes will be based on the relative valuations of Tocagen and Forte as negotiated by the parties and as specified in the Merger Agreement. Following the completion of the Merger, (a) Tocagen equity holders immediately prior to the Merger are expected to own approximately 17.6% of the common stock of the combined company and (b) Forte equity holders (including shares issued in Forte's Pre-Closing Financing) are expected to own approximately 82.4% of the capital stock of the combined company, on a fully-diluted treasury stock method basis, assuming that Forte closes its Pre-Closing Financing immediately prior to the effective time of the Merger and assuming $3.0 million in Tocagen Net Cash at the closing of the Merger. These estimates are based on the anticipated Exchange Ratio and are subject to adjustment as provided in the Merger Agreement. If Tocagen holds less than $3.0 million of net cash at the closing of the Merger, the equity holders of Tocagen (pre-merger) are expected to hold less than 17.6% of the Tocagen capital stock on a fully diluted treasury stock method basis. For a more complete description of the Merger and the potential adjustments in the Exchange Ratio, please see the section titled "*Overview of the Merger Agreement and Agreements Related to the Merger Agreement —Merger Consideration and Exchange Ratio*" beginning on page 143 of this proxy statement/prospectus/information statement. In addition, if Tocagen Net Cash at the Effective Time is less than $3.0 million, Forte has the right to terminate the Merger Agreement. Tocagen expects that Forte will waive the Net Cash Condition, but there is no guarantee that Forte will waive the net cash closing condition.

Failure to complete the Merger may result in Tocagen or Forte paying a termination fee to the other party and could harm the common stock price of Tocagen and future business and operations of each company.

If the Merger is not completed, each of Tocagen and Forte is subject to the following risks:

- upon termination of the Merger Agreement, Forte may be required to pay Tocagen a termination fee of $1.0 million or $3.0 million, under certain circumstances, or Tocagen may be required to pay Forte a termination fee of $500,000 or $750,000, under certain circumstances, and/or up to $250,000 in expense reimbursements;
- the parties will have incurred significant expenses related to the Merger, such as legal and accounting fees, which must be paid even if the Merger is not completed; and
- Tocagen may be forced to cease its operations, dissolve and liquidate its assets.

In addition, if the Merger Agreement is terminated and the board of directors of Tocagen or Forte determines to seek another business combination, there can be no assurance that either Tocagen or Forte will be able to find a partner willing to provide equivalent or more attractive consideration than the consideration to be provided by each party in the Merger or any partner at all.

If the conditions to the closing of the Merger are not met, the Merger may not occur.

Even if the change of control and related share issuance are approved by the stockholders of Tocagen, specified conditions must be satisfied or waived to complete the Merger. These conditions are set forth in the

Merger Agreement and described in the section entitled "*The Merger Agreement—Conditions to the Completion of the Merger*" beginning on page 147 of this proxy statement/prospectus/information statement, such as Forte's Pre-Closing Financing. Tocagen and Forte cannot assure you that all of the conditions will be satisfied or waived. If the conditions are not satisfied or waived, the Merger may not occur or will be delayed, and Tocagen and Forte each may lose some or all the intended benefits of the Merger.

The Merger may be completed even though material adverse changes may result from the announcement of the Merger, industry-wide changes and/or other causes.

In general, either Tocagen or Forte can refuse to complete the Merger if there is a material adverse change affecting the other party between February 19, 2020, the date of the Merger Agreement, and the closing of the Merger. However, certain types of changes do not permit either party to refuse to complete the Merger, even if such change could be said to have a material adverse effect on Tocagen or Forte, including:

- general business or economic conditions generally affecting the industry in which Forte or Tocagen operate;
- natural disasters, acts of war, armed hostilities or terrorism;
- changes in financial, banking or securities markets;
- any change in the stock price or trading volume of Tocagen Common Stock;
- any failure by Forte to meet internal projections or forecasts or third party revenue or earnings predictions for any period ending (or for which revenues or earnings are released) on or after the date of the Merger Agreement;
- the failure of Tocagen to meet internal or analysts' expectations or projections or the results of operations of Tocagen;
- any change in, or any compliance with or action taken for the purpose of complying with, any law or U.S. GAAP (or interpretations of any law or U.S. GAAP);
- resulting from the announcement of this Agreement or the pendency of the Contemplated Transactions.

If adverse changes occur and Tocagen and Forte still complete the Merger, the stock price of the combined company following the closing of the Merger may suffer. This in turn may reduce the value of the Merger to the stockholders of Tocagen, Forte or both.

Some executive officers and directors of Tocagen and Forte have interests in the Merger that are different from the respective stockholders of Tocagen and Forte and that may influence them to support or approve the Merger without regard to the interests of the respective stockholders of Tocagen and Forte.

Some officers and directors of Tocagen and Forte are parties to arrangements that provide them with interests in the Merger that are different from the respective stockholders of Tocagen and Forte, including, among others, service as an officer or director of the combined company following the closing of the Merger, severance and retention benefits, the acceleration of equity award vesting, and continued indemnification. For more information regarding the interests of the Tocagen and Forte executive officers and directors in the Merger, see the sections entitled "*The Merger—Interests of the Tocagen Directors and Executive Officers in the Merger*" and "*The Merger—Interests of the Forte Directors and Executive Officers in the Merger*" of this proxy statement/prospectus/information statement.

The market price of Tocagen Common Stock following the Merger may decline as a result of the Merger.

The market price of Tocagen Common Stock may decline as a result of the Merger for a number of reasons, including if:

- investors react negatively to the prospects of the combined company's business and prospects following the closing of the Merger;

- the effect of the Merger on the combined company's business and prospects following the closing of the Merger is not consistent with the expectations of financial or industry analysts; or
- the combined company does not achieve the perceived benefits of the Merger as rapidly or to the extent anticipated by stockholders or financial or industry analysts.

Forte and Tocagen securityholders will have a reduced ownership and voting interest in, and will exercise less influence over the management of, the combined company following the closing of the Merger as compared to their current ownership and voting interest in the respective companies.

After the completion of the Merger, the current securityholders of Forte and Tocagen will own a smaller percentage of the combined company than their ownership in their respective companies prior to the Merger. Immediately after the Merger, it is currently estimated that Forte equity holders as of immediately prior to the Merger (including shares issued in Forte's Pre-Closing Financing) will own approximately 82.4% of the capital stock of the combined company, with Tocagen equity holders as of immediately prior to the Merger, whose shares of Tocagen Common Stock will remain outstanding after the Merger, will own approximately 17.6% of the common stock of the combined company on a fully-diluted treasury stock method basis, calculated on a pro forma basis including after giving effect to (i) the Pre-Closing Financing by Forte immediately prior to the effective time of the Merger, and (ii) the Merger assuming Tocagen holds $3.0 million of net cash at the closing of the Merger. These estimates are based on the anticipated Exchange Ratio and are subject to adjustment as provided in the Merger Agreement. For a more complete description of the Merger and the potential adjustments in the Exchange Ratio, please see the section titled "*Overview of the Merger Agreement and Agreements Related to the Merger Agreement—Merger Consideration and Exchange Ratio*" beginning on page 143 of this proxy statement/prospectus/information statement.

In addition, the eight member board of directors of the combined company will initially consist of six individuals with prior affiliations with Forte and two individuals with prior affiliates with Tocagen. Consequently, securityholders of Forte and Tocagen will be able to exercise less influence over the management and policies of the combined company following the closing of the Merger than they currently exercise over the management and policies of their respective companies.

During the pendency of the Merger, Tocagen and Forte may not be able to enter into a business combination with another party at a favorable price because of restrictions in the Merger Agreement, which could adversely affect their respective businesses.

Covenants in the Merger Agreement impede the ability of Tocagen and Forte to make acquisitions, subject to specified exceptions relating to fiduciary duties, or complete other mergers, sales of assets or other business combinations that are not in the ordinary course of business pending completion of the Merger. As a result, if the Merger is not completed, the parties may be at a disadvantage to their competitors during that period. In addition, while the Merger Agreement is in effect, each party is generally prohibited from soliciting, initiating, encouraging or entering into specified extraordinary transactions, such as a merger, sale of assets or other business combination, with any third party, subject to specified exceptions, even if any such transaction could be favorable to such party's stockholders.

Certain provisions of the Merger Agreement may discourage third parties from submitting competing proposals, including proposals that may be superior to the arrangements contemplated by the Merger Agreement.

The terms of the Merger Agreement prohibit each of Tocagen and Forte from soliciting competing proposals or cooperating with persons making unsolicited takeover proposals, except in limited circumstances when such party's board of directors determines in good faith, after consultation with its independent financial advisor, if any, and outside counsel, that an unsolicited competing proposal constitutes, or would reasonably be expected to

result in, a superior competing proposal and that failure to take such action would result in a breach of the fiduciary duties of the board of directors. In addition, if Tocagen or Forte terminate the Merger Agreement under specified circumstances, including terminating because of a decision of a board of directors to recommend a superior competing proposal, Forte may be required to pay Tocagen a termination fee of $1.0 million or $3.0 million or Tocagen may be required to pay Forte a termination fee of $500,000 or $750,000, or up to $250,000 in expense reimbursements, as defined and described under "*The Merger Agreement—Termination of the Merger Agreement and Termination Fee.*" This termination fee may discourage third parties from submitting competing proposals to Tocagen or Forte or their stockholders and may cause the respective boards of directors to be less inclined to recommend a competing proposal.

Because the lack of a public market for Forte's capital stock makes it difficult to evaluate the fairness of the Merger, the shareholders of Forte may receive consideration in the Merger that is less than the fair market value of Forte's capital stock and/or Tocagen may pay more than the fair market value of Forte's capital stock.

The outstanding capital stock of Forte is privately held and is not traded in any public market. The lack of a public market makes it extremely difficult to determine the fair market value of Forte's capital stock. Because the percentage of Tocagen equity to be issued to Forte shareholders was determined based on negotiations between the parties, it is possible that the value of the Tocagen Common Stock to be received by Forte shareholders will be less than the fair market value of Forte's capital stock, or Tocagen may pay more than the aggregate fair market value for Forte's capital stock.

Because the Merger will result in an ownership change under Section 382 of the Code for Tocagen, Tocagen's pre-merger net operating loss ("NOL") carryforwards and certain other tax attributes will be subject to limitations. The NOL carryforwards and other tax attributes of Forte and of the combined organization may also be subject to limitations as a result of ownership changes.

As of December 31, 2019, Tocagen had U.S. federal NOL carryforwards and state NOL carryforwards of $231.0 million and $76.0 million, respectively, and Forte had U.S. federal NOL carryforwards and state NOL carryforwards of approximately $2 million and $2 million, respectively. If a corporation undergoes an "ownership change" within the meaning of Section 382 of the Code ("Section 382"), the corporation's NOL carryforwards and certain other tax attributes arising before the ownership change are subject to limitations on use after the ownership change. In general, an ownership change occurs if there is a cumulative change in the corporation's equity ownership by certain stockholders that exceeds fifty percentage points over a rolling three-year period. Similar rules may apply under state tax laws. The Merger will result in an ownership change for Tocagen and, accordingly, Tocagen's NOL carryforwards and certain other tax attributes will be subject to limitations (or disallowance) on their use after the Merger. Forte's NOL carryforwards may also be subject to limitation as a result of prior shifts in equity ownership and/or the Merger. Additional ownership changes in the future could result in additional limitations on Tocagen's, Forte's and the combined organization's NOL carryforwards. Consequently, even if the combined organization achieves profitability, it may not be able to utilize a material portion of Tocagen's, Forte's or the combined organization's NOL carryforwards and other tax attributes, which could have a material adverse effect on cash flow and results of operations. For more information on limitations on NOL carryforwards and certain other tax attributes, see *"Risk Factors—Risks related to ownership of Tocagen's common stock—Tocagen's ability to use Tocagen's NOL carryforwards and certain other tax attributes may be limited,"* and *"Risk Factors—Risks related to Forte's business, technology and industry—Forte's ability to use net operating losses and research and development credits to offset future taxable income or tax liability may be subject to certain limitations,"* below.

Risks Related to Tocagen

Risks related to Tocagen's business and financial condition

Tocagen has incurred losses since inception and anticipates that it will incur continued losses for the foreseeable future.

Tocagen is not profitable and has incurred net losses in each year since its inception in 2007, including net losses of $63.5 million, $49.0 million and $38.9 million for the years ended December 31, 2019, 2018 and 2017, respectively. As of December 31, 2019, Tocagen had an accumulated deficit of $279.4 million. These losses, among other things, have had and will continue to have an adverse effect on Tocagen's stockholders' equity and working capital.

A substantial portion of Tocagen's recent efforts and expenditures have been devoted to, and Tocagen's prospects were substantially dependent upon, the development of Toca 511 & Toca FC for the treatment of recurrent high grade glioma. Tocagen conducted a randomized, controlled Phase 3 clinical trial ("Toca 5") of Toca 511 & Toca FC in patients with recurrent HGG, which was designed to serve as a registrational trial. Tocagen received the data from this trial in September 2019. At the final analysis, the trial missed the primary endpoint of overall survival compared to the standard of care treatment (11.1 months median compared to 12.2 months, HR=1.06, p=0.6154). In addition, all secondary endpoints showed no meaningful difference between the arms of the trial. The failure of the Toca 5 trial to achieve its primary and secondary endpoints has significantly depressed Tocagen's stock price and has severely harmed Tocagen's ability to raise additional capital and to secure potential collaborative, partnering or other strategic arrangements for Tocagen's programs, and consequently, Tocagen's prospects to continue as a going concern have been severely diminished. Following Tocagen's review of the full data sets from the Toca 5 trial, Tocagen determined to discontinue further development of Toca 511 & Toca FC. Tocagen continues its efforts to seek potential collaborative, partnering or other strategic arrangements for Tocagen's programs, including a sale or other divestiture of Tocagen's program assets. While Tocagen is currently determining third party interest in partnering or acquiring the Tocagen's program assets, Tocagen may be unable to partner or divest the program assets in a timely manner, or at all, and therefore may not receive any return on Tocagen's investment in the program assets, including Toca 511 & Toca FC. If the combined company does not have sufficient funds, the combined company will not be able to advance the development of its product candidates or otherwise bring its product candidates to market and generate product revenues.

Tocagen is substantially dependent on its remaining employees to facilitate the consummation of the Merger.

Tocagen has substantially reduced its workforce since September 2019 and as of April 22, 2020, Tocagen has only five full-time employees. Such employees' employment with Tocagen will terminate upon the closing of the Merger. Tocagen's ability to successfully complete the Merger depends in large part on Tocagen's ability to retain certain of its remaining personnel. Despite Tocagen's efforts to retain these employees, one or more may terminate their employment with Tocagen on short notice. The loss of the services of any of these employees could potentially harm Tocagen's ability to consummate the Merger, to run Tocagen's day-to-day business operations, as well as to fulfill Tocagen's reporting obligations as a public company.

Management transition creates uncertainties and could harm Tocagen's business.

Tocagen has in the past, and may again in the future, experience significant changes in executive leadership. Changes to company strategy, which can often times occur with the appointment of new executives, can create uncertainty, may negatively impact Tocagen's ability to execute quickly and effectively, and may ultimately be unsuccessful. In addition, executive leadership transition periods are often difficult as the new executives gain detailed knowledge of Tocagen's operations, and friction can result from changes in strategy and management style. Management transition inherently causes some loss of institutional knowledge, which can negatively affect strategy and execution. Until Tocagen integrates new personnel, and unless they are able to succeed in their

positions, Tocagen may be unable to successfully manage and grow its business, and Tocagen's results of operations and financial condition could suffer as a result. In any event, changes in Tocagen's organization as a result of executive management transition may have a disruptive impact on Tocagen's ability to implement its strategy and could have a material adverse effect on Tocagen's business, financial condition and results of operations.

The pendency of the Merger could have an adverse effect on the trading price of Tocagen's common stock and Tocagen's business, financial condition and prospects.

While there have been no significant adverse effects to date, the pendency of the Merger could disrupt Tocagen's business in many ways, including:

- the attention of Tocagen's remaining management and employees may be directed toward the completion of the Merger and related matters and may be diverted from Tocagen's day-to-day business operations; and
- third parties may seek to terminate or renegotiate their relationships with Tocagen as a result of the Merger, whether pursuant to the terms of their existing agreements with Tocagen or otherwise.

Should they occur, any of these matters could adversely affect the trading price of Tocagen's common stock or harm Tocagen's business, financial condition and prospects.

Tocagen is dependent on ApolloBio Corp. to develop and commercialize Toca 511 & Toca FC within the greater China region, including mainland China, Hong Kong, Macao and Taiwan. Failure of ApolloBio or any other third parties to successfully develop and commercialize Toca 511 & Toca FC in the applicable jurisdictions could have a material adverse effect on Tocagen's business.

Tocagen has granted ApolloBio an exclusive license to develop and commercialize Toca 511 & Toca FC within the greater China region, including mainland China, Hong Kong, Macao and Taiwan. Tocagen have limited contractual rights to force ApolloBio to invest significantly in the development and commercialization of Toca 511 & Toca FC.

In the event that ApolloBio or any other third party with any future development and commercialization rights to any of Tocagen's product candidates fails to adequately develop and commercialize those product candidates because they lack adequate financial or other resources, decide to focus on other initiatives or otherwise, Tocagen's ability to successfully develop and commercialize Tocagen's product candidates in the applicable jurisdictions would be limited, which would adversely affect Tocagen's business, financial condition, results of operations and prospects. In addition, Tocagen's license agreement with ApolloBio may be terminated by either party upon a material breach by the other party that remains uncured following 60 days (or, with respect to any payment breach, 10 days) after the date of written notice of such breach, may be terminated by ApolloBio at any time by providing Tocagen 90 days' prior written notice and may be terminated by Tocagen upon written notice to ApolloBio under specified circumstances if ApolloBio challenges the licensed patent rights. If Tocagen or ApolloBio terminate Tocagen's license agreement, Tocagen's ability to develop and commercialize Toca 511 & Toca FC within the greater China region, including mainland China, Hong Kong, Macao and Taiwan, would be materially harmed.

If product liability lawsuits are brought against Tocagen, Tocagen may incur substantial liabilities and may be required to limit commercialization of Tocagen's product candidates.

Tocagen faces an inherent risk of product liability as a result of the clinical testing of Tocagen's product candidates and will face an even greater risk if Tocagen commercializes any products. For example, Tocagen may be sued if Tocagen's product candidates cause or are perceived to cause injury or are found to be otherwise unsuitable during clinical testing, manufacturing, marketing or sale. Any such product liability claims may

include allegations of defects in manufacturing, defects in design, a failure to warn of dangers inherent in the product, negligence, strict liability or a breach of warranties. Claims could also be asserted under state consumer protection acts. If Tocagen cannot successfully defend itself against product liability claims, Tocagen may incur substantial liabilities or be required to limit commercialization of Tocagen's product candidates. Even successful defense would require significant financial and management resources. Regardless of the merits or eventual outcome, liability claims may result in:

- decreased demand for Tocagen's product candidates;
- injury to Tocagen's reputation;
- withdrawal of clinical trial participants;
- initiation of investigations by regulators;
- costs to defend the related litigation;
- a diversion of management's time and Tocagen's resources;
- substantial monetary awards to clinical trial participants or patients;
- product recalls, withdrawals or labeling, marketing or promotional restrictions;
- exhaustion of any available insurance and Tocagen's capital resources;
- loss of revenue;
- the inability to commercialize any product candidate; and
- a decline in Tocagen's share price.

Tocagen's inability to obtain sufficient product liability insurance at an acceptable cost to protect against potential product liability claims could prevent or inhibit the commercialization of any products Tocagen develops, alone or with corporate collaborators. Tocagen currently carries $5 million of product liability insurance covering Tocagen's clinical trials. Although Tocagen maintains such insurance, Tocagen's insurance policies may have various exclusions, and Tocagen may be subject to a product liability claim for which Tocagen has no coverage. Tocagen may have to pay any amounts awarded by a court or negotiated in a settlement that exceed Tocagen's coverage limitations or that are not covered by Tocagen's insurance, and Tocagen may not have, or be able to obtain, sufficient capital to pay such amounts. Even if Tocagen's agreements with any future corporate collaborators entitle Tocagen to indemnification against losses, such indemnification may not be available or adequate should any claim arise.

Tocagen's internal computer systems, or those used by Tocagen's CROs, SaaS providers, contractors or consultants, may fail or suffer security breaches.

Despite the implementation of security measures, Tocagen's internal computer systems and those of Tocagen's CROs, SaaS providers, contractors and consultants are vulnerable to damage from computer viruses and unauthorized access. While Tocagen has not experienced any such material system failure or security breach to date, if such an event were to occur and cause interruptions in Tocagen's operations, it could result in a material disruption of Tocagen's development programs and Tocagen's business operations. For example, the loss of clinical trial data from completed or future clinical trials could result in delays in Tocagen's regulatory approval efforts and significantly increase Tocagen's costs to recover or reproduce the data. To the extent that any disruption or security breach were to result in a loss of, or damage to, Tocagen's data or applications, or inappropriate disclosure of confidential or proprietary information, Tocagen could incur liability, and the further development and commercialization of Tocagen's product candidates could be delayed.

Tocagen business could be negatively impacted by cyber security threats.

In the ordinary course of Tocagen's business, Tocagen uses its data centers and networks to store and access its proprietary business information. Tocagen faces various cyber security threats, including cyber security

attacks to Tocagen's information technology infrastructure and attempts by others to gain access to Tocagen's proprietary or sensitive information. The procedures and controls Tocagen uses to monitor these threats and mitigate Tocagen's exposure may not be sufficient to prevent cyber security incidents. The result of these incidents could include disrupted operations, lost opportunities, misstated financial data, liability for stolen assets or information, increased costs arising from the implementation of additional security protective measures, litigation and reputational damage. Any remedial costs or other liabilities related to cyber security incidents may not be fully insured or indemnified by other means.

Business disruptions could seriously harm Tocagen's future revenue and financial condition and increase Tocagen's costs and expenses.

Tocagen's operations, and those of Tocagen's CROs, contractors and consultants, could be subject to power shortages, telecommunications failures, wildfires, water shortages, floods, earthquakes, hurricanes, typhoons, fires, extreme weather conditions, medical epidemics, such as the COVID-19 pandemic, and other natural or man-made disasters or business interruptions for which Tocagen is predominantly self-insured. The occurrence of any of these business disruptions could seriously harm Tocagen's operations and financial condition and increase Tocagen's costs and expenses. Tocagen's ability to obtain clinical supplies of its product candidates could be disrupted if the operations of Tocagen's contract manufacturers or cell line storage facilities are affected by a man-made or natural disaster or other business interruption.

A coronavirus pandemic is ongoing in many parts of the world and may result in significant disruptions to our clinical trials and/or supply chain which could have a material adverse effect on our business.

A coronavirus pandemic exists as of the filing of this proxy statement/prospectus/information statement. As the pandemic is still evolving as of this time, much of its impact remains unknown, and it is impossible to predict the impact it may have on the development of our business.

The coronavirus pandemic may result in significant delays or disruptions in our clinical trial plans, which could affect or delay the regulatory approval process of our product candidates. If the patients involved with these clinical trials become infected with the coronavirus disease, we may have more adverse events and deaths in our clinical trials as a result. We may also face difficulties enrolling patients in our clinical trials if the patient populations that are eligible for our clinical trials are impacted by the coronavirus pandemic.

Additionally, if our clinical trial patients are unable to travel to our clinical trial sites as a result of quarantines, social distancing measures, or other restrictions resulting from the coronavirus pandemic, we may experience higher drop-out rates or delays in our clinical trials.

The severity of the coronavirus pandemic could also make access to our existing supply chain difficult or impossible by delaying the delivery of key raw materials used in our product candidates and therefore delay the delivery of such products for use in our clinical trials. Any of these results could materially impact our business and have an adverse effect on our business.

Further, prolonged disruptions to businesses, manufacturing, and supply chain, including shelter-in-place or similar orders imposed by federal, state or local government authorities, and economic downturns can lead to materially adverse effects on our business operations, including layoffs and/or suspsension of our business operations.

Tocagen may be subject, directly or indirectly, to federal, state, local and foreign healthcare fraud and abuse laws, false claims laws, privacy laws and other applicable healthcare laws, and the failure to comply with such laws could result in substantial penalties. Tocagen's employees, independent contractors, consultants, principal investigators, CROs, commercial partners and vendors may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements.

Tocagen is exposed to the risk of fraud, misconduct or other illegal activity by Tocagen's employees, independent contractors, consultants, principal investigators, CROs, commercial partners and vendors. Misconduct by these parties could include intentional, reckless and/or negligent conduct that fails to: comply with the laws of the FDA and other similar foreign regulatory bodies; provide true, complete and accurate information to the FDA and other similar foreign regulatory bodies; comply with manufacturing standards Tocagen has established; comply with federal and state data privacy, security, fraud and abuse and other healthcare laws and regulations in the United States and similar foreign fraudulent misconduct laws; or report financial information or data accurately or to disclose unauthorized activities to Tocagen.

In addition, Tocagen's current and future operations are subject to regulation under such laws, and if Tocagen obtains FDA approval for any of Tocagen's product candidates and begins commercializing those products in the United States, Tocagen's potential exposure under such laws would increase significantly, along with Tocagen's costs associated with compliance with such laws. These laws may impact, among other things, Tocagen's current activities with principal investigators and research patients, as well as proposed and future sales, marketing and education programs. In particular, the research, promotion, sales and marketing of healthcare items and services, as well as certain business arrangements in the healthcare industry, are subject to extensive laws and regulations intended to prevent fraud, misconduct, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of activities, including pricing, discounting, marketing and promotion, including off-label promotion of Tocagen's products, structuring of commission(s), certain customer incentive programs and other business arrangements generally. Activities subject to these laws also involve the improper use or misrepresentation of information obtained in the course of patient recruitment for clinical trials, creating fraudulent data in Tocagen's preclinical studies or clinical trials or illegal misappropriation of drug product, which could result in regulatory sanctions and cause serious harm to Tocagen's reputation. The laws that may affect Tocagen's ability to operate include, but are not limited to:

- the federal Anti-Kickback Statute, which prohibits, among other things, individuals and entities from knowingly and willfully soliciting, receiving, offering or paying any remuneration (including any kickback, bribe, or rebate), directly or indirectly, overtly or covertly, in cash or in kind, to induce, or in return for, either the referral of an individual for, or the purchase, lease, order or recommendation of, any good, facility, item or service for which payment may be made, in whole or in part, under a federal healthcare program, such as the Medicare and Medicaid programs. A person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation;
- federal civil and criminal false claims laws, including the federal civil False Claims Act, which can be enforced by individuals on behalf of the government through civil whistleblower or *qui tam* actions, and civil monetary penalty laws, which impose criminal and civil penalties on individuals and entities for, among other things, knowingly presenting, or causing to be presented, claims for payment or approval from Medicare, Medicaid, or other federal healthcare programs that are false, fictitious or fraudulent, or knowingly making, using or causing to be made or used, a false statement to avoid, decrease or conceal an obligation to pay money to the federal government. In addition, the government may assert that a claim including items and services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the federal civil False Claims Act;
- the federal Health Insurance Portability and Accountability Act of 1996 ("HIPAA"), which imposes criminal and civil liability for, among other things, knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program or obtain, by means of false or fraudulent

pretenses, representations, or promises, any of the money or property owned by, or under the custody or control of, any healthcare benefit program, regardless of the payor (e.g., public or private), willfully obstructing a criminal investigation of a healthcare offense, and knowingly and willfully falsifying, concealing or covering up by any trick or device a material fact or making any materially false, fictitious or fraudulent statements in connection with the delivery of, or payment for, healthcare benefits, items or services relating to healthcare matters. Similar to the federal Anti-Kickback Statute, a person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation;

- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act ("HITECH"), and their respective implementing regulations, which impose requirements on certain covered healthcare providers, health plans, and healthcare clearinghouses, as well as their respective business associates that perform services for them that involve the creation, use, maintenance or disclosure of, individually identifiable health information, relating to the privacy, security and transmission of individually identifiable health information without appropriate authorization;
- the federal physician payment transparency requirements, sometimes referred to as the "Physician Payments Sunshine Act," created under the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, collectively the Healthcare Reform Act, and its implementing regulations, which require certain manufacturers of drugs, devices, biologics and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program (with certain exceptions) to report annually to the Centers for Medicare & Medicaid Services ("CMS"), information related to payments or other transfers of value made to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors) and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members. Beginning in 2022, applicable manufacturers also will be required to report such information regarding payments and transfers of value provided, as well as ownership and investment interests held, during the previous year to physician assistants, nurse practitioners, clinical nurse specialists, certified nurse anesthetists and certified nurse-midwives;
- the U.S. Federal Food, Drug and Cosmetic Act ("FD&C Act"), which prohibits, among other things, the adulteration or misbranding of drugs and medical devices; and
- federal consumer protection and unfair competition laws, which broadly regulate marketplace activities and activities that potentially harm consumers.

Additionally, Tocagen is subject to state, local and foreign equivalents of each of the healthcare fraud and abuse laws described above, among others, some of which may be broader in scope and may apply regardless of the payor. Tocagen may also be subject to state, local and foreign laws that require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government or otherwise restrict payments that may be made to healthcare providers; to report information related to payments and other transfers of value to healthcare providers or entities, or marketing expenditures; report certain information regarding drug pricing; and require registration of pharmaceutical sales representatives. Tocagen may also be subject to state and foreign laws governing the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts.

In the European Union, the General Data Protection Regulation (2016/679) ("GDPR"), applies to any organization established in the European Union, and in some cases to activities of organizations that are not established in the European Union. The GDPR, which is wide-ranging in scope, imposes several requirements relating to control over personal data by individuals to whom personal data relates, the information that an organization must provide to individuals, the documentation an organization must maintain, the security and confidentiality of personal data, data breach notification and the use of third party processors in connection with the processing of personal data. The GDPR also imposes strict rules on the transfer of personal data out of the

European Union to the United States, provides an enforcement authority, and authorizes fines of up to 20 million Euros or up to 4% of an organization's annual global turnover, whichever is greater, for non-compliance. Additionally, the California Consumer Privacy Act (the "CCPA") went into effect on January 1, 2020. The CCPA creates new individual privacy rights for consumers (as that word is broadly defined in the law) and places increased privacy and security obligations on many organizations that handle the personal data of consumers or households. The CCPA requires covered companies to provide new disclosures to California consumers, provides a new right for consumers to opt-out of certain sales of personal information, and provides a new cause of action for data breaches in some cases. The California Attorney General is expected to issue regulations regarding the CCPA later this year. The CCPA impacts Tocagen's business activities and exemplifies the vulnerability of Tocagen's business to not only cyber threats but also the evolving regulatory environment related to personal data and protected health information.

It is not always possible to identify and deter employee misconduct, and the precautions Tocagen takes to detect and prevent inappropriate conduct may not be effective in controlling unknown or unmanaged risks or losses or in protecting Tocagen from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations. Tocagen is also subject to the risk that a person or government could allege such fraud or other misconduct, even if none occurred. Efforts to ensure that Tocagen's business arrangements will comply with applicable healthcare laws and regulations will involve substantial costs. It is possible that governmental and enforcement authorities will conclude that Tocagen's business practices may not comply with current or future statutes, regulations or case law interpreting applicable fraud and abuse or other healthcare laws and regulations. If any such actions are instituted against Tocagen, and Tocagen is not successful in defending itself or asserting its rights, those actions could have a significant impact on Tocagen's business, including the imposition of significant civil, criminal and administrative penalties, damages, disgorgement, monetary fines, possible exclusion from participation in Medicare, Medicaid and other federal healthcare programs, contractual damages, reputational harm, diminished profits and future earnings, imprisonment, additional reporting obligations and oversight if Tocagen becomes subject to a corporate integrity agreement or other agreement to resolve allegations of non-compliance with these laws, and curtailment or restructuring of Tocagen's operations, any of which could adversely affect Tocagen's ability to operate Tocagen's business and Tocagen's results of operations. In addition, the approval and commercialization of any of Tocagen's product candidates outside the United States will also likely subject Tocagen to foreign equivalents of the healthcare laws mentioned above, among other foreign laws.

Additionally, in the United States and some foreign jurisdictions there have been, and continue to be, several legislative and regulatory changes and proposed reforms of the healthcare system in an effort to contain costs, improve quality, and expand access to care. These reform initiatives may, among other things, result in modifications to the aforementioned laws and/or the implementation of new laws affecting the healthcare industry. Similarly, a significant trend in the healthcare industry is cost containment. Third-party payors have attempted to control costs by limiting coverage and the amount of reimbursement for particular medications. Tocagen's ability to commercialize any of Tocagen's products successfully will depend in part on the extent to which coverage and adequate reimbursement for these products and will be available from third-party payors.

If Tocagen fails to comply with environmental, health and safety laws and regulations, Tocagen could become subject to fines or penalties or incur costs that could have a material adverse effect on the success of Tocagen's business.

Tocagen's research and development, manufacturing processes, clinical trials and products may involve the controlled use of hazardous materials, chemicals, viruses and various radioactive compounds. Specifically, if Tocagen's products or product candidates spread from human or companion pet patients to other people or pets, these other individuals or pets (such as the immune suppressed or the very young), might be more sensitive to the product or product candidate than the patient and may experience an adverse reaction. Tocagen is subject to federal, state and local laws and regulations governing the use, manufacture, storage, handling and disposal of such materials and certain waste products, including numerous environmental, health and safety laws and

regulations, such as those governing laboratory procedures and the handling, use, storage, treatment and disposal of hazardous materials and wastes. Tocagen's operations involve the use of hazardous and flammable materials, including chemicals and biological materials. Tocagen's operations also produce hazardous waste products. Tocagen generally contracts with third parties for the disposal of these materials and wastes. Tocagen cannot eliminate the risk of contamination or injury from these materials. In the event of contamination or injury resulting from Tocagen's use of hazardous materials, Tocagen could be held liable for any resulting damages, and any liability could exceed Tocagen's resources. Tocagen also could incur significant costs associated with civil or criminal fines and penalties.

Although Tocagen maintains workers' compensation insurance to cover Tocagen for costs and expenses Tocagen may incur due to injuries to Tocagen's employees resulting from the use of hazardous materials or other work-related injuries, this insurance may not provide adequate coverage against potential liabilities. In addition, Tocagen may incur substantial costs in order to comply with current or future environmental, health and safety laws and regulations. These current or future laws and regulations may impair Tocagen's research, development or production efforts. Failure to comply with these laws and regulations also may result in substantial fines, penalties or other sanctions.

Risks related to Tocagen's intellectual property

If Tocagen fails to comply with its obligations in the agreement under which Tocagen licenses intellectual property rights from the University of Southern California ("USC") or otherwise experiences disruptions to Tocagen's business relationships with USC or other future licensors, Tocagen could lose license rights that are important to Tocagen's business.

In October 2007, Tocagen entered into a license agreement with USC pursuant to which Tocagen received a worldwide, exclusive license to, among other things, manufacture and market products utilizing certain inventions that are critical to Tocagen's business. Tocagen may enter into additional license agreements in the future. Tocagen's existing license agreement imposes, and future license agreements may impose, various diligence, milestone payment, royalty and other obligations on Tocagen. If Tocagen fails to comply with Tocagen's obligations under the USC license agreement, including by failing to timely pay royalties as they become due, which is unlikely because there are not currently any marketed products, or to meet diligence-related milestones, or any such other license agreements, or Tocagen is subject to a bankruptcy, the licensor may have the right to terminate the license, in which event Tocagen would not be able to market products covered by the license.

Tocagen may need to obtain licenses from third parties to advance Tocagen's research or allow commercialization of Tocagen's product candidates, and Tocagen has done so from time to time. Tocagen may fail to obtain any of these licenses at a reasonable cost or on reasonable terms, if at all. In that event, Tocagen may be required to expend significant time and resources to develop or license replacement technology. If Tocagen is unable to do so, Tocagen may be unable to develop or commercialize the affected product candidates, which could harm Tocagen's business significantly. Tocagen cannot provide any assurances that third-party patents do not exist which might be enforced against Tocagen's current product candidates or future products, resulting in either an injunction prohibiting Tocagen's sales, or, with respect to Tocagen's sales, an obligation on Tocagen's part to pay royalties and/or other forms of compensation to third parties.

In certain cases, patent prosecution of Tocagen's licensed technology may be controlled solely by the licensor. If Tocagen's licensors fail to obtain and maintain patent or other protection for the proprietary intellectual property Tocagen licenses from them, Tocagen could lose Tocagen's rights to the intellectual property or Tocagen's exclusivity with respect to those rights, and Tocagen's competitors could market competing products using the intellectual property. In certain cases, Tocagen controls the prosecution of patents resulting from licensed technology. In the event Tocagen breaches any of Tocagen's obligations related to such prosecution, Tocagen may incur significant liability to Tocagen's licensing partners. Licensing of intellectual

property is of critical importance to Tocagen's business and involves complex legal, business and scientific issues and is complicated by the rapid pace of scientific discovery in Tocagen's industry. Disputes may arise regarding intellectual property subject to a licensing agreement, including:

- the scope of rights granted under the license agreement and other interpretation-related issues;
- the extent to which Tocagen's technology and processes infringe on intellectual property of the licensor that is not subject to the licensing agreement;
- the sublicensing of patent and other rights under Tocagen's collaborative development relationships;
- Tocagen's diligence obligations under the license agreement and what activities satisfy those diligence obligations;
- the ownership of inventions and know-how resulting from the joint creation or use of intellectual property by Tocagen's licensors and Tocagen and Tocagen's partners; and
- the priority of invention of patented technology.

If disputes over intellectual property that Tocagen has licensed prevent or impair Tocagen's ability to maintain Tocagen's current licensing arrangements on acceptable terms, Tocagen may be unable to successfully develop and commercialize the affected product candidates.

The license agreement with USC will be assigned as part of the sale of the RRV Platform Assets to Denovo Biopharma LLC ("Denovo"), please see the section titled "*The Merger—Background of the Merger*" beginning on page 103 of this proxy statement/prospectus/information statement.

Tocagen's reliance on third parties may require Tocagen to share Tocagen's trade secrets, which increases the possibility that a competitor will discover them or that Tocagen's trade secrets will be misappropriated or disclosed.

Tocagen seeks to protect Tocagen's proprietary technology in part by entering into confidentiality agreements and, if applicable, material transfer agreements, collaborative research agreements, consulting agreements or other similar agreements with Tocagen's manufacturers, collaborators, advisors, employees and consultants prior to beginning research or disclosing proprietary information. These agreements typically limit the rights of the third parties to use or disclose Tocagen's confidential information, such as trade secrets. Despite the contractual provisions employed when working with third parties, the need to share trade secrets and other confidential information increases the risk that such trade secrets become known by Tocagen's competitors, are inadvertently incorporated into the technology of others, are used inappropriately to create new inventions or are disclosed or used in violation of these agreements. Given that Tocagen's proprietary position is based, in part, on Tocagen's know-how and trade secrets, a competitor's discovery of Tocagen's trade secrets or other unauthorized use or disclosure would impair Tocagen's competitive position and may have a material adverse effect on Tocagen's business.

In addition, these agreements typically restrict the ability of Tocagen's collaborators, advisors, employees and consultants to publish data potentially relating to Tocagen's trade secrets. Tocagen's academic collaborators typically have rights to publish data, provided that Tocagen is notified in advance and may delay publication for a specified time in order to secure Tocagen's intellectual property rights arising from the collaboration. In other cases, publication rights are controlled exclusively by Tocagen, although in some cases Tocagen may share these rights with other parties. Tocagen also conducts joint research and development programs that may require Tocagen to share trade secrets under the terms of Tocagen's research and development partnerships or similar agreements. Despite Tocagen's efforts to protect Tocagen's trade secrets, Tocagen's competitors may discover Tocagen's trade secrets through breach of these agreements, independent development or publication of information including Tocagen's trade secrets in cases where Tocagen does not have proprietary or otherwise protected rights at the time of publication. A competitor's discovery of Tocagen's trade secrets may impair Tocagen's competitive position and have an adverse impact on Tocagen's business.

Tocagen may be subject to claims that Tocagen's employees, consultants or independent contractors have wrongfully used or disclosed confidential information of third parties or that Tocagen's employees have wrongfully used or disclosed alleged trade secrets of their former employers.

Tocagen employs individuals who were previously employed at universities or other biotechnology or pharmaceutical companies, including Tocagen's competitors or potential competitors. Although Tocagen tries to ensure that Tocagen's employees, consultants and independent contractors do not use the proprietary information or know-how of others in their work for Tocagen, Tocagen may be subject to claims that Tocagen or Tocagen's employees, consultants or independent contractors have inadvertently or otherwise used or disclosed intellectual property, including trade secrets or other proprietary information, of any of Tocagen's employee's former employer or other third parties. Litigation may be necessary to defend against these claims. If Tocagen fail in defending any such claims, in addition to paying monetary damages, Tocagen may lose valuable intellectual property rights or personnel, which could adversely impact Tocagen's business. Even if Tocagen is successful in defending against such claims, litigation could result in substantial costs and be a distraction to management and other employees.

Risks related to ownership of Tocagen's common stock

If Tocagen fails to satisfy applicable listing standards, Tocagen's common stock may be delisted from the Nasdaq Global Select Market.

On October 28, 2019, Tocagen received a letter from the Listing Qualifications Staff of Nasdaq notifying Tocagen that the closing bid price of Tocagen's common stock had been below $1.00 per share for 30 consecutive business days and that Tocagen was therefore not in compliance with the minimum bid price requirement for continued listing on The Nasdaq Global Select Market, as required by Nasdaq Listing Rule 5550(a)(2). Nasdaq stated in its October 28, 2019 letter that, in accordance with Nasdaq Listing 5810(c)(3)(A), Tocagen had a grace period of 180 calendar days, or until April 27, 2020, to regain compliance with the minimum closing bid price requirement for continued listing. Tocagen was notified on March 10, 2020 that it had regained compliance with Nasdaq Listing Rule 5450(a)(1).

There is no guarantee that Tocagen will be able to maintain compliance with the Nasdaq minimum bid price requirement, which could result in Nasdaq taking steps to delist Tocagen's common stock. Delisting from The Nasdaq Global Select Market could adversely affect Tocagen's ability to raise additional financing through the public or private sale of equity securities, would significantly affect the ability of investors to trade Tocagen's securities and would negatively affect the value and liquidity of Tocagen's common stock. Delisting could also have other negative results, including the potential loss of confidence by employees, the loss of institutional investor interest and fewer business development opportunities. If Tocagen's common stock is delisted by The Nasdaq Global Select Market, the price of Tocagen's common stock may decline, and although Tocagen's common stock may be eligible to trade on the Nasdaq Capital Market, the OTC Bulletin Board, another over-the-counter quotation system, or on the pink sheets, an investor may find it more difficult to dispose of their common stock or obtain accurate quotations as to the market value of Tocagen's common stock. Further, if Tocagen are delisted, Tocagen would incur additional costs under state blue sky laws in connection with any sales of Tocagen's securities. These requirements could severely limit the market liquidity of Tocagen's common stock and the ability of Tocagen's stockholders to sell Tocagen's common stock in the secondary market.

In addition, Tocagen is required pursuant to the terms of the Merger Agreement to submit to Tocagen's stockholders a proposal to approve an amendment to Tocagen's amended and restated certification of incorporate to authorize Tocagen's board of directors to effect a reverse stock split of all outstanding shares of Tocagen's common stock. Such a reverse stock split proposal is included in this proxy statement/prospectus/information statement as Proposal No. 1. The approval of the reverse stock split by the stockholders is a condition to closing, pursuant to the Merger Agreement. If Tocagen does not maintain compliance with the Nasdaq minimum bid price prior to the Merger and this reverse stock split proposal is not approved by Tocagen's stockholders and the parties waive this closing condition the combined company resulting from the Merger will likely not be able to

obtain compliance with the minimum bid price requirement for an initial listing on The Nasdaq Capital Market and, as a consequence, Nasdaq will immediately provide the combined company with written notification that Tocagen's common stock will be delisted.

If Tocagen's common stock is delisted, Tocagen would expect Tocagen's common stock to be traded in the over-the-counter market, which could adversely affect the liquidity of Tocagen's common stock. Additionally, Tocagen could face significant material adverse consequences, including:

- a limited availability of market quotations for Tocagen's common stock;
- a reduced amount of news and analyst coverage for Tocagen;
- a decreased ability to issue additional securities and a concomitant substantial impairment in Tocagen's ability to obtain sufficient additional capital to fund Tocagen's operations and to continue as a going concern;
- reduced liquidity for Tocagen's stockholders;
- potential loss of confidence by employees and potential future partners or collaborators; and
- loss of institutional investor interest and fewer business development opportunities.

The market price of Tocagen's common stock has been volatile and may continue to be volatile in the future. This volatility may cause Tocagen's stock price and the value of its stockholders' investment to decline.

The market prices for securities of biotechnology companies, including Tocagen's, have been highly volatile and may continue to be so in the future. In this regard, the market price for Tocagen's common stock has varied between a high of $12.00 on March 5, 2019, and a low of $0.42 on December 18, 2019, in the twelve-month period ended December 31, 2019. The market price of Tocagen's common stock is likely to continue to be volatile and subject to significant price and volume fluctuations. In addition, companies trading in the stock market in general, and the Nasdaq Global Select Market in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of these companies. Broad market and industry factors may negatively affect the market price of Tocagen's common stock, regardless of Tocagen's actual operating performance.

In the past, class action litigation has often been instituted against companies whose securities have experienced periods of volatility in market price. Any such litigation brought against Tocagen could result in substantial costs, which would hurt Tocagen's financial condition and results of operations.

Unstable market and economic conditions may have serious adverse consequences on Tocagen's business, financial condition and stock price.

From time to time, including recently as a result of the COVID-19 pandemic, global credit and financial markets have experienced extreme volatility and disruptions, including severely diminished liquidity and credit availability, declines in consumer confidence, declines in economic growth, increases in unemployment rates and uncertainty about economic stability. Tocagen's general business strategy may be adversely affected by any such economic downturn, volatile business environment and continued unpredictable and unstable market conditions. If the equity and credit markets deteriorate it may make any necessary debt or equity financing more difficult to complete, more costly, and more dilutive. Failure to secure any necessary financing in a timely manner and on favorable terms could have a material adverse effect on Tocagen's growth strategy, financial performance and stock price and could require Tocagen to delay or abandon clinical development plans. In addition, there is a risk that one or more of Tocagen's current service providers, manufacturers and other partners may not survive an economic down-turn, which could directly affect Tocagen's ability to attain Tocagen's operating goals on schedule and on budget.

Tocagen does not intend to pay dividends on Tocagen's common stock so any returns will be limited to the value of Tocagen's stock.

Tocagen has never declared or paid any cash dividends on Tocagen's common stock. Tocagen currently anticipates that it will retain future earnings for the operation of its business and does not anticipate declaring or paying any cash dividends for the foreseeable future. Any return to stockholders will therefore be limited to the appreciation of their stock.

Tocagen is an emerging growth company, and Tocagen cannot be certain if the reduced reporting requirements applicable to emerging growth companies will make Tocagen's common stock less attractive to investors.

Tocagen is an emerging growth company, as defined in the Jumpstart its Business Startups Act ("JOBS Act"). For as long as Tocagen continues to be an emerging growth company, Tocagen may take advantage of exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies, including not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002, as amended (the "Sarbanes-Oxley Act"), reduced disclosure obligations regarding executive compensation in Tocagen's periodic reports and proxy statements and exemptions from the requirements of holding nonbinding advisory votes on executive compensation and stockholder approval of any golden parachute payments not previously approved. Tocagen could be an emerging growth company for up to five years following the year in which Tocagen completed its initial public offering, although circumstances could cause Tocagen to lose that status earlier. Tocagen will remain an emerging growth company until the earlier of (1) the last day of the fiscal year (a) following the fifth anniversary of the completion of Tocagen's initial public offering (i.e. December 31, 2022), (b) in which Tocagen has total annual gross revenue of at least $1.07 billion or (c) in which Tocagen is deemed to be a large accelerated filer, which requires the market value of Tocagen's common stock that is held by non-affiliates to exceed $700 million as of the prior June 30th, and (2) the date on which Tocagen has issued more than $1.0 billion in non-convertible debt during the prior three-year period.

Even after Tocagen no longer qualifies as an emerging growth company, Tocagen may still qualify as a "smaller reporting company" which would allow Tocagen to take advantage of many of the same exemptions from disclosure requirements including not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act and reduced disclosure obligations regarding executive compensation in Tocagen's periodic reports and proxy statements. Tocagen cannot predict if investors will find Tocagen's common stock less attractive because Tocagen may rely on these exemptions. If some investors find Tocagen's common stock less attractive as a result, there may be a less active trading market for Tocagen's common stock and Tocagen's stock price may be more volatile.

Under the JOBS Act, emerging growth companies can also delay adopting new or revised accounting standards until such time as those standards apply to private companies. Tocagen has irrevocably elected not to avail itself of this exemption from new or revised accounting standards and, therefore, will be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies. As a result, changes in rules of U.S. generally accepted accounting principles or their interpretation, the adoption of new guidance or the application of existing guidance to changes in Tocagen's business could significantly affect Tocagen's financial position and results of operations.

Sales of a substantial number of shares of Tocagen's common stock in the public market could cause Tocagen's stock price to fall.

If Tocagen's existing stockholders sell, or indicate an intention to sell, substantial amounts of Tocagen's common stock in the public market, the market price of Tocagen's common stock could decline. Tocagen had 23,908,937 shares of common stock outstanding as of March 6, 2020. Tocagen is unable to predict the effect that sales may have on the prevailing market price of Tocagen's common stock.

Sales of Tocagen's common stock by current stockholders may make it more difficult for Tocagen to sell equity or equity-related securities in the future at a time and price that Tocagen deems reasonable or appropriate, and make it more difficult for other stockholders to sell shares of Tocagen's common stock. In addition, as of December 31, 2019, 4,944,733 shares of common stock that are either subject to outstanding options, reserved for future issuance under Tocagen's equity incentive plans or subject to outstanding warrants will become eligible for sale in the public market to the extent permitted by the provisions of various vesting schedules and Rule 144 and Rule 701 under the Securities Act of 1933, as amended (the "Securities Act"). If these additional shares of common stock are sold, or if it is perceived that they will be sold, in the public market, the market price of Tocagen's common stock could decline.

Tocagen has broad discretion in the use of working capital and may not use it effectively.

Tocagen's management will have broad discretion in the application of working capital, and stockholders do not have the opportunity to assess whether working capital is being used appropriately. Because of the number and variability of factors that will determine Tocagen's use of its working capital, its ultimate use may vary substantially from its currently intended use. Management might not apply working capital in ways that ultimately increase stockholder value. Failure by Tocagen to apply working capital effectively could harm Tocagen's business. Pending its use, Tocagen may invest Tocagen's working capital in short-term, investment-grade, interest-bearing securities. These investments may not yield a favorable return to Tocagen's stockholders. If Tocagen does not invest or apply Tocagen's working capital in ways that enhance stockholder value, Tocagen may fail to achieve expected financial results, which could cause Tocagen's stock price to decline.

Changes in tax laws or regulations that are applied adversely to Tocagen or Tocagen's customers may have a material adverse effect on Tocagen's business, cash flow, financial condition or results of operations.

New income, sales, use or other tax laws, statutes, rules, regulations or ordinances could be enacted at any time, which could affect the tax treatment of Tocagen's domestic and foreign earnings. Any new taxes could adversely affect Tocagen's domestic and international business operations, and Tocagen's business and financial performance. Further, existing tax laws, statutes, rules, regulations or ordinances could be interpreted, changed, modified or applied adversely to Tocagen. For example, legislation enacted in 2017, informally titled the Tax Cuts and Jobs Act ("Tax Act") made many significant changes to the tax laws, including the Code. Future guidance from the Internal Revenue Service (the "IRS") and other tax authorities with respect to the Tax Act may affect Tocagen, and certain aspects of the Tax Act could be repealed or modified in future legislation. In addition, it is uncertain if and to what extent various states will conform to the Tax Act or any newly enacted federal tax legislation. Changes in corporate tax rates, the realization of net deferred tax assets relating to Tocagen's operations, the taxation of foreign earnings, and the deductibility of expenses under the Tax Act or future reform legislation could have a material impact on the value of Tocagen's deferred tax assets, could result in significant one-time charges, and could increase Tocagen's future U.S. tax expense.

Tocagen's ability to use Tocagen's NOL carryforwards and certain other tax attributes may be limited.

As of December 31, 2019, Tocagen had federal NOL carryforwards of $231.0 million, of which $136.6 million begin to expire in 2028 unless previously utilized and $94.4 million that do not expire. As of December 31, 2019, Tocagen had state NOL carryforwards of $76.0 million that begin to expire in 2028, unless previously utilized. If these NOL carryforwards expire unused, they will be unavailable to offset future income and reduce future income tax liabilities. In addition, under the Tax Act as modified by the Coronavirus Aid, Relief, and Economic Security Act (the "CARES Act") signed into law on March 27, 2020, federal NOLs incurred in taxable years beginning after December 31, 2017 may be carried forward indefinitely, but the deductibility of such federal NOL carryforwards in tax years beginning after December 31, 2020 is limited to 80% of taxable income. It is uncertain if and to what extent various states will conform to the Tax Act or the CARES Act. Under Sections 382 and 383 of the Code, if a corporation undergoes an "ownership change," generally defined as a cumulative change in its equity ownership by "5-percent shareholders" of greater than 50

percentage points (by value) over a three-year period, the corporation's ability to use its pre-change NOL carryforwards and certain other pre-change tax attributes (such as research tax credits) to offset its post-change taxable income and taxes, as applicable, may be limited. Tocagen has completed public offerings and multiple other rounds of financing since Tocagen's inception which may have resulted in an ownership change or could result in one or more ownership changes in the future. As of December 31, 2019, Tocagen has not completed a Section 382 and 383 analysis regarding any limitations on Tocagen's NOL carryforwards and research and development credit carryforwards and such limitations could be significant. Tocagen may also experience ownership changes in the future as a result of subsequent shifts in Tocagen's stock ownership. As a result, Tocagen's ability to use Tocagen's NOL carryforwards and research and development credit carryforwards to offset Tocagen's U.S. federal taxable income and taxes, as applicable, may be subject to limitations, which could potentially result in increased future tax liability to Tocagen. In addition, at the state level, similar rules may apply and there may be periods during which the use of NOL carryforwards is suspended or otherwise limited, which could accelerate or permanently increase state taxes owed.

Provisions in Tocagen's amended and restated certificate of incorporation and amended and restated bylaws, as well as provisions of Delaware law, could make it more difficult for a third party to acquire Tocagen or increase the cost of acquiring Tocagen, even if doing so would benefit Tocagen's stockholders or remove Tocagen's current management.

Tocagen's amended and restated certificate of incorporation, amended and restated bylaws and Delaware law contain provisions that may have the effect of delaying or preventing a change in control of Tocagen or changes in Tocagen's management. Tocagen's amended and restated certificate of incorporation and amended and restated bylaws, include provisions that:

- permit Tocagen's board of directors to issue up to 10,000,000 shares of preferred stock, with any rights, preferences and privileges as they may designate (including the right to approve an acquisition or other change in Tocagen's control);
- provide that the authorized number of directors may be changed only by resolution of the board of directors;
- provide that the board of directors or any individual director may only be removed with cause and the affirmative vote of the holders of at least 66-2/3% of the voting power of all of Tocagen's then outstanding common stock;
- provide that all vacancies, including newly created directorships, may, except as otherwise required by law, be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum;
- divide Tocagen's board of directors into three classes;
- require that any action to be taken by Tocagen's stockholders must be effected at a duly called annual or special meeting of stockholders and not be taken by written consent;
- provide that stockholders seeking to present proposals before a meeting of stockholders or to nominate candidates for election as directors at a meeting of stockholders must provide notice in writing in a timely manner and also specify requirements as to the form and content of a stockholder's notice;
- do not provide for cumulative voting rights (therefore allowing the holders of a majority of the shares of common stock entitled to vote in any election of directors to elect all of the directors standing for election, if they should so choose);
- provide that special meetings of Tocagen's stockholders may be called only by the chairman of the board, Tocagen's Chief Executive Officer or by the board of directors pursuant to a resolution adopted by a majority of the total number of authorized directors; and
- provide that the Court of Chancery of the State of Delaware will be the sole and exclusive forum for (i) any derivative action or proceeding brought on Tocagen's behalf, (ii) any action asserting a claim of

breach of a fiduciary duty owed by any of Tocagen's directors or officers to Tocagen or Tocagen's stockholders, (iii) any action asserting a claim against Tocagen arising pursuant to any provision of the DGCL or Tocagen's certificate of incorporation or bylaws, or (iv) any action asserting a claim against Tocagen governed by the internal affairs doctrine (these choice of forum provisions do not apply to suits brought to enforce a duty or liability created by the Securities Act, the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or any other claim for which the federal courts have exclusive jurisdiction).

These provisions, alone or together, could delay or prevent hostile takeovers and changes in control or changes in Tocagen's management.

In addition, because Tocagen is incorporated in Delaware, Tocagen is governed by the provisions of Section 203 of the DGCL, which limits the ability of stockholders owning in excess of 15% of Tocagen's outstanding voting stock to merge or combine with Tocagen.

Any provision of Tocagen's amended and restated certificate of incorporation or amended and restated bylaws or Delaware law that has the effect of delaying or deterring a change in control could limit the opportunity for Tocagen's stockholders to receive a premium for their shares of Tocagen's common stock and could also affect the price that some investors are willing to pay for Tocagen's common stock.

Tocagen's amended and restated certificate of incorporation and amended and restated bylaws provide that the Court of Chancery of the State of Delaware is the sole and exclusive forum for substantially all disputes between Tocagen and Tocagen's stockholders, which could limit Tocagen's stockholders' ability to obtain a favorable judicial forum for disputes with Tocagen or Tocagen's directors, officers or employees.

Tocagen's amended and restated certificate of incorporation and amended and restated bylaws provide that the Court of Chancery of the State of Delaware is the sole and exclusive forum for (i) any derivative action or proceeding brought on Tocagen's behalf; (ii) any action asserting a breach of fiduciary duty owed by any of Tocagen's directors, officers or other employees to Tocagen or Tocagen's stockholders; (iii) any action asserting a claim against Tocagen or any of Tocagen's directors, officers or other employees arising pursuant to the DGCL, Tocagen's amended and restated certificate of incorporation or Tocagen's amended and restated bylaws; or (iv) any action asserting a claim against Tocagen or any of Tocagen's directors, officers or other employees that is governed by the internal affairs doctrine; *provided*, that these choice of forum provisions do not apply to suits brought to enforce a duty or liability created by the Securities Act, the Exchange Act, or any other claim for which the federal courts have exclusive jurisdiction. The choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with Tocagen or Tocagen's directors, officers or other employees, which may discourage such lawsuits against Tocagen and Tocagen's directors, officers and other employees. Alternatively, if a court were to find the choice of forum provision contained in Tocagen's amended and restated certificate of incorporation and amended and restated bylaws to be inapplicable or unenforceable in an action, Tocagen may incur additional costs associated with resolving such action in other jurisdictions, which could adversely affect Tocagen's business and financial condition.

Risks Related to Forte

Risks related to Forte's business, technology and industry

Forte has incurred net losses in every year since its inception and anticipates that it will continue to incur net losses in the future.

Forte is a clinical stage healthcare company with a limited operating history. Investment in product development in the healthcare industry, including of biopharmaceutical products, is highly speculative because it entails substantial upfront capital expenditures and significant risk that any potential product candidate will fail to demonstrate adequate effect or an acceptable safety profile, gain regulatory approval and become

commercially viable. Forte's lead product candidate, FB-401, is currently in clinical development. Forte has no products approved for commercial sale and have not generated any revenue from product sales to date, and Forte continues to incur significant research and development and other expenses related to its ongoing operations. As a result, Forte is not profitable and has incurred losses in each period since its inception in 2017. For the years ended December 31, 2018 and 2019, Forte reported net losses of $0.9 million and $4.1 million, respectively. As of December 31, 2019, Forte had an accumulated deficit of $5.0 million. Forte expects to continue to incur significant losses for the foreseeable future, and Forte expects these losses to increase as Forte continues its research and development of, and seeks regulatory approvals for, its product candidate, FB-401. Forte anticipates that its expenses will increase substantially if, and as, it:

- conducts clinical trials for its product candidate, FB-401;
- Continues to discover and develop additional applications for FB-401;
- maintain, expand and protect its intellectual property portfolio;
- hires or contracts additional clinical, scientific, manufacturing and commercial personnel to support its product development and commercialization efforts;
- validates a manufacturing process and specifications for FB-401;
- establishes in-house manufacturing capabilities;
- establishes a commercial manufacturing source and secure supply chain capacity sufficient to provide clinical trial material and commercial quantities of any product candidate for which Forte may obtain regulatory approval;
- acquires or in-licenses other product candidate and technologies;
- seeks various regulatory approvals;
- establishes a sales, marketing and distribution infrastructure to commercialize any product candidate for which Forte may obtain regulatory approval; and
- adds operational, compliance, financial and management information systems and personnel to support being a public company after the Merger.

To become and remain profitable, Forte or any potential future collaborator must develop and eventually commercialize products with significant market potential at an adequate profit margin after cost of goods sold and other expenses. This will require Forte to be successful in a range of challenging activities, including completing clinical trials, obtaining marketing approval for FB-401, manufacturing, marketing and selling products for which Forte may obtain marketing approval and satisfying any post-marketing requirements. Forte may never succeed in any or all of these activities and, even if Forte does, Forte may never generate revenue that is significant enough to achieve profitability. If Forte does achieve profitability, it may not be able to sustain or increase profitability on a quarterly or annual basis. Forte's failure to become and remain profitable would decrease the value of its company and could impair its ability to raise capital, maintain its research and development efforts, expand its business or continue its operations.

Even if Forte succeeds in obtaining regulatory approval and commercializing its current product candidate, FB-401, Forte may continue to incur substantial research and development and other expenditures to develop and market additional applications for its current product candidate or any future product candidates. Forte may encounter unforeseen expenses, difficulties, complications, delays and other unknown factors that may adversely affect its business. The size of its future net losses will depend, in part, on the rate of future growth of its expenses and its ability to generate revenue. Forte's prior losses and expected future losses have had and will continue to have an adverse effect on its stockholders' equity and working capital.

Forte will require additional capital to fund its operations and if Forte fails to obtain necessary financing, Forte will not be able to complete the development and commercialization of its product candidate, FB-401.

Forte's operations have consumed substantial amounts of cash since inception. Forte expects to continue to spend substantial amounts to conduct clinical trials of its current and future programs, to validate the manufacturing process and specifications for its product candidate, to seek regulatory approvals for its product candidate and to launch and commercialize any products for which Forte receive regulatory approval, including potentially building its own commercial organization. As of December 31, 2019, Forte had $6.9 million of cash on hand. Based on its current operating plan, Forte believes that the cash available after the Merger will enable the combined company to fund its operating expenses, capital expenditure requirements through at least June 2021. However, its future capital requirements and the period for which its existing resources will support its operations may vary significantly from what Forte currently expects, and Forte will in any event require additional capital in order to complete clinical development of FB-401. Forte's monthly spending levels will vary based on new and ongoing development and corporate activities. Because the length of time and activities associated with development of FB-401 is highly uncertain, Forte is unable to estimate the actual funds it will require for development and any approved marketing and commercialization activities. Forte's future funding requirements, both near and long-term, will depend on many factors, including, but not limited to:

- the initiation, progress, timing, costs and results of clinical trials for FB-401 and any need to conduct additional such studies as may be required by a regulator;
- the clinical development plans Forte establishes for FB-401;
- the terms of any collaboration agreements Forte may choose to initiate or conclude;
- the outcome, timing and cost of meeting regulatory requirements established by the U.S. Food and Drug Administration ("FDA"), and other comparable foreign regulatory authorities;
- delay or failure in obtaining the necessary approvals from regulators or institutional review boards, or IRBs, in order to commence a clinical trial at a prospective trial site, or their suspension or termination of a clinical trial once commenced;
- failure of third-party contractors, such as CROs, or investigators to comply with regulatory requirements, including GCPs;
- governmental or regulatory delays and changes in regulation or policy relating to the development and commercialization of its product candidate by the FDA or other comparable foreign regulatory authorities;
- undertaking and completing additional pre-clinical studies to generate data required to support the continued clinical development of a product candidate;
- inability to enroll sufficient patients to complete a protocol;
- difficulty in having patients complete a trial or return for post-treatment follow-up;
- clinical sites deviating from trial protocol or dropping out of a trial;
- problems with biopharmaceutical product candidate storage, stability and distribution;
- its inability to add new or additional clinical trial sites;
- varying interpretations of the data generated from its preclinical or clinical trials;
- Forte's inability to manufacture, or obtain from third parties, adequate supply of biopharmaceutical product candidate sufficient to complete its preclinical studies and clinical trials;
- the costs of establishing, maintaining, and overseeing a quality system compliant with current good manufacturing practice requirements ("cGMPs") and a supply chain for the development and manufacture of its product candidate;

- the cost of defending intellectual property disputes, including patent infringement actions brought by third parties against Forte or FB-401;
- the effect of competing technological and market developments;
- the cost and timing of establishing, expanding and scaling manufacturing capabilities;
- the cost of establishing sales, marketing and distribution capabilities for any product candidate for which Forte may receive regulatory approval in regions where Forte chooses to commercialize its products on its own; and
- potential unforeseen business disruptions or market fluctuations that delay its product development or clinical trials and increase its costs or expenses, such as business or operational disruptions, delays, or system failures due to malware, unauthorized access, terrorism, war, natural disasters, strikes, geopolitical conflicts, restrictions on trade, import or export restrictions, or public health crises, such as the current COVID-19 outbreak.

Forte does not have any committed external source of funds or other support for its development efforts, and Forte cannot be certain that additional funding will be available on acceptable terms, or at all. Until Forte can generate sufficient product or royalty revenue to finance its cash requirements, which Forte may never do, Forte expects to finance its future cash needs through a combination of public or private equity offerings, debt financings, collaborations, strategic alliances, licensing arrangements and other marketing or distribution arrangements. If Forte raises additional funds through public or private equity offerings, the terms of these securities may include liquidation or other preferences that adversely affect its stockholders' rights. Further, to the extent that Forte raises additional capital through the sale of common stock or securities convertible into or exchangeable for common stock, Forte's ownership interest will be diluted. If Forte raises additional capital through debt financing, Forte would be subject to fixed payment obligations and may be subject to covenants limiting or restricting its ability to take specific actions, such as incurring additional debt, making capital expenditures, declaring dividends or acquiring or licensing intellectual property rights. If Forte raises additional capital through marketing and distribution arrangements or other collaborations, strategic alliances or licensing arrangements with third parties, Forte may have to relinquish certain valuable rights to its product candidate, technologies, future revenue streams or research programs or grant licenses on terms that may not be favorable to it. Forte also could be required to seek collaborators for one or more of its current or future product candidate at an earlier stage than otherwise would be desirable or relinquish its rights to product candidate or technologies that Forte otherwise would seek to develop or commercialize itself. If Forte is unable to raise additional capital in sufficient amounts or on terms acceptable to it, Forte may have to significantly delay, scale back or discontinue the development or commercialization of its current product candidate, FB-401, or one or more of its other research and development initiatives. Any of the above events could significantly harm its business, prospects, financial condition and results of operations and cause the price of its common stock to decline.

Forte has a limited operating history, which may make it difficult to evaluate its technology and product development capabilities and predict its future performance.

Forte is early in its development efforts. Forte was formed in 2017, has no products approved for commercial sale and has not generated any revenue from product sales. Forte's ability to generate product revenue or profits, which Forte does not expect will occur for many years, if ever, will depend on the successful development and eventual commercialization of FB-401, which may never occur. Forte may never be able to develop or commercialize a marketable product.

Forte's current and future programs and product candidates will require additional discovery research, preclinical development, clinical development, regulatory approval to commercialize the product, manufacturing validation, obtaining manufacturing supply, capacity and expertise, building of a commercial and distribution organization, substantial investment and significant marketing efforts before Forte generates any revenue from product sales. In addition, its drug product candidate must be approved for marketing by the FDA or certain other health regulatory agencies before Forte may commercialize any product in the respective jurisdictions.

Forte's limited operating history may make it difficult to evaluate its technology and industry and predict its future performance. Forte's short history as an operating company makes any assessment of its future success or viability subject to significant uncertainty. Forte will encounter risks and difficulties frequently experienced by early-stage companies in evolving fields. If Forte does not address these risks successfully, its business will suffer. Similarly, Forte expects that its financial condition and operating results will fluctuate significantly from quarter to quarter and year to year due to a variety of factors, many of which are beyond its control. As a result, its stockholders should not rely upon the results of any quarterly or annual period as an indicator of future operating performance.

In addition, as an early-stage company, Forte may encounter unforeseen expenses, difficulties, complications, delays and other known and unknown circumstances. As Forte advances FB-401, Forte will need to transition from a company with a research focus to a company capable of supporting clinical development and if successful, commercial activities. Forte may not be successful in such a transition.

If Forte fails to comply with its obligations under the license agreement with the U.S. Department of Health and Human Services, as represented by the National Institute of Allergy and Infectious Diseases ("DHHS") or otherwise experience disruptions to its business relationship with DHHS, Forte could lose license rights that are important to its business.

Forte's DHHS license agreement imposes various diligence, milestone payment, royalty and other obligations on Forte. If Forte fails to comply with its obligations under these agreements, or Forte is subject to a bankruptcy, the licensor may have the right to terminate the license, in which event Forte would not be able to market products covered by the license.

Forte's near-term prospects are highly dependent on future revenues from a single product candidate, FB-401, and Forte may be unable to achieve regulatory approval for FB-401 and its commercialization.

Forte's long-term prospects are highly dependent on future acceptance and revenues from a single product, FB-401, and Forte has no other product candidates or products in active development at this time. Forte's success depends on its ability to eventually commercialize FB-401. Acceptance of its product in the marketplace by health care providers is uncertain, and its failure to achieve sufficient market acceptance will significantly limit its ability to generate revenue and be profitable. Market acceptance will require substantial marketing efforts and the expenditure of significant funds by it to inform health care providers of the benefits of using FB-401 and to provide further training on its use. Forte may not be able to build key relationships with health care providers to increase sales in the United States or sell FB-401 outside the United States. Product orders may be cancelled, patients or customers currently using its products may cease to do so and patients or customers expected to begin using its products may not. In addition, market acceptance of FB-401 may require that Forte make enhancements to it. Forte cannot be sure that it will be able to successfully develop such enhancements, or that if developed they will be viewed favorable by the market. Forte's ability to achieve acceptance of FB-401 depends on its ability to demonstrate the safety, efficacy, ease-of-use and cost-effectiveness.

Topical live biotherapeutic is a novel approach and negative perception of any product candidate that Forte develops could adversely affect its ability to conduct its business or obtain regulatory approvals for FB-401.

Microbiome therapies and therapy candidates in general are a relatively new and novel approach. In the United States and the European Union, no products to date have been approved specifically demonstrating an impact on the microbiome as part of their therapeutic effect. Microbiome therapies in general may not be successfully developed or commercialized or gain the acceptance of the public or the medical community. Forte's success will depend upon physicians who specialize in the treatment of diseases targeted by its product candidate that Forte pursue as drugs, prescribing potential treatments that involve the use of its product candidate in lieu of, or in addition to, existing treatments with which they are more familiar and for which greater clinical data may be available. Forte's access will also depend on consumer acceptance and adoption of its products that

Forte commercialize. Adverse events in clinical trials of its product candidate or in clinical trials of others developing similar products and the resulting publicity, as well as any other adverse events in the field of the microbiome, could result in delay in regulatory approval for its product candidate or a decrease in demand for any product that Forte may develop. In addition, responses by the U.S., state or foreign governments to negative public perception or ethical concerns may result in new legislation or regulations that could limit its ability to develop or commercialize any product candidate, obtain or maintain regulatory approval or otherwise achieve profitability. More restrictive statutory regimes, government regulations or negative public opinion would have an adverse effect on Forte's business, financial condition, results of operations and prospects and may delay or impair the development and commercialization of FB-401 or demand for any products Forte may develop.

Forte's initial product candidate targeting atopic dermatitis ("AD") in adults will require significant additional clinical development before it can seek regulatory approval for and launch a therapeutic product commercially.

Forte's business and future success depends on its ability to submit a BLA and obtain regulatory approval of and then successfully launch and commercialize FB-401. Forte is the sponsor of an active Investigational New Drug Application ("IND") for its initial product candidate, which allows it to commence a Phase 2 clinical trial.

Additionally, its planned Phase 2 clinical trial is intended to allow it to evaluate the efficacy and safety of FB-401 in reducing AD in adults and pediatrics. It may be challenging to ensure that pediatric or adolescent patients adhere to clinical trial protocols. Forte's inability to enroll a sufficient number of pediatric patients in a clinical trial could result in significant delays, could require it to abandon one or more clinical trials altogether, could impact its ability to raise additional capital and could delay or prevent its ability to obtain regulatory approvals for FB-401 in pediatric patients. In addition, if Forte is unable to obtain regulatory approval for FB-401 for an indication in pediatric patients, the commercial prospects or viability could be materially harmed, even if Forte obtains regulatory approval for an indication in adult patients.

FB-401 is in the early stages of development and will require significant additional clinical development, regulatory review and approval in multiple jurisdictions, substantial investment, access to sufficient validated and cGMP-compliant commercial manufacturing capacity and significant marketing efforts before Forte can generate any revenue from product sales. In addition, because FB-401 is its most advanced product candidate, if FB-401 encounters safety, efficacy, supply or manufacturing problems, developmental delays, regulatory or commercialization issues or other problems, its development plans, including for other product candidate, and business would be significantly harmed.

The successful development of its product candidate is highly uncertain.

Successful development of product candidate is highly uncertain and is dependent on numerous factors, many of which are beyond its control. Product candidates that appear promising in the early phases of development may fail to reach the market for several reasons, including:

- clinical study results may show its product candidate to be less effective than desired or to have harmful or problematic side effects or toxicities;
- clinical trial results may show its product candidate to be less effective than expected (e.g., a clinical trial could fail to meet its primary endpoint(s)) or to have unacceptable side effects or toxicities;
- failure to execute the clinical trials caused by slow enrollment in clinical trials, patients dropping out of clinical trials, length of time to achieve clinical trial endpoints, additional time requirements for data analysis, inability to validate the manufacturing process or to achieve cGMP compliance for its product candidate or inability to identify a suitable bioanalytical assay method agreeable to its regulators;
- failure to receive the necessary regulatory approvals or a delay in receiving such approvals for, including but not limited to, a Biologics License Application ("BLA"), delays in BLA preparation responding to an FDA request for additional clinical data or unexpected safety or manufacturing issues;

- manufacturing costs, formulation issues, manufacturing deficiencies or other factors that make FB-401 uneconomical; and
- proprietary rights of others and their competing products and technologies that may prevent FB-401 from being commercialized.

The length of time necessary to complete clinical trials and to submit an application for marketing approval of a drug product candidate for a final decision by a regulatory authority may be difficult to predict for FB-401, in large part because of its limited regulatory history.

The full impact of the COVID-19 pandemic on Forte's clincal trial plans, product development, and how the FDA reviews study data that has been significantly impacted by the pandemic is difficult to predict, but may have a material adverse impact on Forte's business operations, clinical trial plans, and product development, including delays in IRB approval, delays in clinical trial and study participant recruitment, delay in FDA approval of our product candidates, and additional costs and resources. The pandemic's impact on the economy and drug product manufacturing and supply chain may also adversely affect Forte's clinical trial plans and drug development. Additionally, depending on the duration of shelter-in-place, social distancing, and similar measures, as well as business closures and stresses on our healthcare systems and clinical trial sites, Forte's ability to recruit participants for its clinical trials may be significantly impacted. Forte may not be able to commence or complete its clinical trials as currently planned. Forte may be required to significantly modify its study protocol, policies and procedures in order to address or accommodate patients and study site needs during the pandemic.Such changes can include modification to protcol inclusion and exclusion criteria, extending the time for patient follow up visits, using telemedicine, phone interviews and other technology to monitor patient safety, all of which will need to be approved by study site IRBs. Forte will also need to timely document how the pandemic impacted study and study patients, and submit that information to the FDA for evaluation. Forte cannot provide any assurance that the pandemic will not significantly impact how the FDA reviews any protocol deviations that occur during the pandemic, or that FDA will not require it to repeat a clinical study.

Even if Forte is successful in obtaining market approval for a drug product, commercial success of any approved products will also depend in large part on marketing acceptance, the availability of insurance coverage and adequate reimbursement from third-party payors, including government payors, such as the Medicare and Medicaid programs, and managed care organizations, which may be affected by existing and future healthcare reform measures designed to reduce the cost of healthcare. Third-party payors could require Forte to conduct additional studies, including post-marketing studies related to the cost-effectiveness of the product, to qualify for reimbursement, which could be costly and divert its resources. If government and other healthcare payors were not to provide adequate insurance coverage and reimbursement levels for any of its drug products once approved, market acceptance and commercial success would be reduced.

In addition, if any of Forte's drug product candidates, including FB-401, are approved for marketing, Forte will be subject to significant regulatory obligations regarding the submission of safety and other post-marketing information and reports and registration. If approved, any of its drug products would be subject to restrictions on its products' labels and other conditions of regulatory approval that may limit its ability to market its products. Forte will also need to comply (and ensure that its third-party contractors comply) with cGMPs, and Good Clinical Practice ("GCP"), as Forte (and its third-party contractors) will be required to comply with these requirements for the products or product candidates used in its clinical trials or post-approval studies. In addition, Forte will need to comply with GCPs for any clinical trial conducted for any therapeutic indications Forte may develop for approval, including any additional therapeutic indications Forte develop after approval of its first drug candidate for treatment in AD. In addition, there is always the risk that Forte or a regulatory authority might identify previously unknown problems with a drug product post-approval, such as adverse events of unanticipated severity or frequency. Compliance with these requirements and other regulatory requirements is costly and any failure to comply or other issues with its product post-approval could have a material adverse effect on its business, financial condition and results of operations.

Clinical development is a lengthy and expensive process, with an uncertain outcome. Forte may incur additional costs or experience delays in completing, or ultimately be unable to complete, the development and commercialization of any product candidate.

To obtain the requisite regulatory approvals to commercialize any product candidate, Forte must demonstrate through extensive clinical trials that its product candidate is safe and effective in humans for its intended use. Clinical testing is expensive, difficult to design and implement and can take many years to complete, and its outcome is inherently uncertain. Forte may be unable to establish clinical endpoints, dose levels and regimens or bioanalytical assay methods that applicable regulatory authorities would consider clinically meaningful, and a clinical trial can fail at any stage of testing. The outcome of preclinical studies and early clinical trials may not be predictive of the success of later clinical trials, and interim results of these studies or trials do not necessarily predict final results. Differences in trial design between early-stage clinical trials and later-stage clinical trials make it difficult to extrapolate the results of earlier clinical trials to later clinical trials. Moreover, preclinical and clinical data are often susceptible to varying interpretations and analyses, and many companies that have believed their product candidate performed satisfactorily in preclinical studies and clinical trials have nonetheless failed to obtain marketing approval of their product candidate.

Successful completion of clinical trials is a prerequisite to submitting a BLA to the FDA, and similar marketing applications to comparable foreign regulatory authorities, for each product candidate, and, consequently, the ultimate approval and commercial marketing of any product candidate. Forte does not know whether any of its clinical trials will begin or be completed on schedule, if at all.

Forte may experience delays in completing its clinical trials. Forte also may experience numerous unforeseen events during, or as a result of, any future clinical trials that Forte could conduct that could delay or prevent its ability to receive marketing approval or commercialize its product candidate, including:

- regulators or institutional review boards ("IRBs"), or ethics committees may not authorize Forte or its investigators to commence a clinical trial or conduct a clinical trial at a prospective trial site;
- Forte may experience delays in reaching, or fail to reach, agreement on acceptable terms with prospective trial sites and prospective contract research organizations ("CROs"), the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;
- clinical trials of any product candidate may fail to show safety, purity or potency, or produce negative or inconclusive results and Forte may decide, or regulators may require it, to conduct additional preclinical studies or clinical trials or Forte may decide to abandon product development programs;
- the number of patients required for clinical trials of any product candidate may be larger than Forte anticipates, enrollment in these clinical trials may be slower than Forte anticipates, or participants may drop out of these clinical trials or fail to return for post-treatment follow-up at a higher rate than Forte anticipates;
- clinical trials of its product candidates may produce negative or inconclusive results, and Forte may decide, or regulators may require it, to conduct additional clinical trials or abandon product development programs;
- regulators may require Forte to perform additional or unanticipated clinical trials to obtain approval or Forte may be subject to additional post-marketing testing requirements to maintain regulatory approval;
- regulators may revise the requirements for approving its product candidates, or such requirements may not be as Forte anticipate;
- Forte's third-party contractors may fail to comply with regulatory requirements or meet their contractual obligations to it in a timely manner, or at all, or may deviate from the clinical trial protocol or drop out of the trial, which may require that Forte add new clinical trial sites or investigators;

- the cost of clinical trials of its product candidate may be more than Forte anticipates or more than its available financial resources, and Forte may need to delay or suspend one or more trials until Forte completes additional financing transactions or otherwise receives adequate funding;
- the supply or quality of Forte's product candidate or other materials necessary to conduct clinical trials of its product candidate may be insufficient or inadequate and may not achieve compliance with applicable cGMPs;
- Forte's product candidate may have undesirable side effects or other unexpected characteristics, causing it or its investigators, regulators or IRBs or ethics committees to suspend or terminate clinical trials, or reports may arise from clinical testing of its product candidate that raise safety or efficacy concerns about its product candidate;
- clinical trials of Forte's product candidate may produce negative or inconclusive results, which may result in it deciding, or regulators requiring it, to conduct additional clinical trials or suspend or terminate its clinical trials;
- the FDA or other regulatory authorities may disagree with the design, implementation or results of its clinical trials, or require Forte to submit additional data such as long-term toxicology studies or impose other requirements before permitting it to initiate a clinical trial;
- regulatory authorities may suspend or withdraw their approval of a product or impose restrictions on its distribution;
- Forte's limited experience in filing and pursuing a BLA necessary to gain regulatory approval;
- any failure to develop substantial evidence of clinical efficacy and safety, and to develop quality standards and manufacturing processes to demonstrate consistent safety, purity, identity, and/or potency standards;
- a decision by Forte, institutional review boards, or regulators to suspend or terminate its clinical trials for various reasons, including noncompliance with regulatory requirements or a finding that the participants are being exposed to unacceptable health risks;
- regulatory inspections of its clinical trials, clinical trial sites or manufacturing facilities, which may, among other things, require Forte to undertake corrective action or suspend or terminate its clinical trials if regulators find it not to be in compliance with applicable regulatory requirements;
- Forte's ability to produce sufficient quantities of the product candidate to complete its clinical trials;
- varying interpretations of the data generated from its clinical trials; and
- changes in governmental regulations or administrative action.

Forte could also encounter delays if a clinical trial is suspended or terminated for any reason. A suspension or termination may be imposed due to a number of factors, including failure to conduct the clinical trial in accordance with regulatory requirements or its clinical protocols, inspection of the clinical trial operations or trial site by the FDA or other regulatory authorities resulting in the imposition of a clinical hold, unforeseen safety issues or adverse side effects, failure to demonstrate a benefit from using a product or treatment, failure to establish or achieve clinically meaningful trial endpoints, changes in governmental regulations or administrative actions or lack of adequate funding to continue the clinical trial. Many of the factors that cause, or lead to, a delay in the commencement or completion of clinical trials may also ultimately lead to the denial of regulatory approval of its product candidate. Further, the FDA or other regulatory authorities may disagree with its clinical trial design and its interpretation of data from clinical trials or may change the requirements for approval even after they have reviewed and commented on the design for its clinical trials.

Forte's product development costs will increase if it experiences delays in clinical testing or marketing approvals. Forte does not know whether any of its clinical trials will begin as planned, will need to be

restructured or will be completed on schedule, or at all. Significant clinical trial delays also could shorten any periods during which Forte may have the exclusive right to commercialize its product candidate and may allow its competitors to bring products to market before Forte does, potentially impairing its ability to successfully commercialize its product candidate upon approval and harming its business and results of operations. Any delays in its future clinical development programs may harm its business, financial condition and prospects significantly.

Forte's planned clinical trials or those of its future collaborators may reveal significant adverse events not seen in its preclinical studies or other clinical trials and may result in a safety profile that could inhibit regulatory approval or market acceptance of any of its product candidate.

Before obtaining regulatory approvals for the commercial sale of any products, Forte must demonstrate through lengthy, complex and expensive preclinical studies and clinical trials that FB-401 is both safe and effective for use in each target indication. Preclinical and clinical testing is expensive and can take many years to complete, and its outcome is inherently uncertain. Failure can occur at any time during the preclinical or clinical trial process. The results of preclinical studies as well as early clinical trials of its product candidate may not be predictive of the results of later-stage clinical trials. In addition, initial success in clinical trials may not be indicative of results obtained when such clinical trials are completed. There is typically an extremely high rate of attrition from the failure of product candidate proceeding through clinical trials. Forte believes that its product candidate will be well tolerated by participants in its clinical trials, but there is no certainty that it will be able to dose trial participants at a high enough dose that will demonstrate efficacy without unacceptable safety risk, such as an unanticipated immune response in clinical trial participants.

Forte's FB-401 may fail to show the desired safety and efficacy profile despite having progressed through preclinical studies and initial clinical trials. A number of companies in the healthcare industry have suffered significant setbacks in advanced clinical trials due to lack of efficacy and/or unacceptable safety issues, notwithstanding promising results in earlier preclinical studies or clinical trials. Most product candidates that commence clinical trials are never approved as products and there can be no assurance that any of its current or future clinical trials will ultimately be successful or support further clinical development of any of its product candidates.

If significant adverse events or other side effects are observed in any of its current or future clinical trials, Forte may have difficulty recruiting patients to its clinical trials, patients may drop out of its clinical trials or Forte may be required to significantly redesign or terminate trials or its development efforts of one or more product candidates altogether. Forte, the FDA, or other applicable regulatory authorities or an IRB may suspend or terminate clinical trials of a product candidate at any time for various reasons, including a belief that patients in such trials are being exposed to unacceptable health risks or adverse side effects. Some potential therapeutics developed in the healthcare industry that initially showed therapeutic promise in early-stage clinical trials have later been found to cause side effects that prevented their further development. Even if the side effects do not preclude the drug from obtaining or maintaining marketing approval, undesirable side effects may inhibit market acceptance of the approved product due to its tolerability versus other therapies. Any of these developments could materially harm Forte's business, financial condition and prospects.

Positive results from early preclinical studies and clinical trials of FB-401 are not necessarily predictive of the results of any future clinical trials of its product candidate. If Forte cannot replicate the positive results from its earlier preclinical studies and clinical trials of its product candidate in its future clinical trials, Forte may be unable to successfully develop, obtain regulatory approval for and commercialize its product candidate.

Any positive results from its preclinical studies and clinical trials of its product candidate may not necessarily be predictive of the results from required later clinical trials. Similarly, even if Forte is able to complete its planned preclinical studies or any future clinical trials of FB-401 according to its current development timeline, the positive results from such preclinical studies and clinical trials of FB-401 may not be replicated in subsequent preclinical studies or clinical trial results.

Many companies in the pharmaceutical and biotechnology industries have suffered significant setbacks in late-stage clinical trials after achieving positive results in early-stage development, and Forte cannot be certain that it will not face similar setbacks. These setbacks have been caused by, among other things, preclinical findings made while clinical trials were underway, or safety or efficacy observations made in preclinical studies and clinical trials, including previously unreported adverse events. Moreover, preclinical and clinical data are often susceptible to varying interpretations and analyses and many companies that believed their product candidate performed satisfactorily in preclinical studies and clinical trials nonetheless failed to obtain FDA or similar regulatory approval.

If Forte encounters difficulties enrolling patients in its clinical trials, its clinical development activities could be delayed or otherwise adversely affected.

Forte may experience difficulties in patient enrollment in its clinical trials for a variety of reasons. The timely completion of clinical trials in accordance with their protocols depends, among other things, on its ability to enroll a sufficient number of patients who remain in the clinical trial until its conclusion. The enrollment of patients depends on many factors, including:

- the severity of the disease or condition under investigation;
- the patient eligibility and exclusion criteria defined in the protocol;
- the size of the study patient population required for analysis of the primary endpoint(s) of the clinical trial;
- the proximity of patients to trial sites;
- the design of the clinical study or trial;
- Forte's ability to recruit investigators with the appropriate competencies and experience;
- clinicians' and patients' perceptions as to the potential advantages and risks of the product candidate being studied in relation to other available therapies, including any new drugs that may be approved for the indications Forte is investigating;
- the efforts to facilitate timely enrollment in clinical studies or trials;
- the patient referral practices of physicians;
- the ability to monitor patients adequately during and after treatment;
- Forte's ability or the ability of its CRO to ensure regulatory compliance and to obtain and maintain patient consents for its clinical trials; and
- the risk that patients enrolled in clinical trials will drop out of the clinical trials before completion.

In addition, Forte's clinical studies or trials will compete with other clinical studies or trials for product candidates that are in the same therapeutic areas as its product candidate, and this competition will reduce the number and types of patients available for its clinical trial, because some patients who might have opted to enroll in its clinical studies or trials may instead opt to enroll in a study or trial being conducted by one of its competitors. Since the number of qualified clinical investigators is limited, Forte expects to conduct some of its clinical studies or trials at the same clinical trial sites that some of its competitors may use, which will reduce the number of patients who are available for its clinical trials in such clinical trial site. Moreover, because its product candidate represents a departure from more commonly used methods for its targeted therapeutic areas, potential patients and their doctors may be inclined to use conventional therapies, rather than enroll patients in any future clinical study or trial related to Forte's product candidate.

Delays in patient enrollment may result in increased costs or may affect the timing or outcome of the planned clinical studies or trials, which could prevent completion of these clinical studies or trials and adversely affect Forte's ability to advance the development of its product candidate.

Interim top-line and preliminary data from its clinical trials that Forte announces or publishes from time to time may change as more patient data become available and are subject to audit and verification procedures that could result in material changes in the final data.

From time to time, once Forte commences future clinical trials, Forte may publish interim top-line or preliminary data from its clinical trials. Interim data from these clinical trials that Forte may complete are subject to the risk that one or more of the outcomes may materially change as patient enrollment continues and more patient data become available. Preliminary or top-line data also remain subject to audit and verification procedures that may result in the final data being materially different from the preliminary data Forte previously published. As a result, interim and preliminary data should be viewed with caution until the final data are available. Adverse differences between preliminary or interim data and final data could significantly harm its business prospects.

If Forte fails to comply with environmental, health and safety laws and regulations, Forte could become subject to significant fines or penalties or incur costs that could have a material adverse effect on the success of its business.

Forte is subject to numerous environmental, health and safety laws and regulations, including those governing laboratory procedures and the handling, use, storage, treatment and disposal of hazardous materials and wastes. research and development activities involve the use of biological and hazardous materials and produce hazardous waste products. Forte generally contracts with third parties for the disposal of these materials and wastes. Forte cannot eliminate the risk of contamination or injury from these materials, which could cause an interruption of its commercialization efforts, research and development efforts and business operations, environmental damage resulting in costly clean-up and liabilities under applicable laws and regulations governing the use, storage, handling and disposal of these materials and specified waste products. Although Forte believes that the safety procedures utilized by its third-party manufacturers for handling and disposing of these materials generally comply with the standards prescribed by these laws and regulations, Forte cannot guarantee that this is the case or eliminate the risk of accidental contamination or injury from these materials. In such an event, Forte may be held liable for any resulting damages and such liability could exceed its resources and state or federal or other applicable authorities may curtail its use of certain materials and/or interrupt its business operations. Furthermore, environmental laws and regulations are complex, change frequently and have tended to become more stringent. Forte cannot predict the impact of such changes and cannot be certain of its future compliance. In addition, Forte may incur substantial costs in order to comply with current or future environmental, health and safety laws and regulations. These current or future laws and regulations may impair its research, development or production efforts. Failure to comply with these laws and regulations also may result in substantial fines, penalties or other sanctions.

Although Forte maintain workers' compensation insurance to cover it for costs and expenses, Forte may incur due to injuries to its employees resulting from the use of biological waste or hazardous materials or other work-related injuries, this insurance may not provide adequate coverage against potential liabilities. Forte does not carry specific biological waste or hazardous waste insurance coverage, workers compensation or property and casualty and general liability insurance policies that include coverage for damages and fines arising from biological or hazardous waste exposure or contamination.

If product liability lawsuits are brought against it, Forte may incur substantial liabilities and may be required to limit commercialization of FB-401 upon approval.

Forte faces an inherent risk of product liability as a result of testing its product candidate in clinical trials and will face an even greater risk if it commercializes any products. For example, Forte may be sued if its product candidates, upon regulatory approval, are perceived to cause injury or are found to be otherwise unsuitable or defective. Any such product liability claims may include allegations of defects in manufacturing, defects in design, a failure to warn of dangers inherent in the product, negligence, strict liability or a breach of

warranties. Claims could also be asserted under state consumer protection acts. If Forte cannot successfully defend itself against product liability claims, Forte may incur substantial liabilities or be required to limit commercialization of its product candidate. Even successful defense would require significant financial and management resources. Regardless of the merits or eventual outcome, liability claims may result in:

- inability to bring a product candidate to the market;
- decreased demand for its products;
- damage to its reputation;
- withdrawal of clinical trial participants and patients and inability to enroll future participants or continue clinical trials;
- initiation of investigations by regulators;
- costs to defend the related litigation;
- diversion of management's time and its resources;
- substantial monetary awards to participants or patients;
- product recalls, withdrawals or labeling, marketing or promotional restrictions;
- loss of revenue;
- exhaustion of any available insurance and its capital resources;
- the inability to commercialize any product candidate via any regulatory pathway; and
- decline in its share price.

While Forte maintains clinical trial insurance, it cannot anticipate all the risks associated with its clinical trials or risks after regulatory approval and commercial launch of its product. Forte reviews its clinical trial insurance policy annually, and Forte believes that its coverage is currently adequate to cover any claims that may arise in connection with its clinical trials. There is no guarantee that Forte will be able to obtain additional clinical trial insurance at an acceptable cost in the future, which could prevent or inhibit the ongoing development of its products.

Since Forte has not yet commenced marketing of any products Forte does not yet hold product liability insurance for commercialization of its products. its inability to obtain sufficient product liability insurance at an acceptable cost to protect against potential product liability claims could prevent or inhibit the commercialization of products Forte develop, alone or with collaborators. If and when coverage is secured, its insurance policies may also have various exclusions, and Forte may be subject to a product liability claim for which Forte has no coverage. Forte may have to pay any amounts awarded by a court or negotiated in a settlement that exceed its coverage limitations or that are not covered by its insurance, and Forte may not have, or be able to obtain, sufficient capital to pay such amounts. Even if its agreements with any future corporate collaborators entitle Forte to indemnification against losses, such indemnification may not be available or adequate should any claim arise.

The market opportunities for FB-401 may be limited and its estimates of the incidence and prevalence of its target patient populations may be inaccurate.

Forte's projections of both the number of people who have the diseases Forte is targeting, as well as the subset of people with these diseases in a position to receive its therapies, if approved, are based on its beliefs and estimates. These estimates have been derived from a variety of sources, including scientific literature, input from key opinion leaders, patient foundations or secondary market research databases, and may prove to be incorrect. Further, new studies may change the estimated incidence or prevalence of these diseases or regulatory approvals

may include limitations for use or contraindications that decrease the addressable patient population. The number of patients may turn out to be lower than expected. Additionally, the potentially addressable patient population for its product candidate may be limited or may not be amenable to treatment with its product candidate. Even if Forte obtains significant market share for its product candidate, because certain of the potential target populations are small, Forte may never achieve profitability without obtaining regulatory approval for additional indications.

Forte faces significant competition from other healthcare companies, and its operating results will suffer if Forte fails to compete effectively.

The healthcare industry is characterized by intense competition and rapid innovation. Forte's competitors may be able to develop other compounds or products that are able to achieve similar or better results. Forte's potential competitors include major multinational pharmaceutical, established biotechnology companies, specialty pharmaceutical companies and universities and other research institutions. Many of its competitors have substantially greater financial, technical and other resources, such as larger research and development staff, experienced marketing and manufacturing organizations and well-established sales forces. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large, established companies. Established pharmaceutical companies may also invest heavily to accelerate discovery and development of novel therapeutics or to in-license novel therapeutics that could make the product candidate that Forte develop obsolete. Mergers and acquisitions in the healthcare industry may result in even more resources being concentrated amongst its competitors. Competition may increase further as a result of advances in the commercial applicability of technologies and greater availability of capital for investment in these industries. Forte's competitors, either alone or with collaborative partners, may succeed in developing, acquiring or licensing on an exclusive basis microbiome therapies that are more effective, safer, more easily commercialized or less costly than FB-401 or may develop proprietary technologies or secure patent protection that Forte may need for the development of its technologies and products. Forte believes the key competitive factors that will affect the development and commercial success of its product candidate are efficacy, safety, tolerability, reliability, convenience of use, compliance with regulatory requirements, acceptance by patients or prescribers, competitive pricing and reimbursement.

Forte anticipates competing with the largest healthcare companies in the world, many of which have greater financial, human, and manufacturing resources than Forte currently has. In addition to these fully integrated healthcare companies, Forte also competes with those companies whose products target the same indications as FB-401. They include pharmaceutical companies, biotechnology companies, academic institutions and other research organizations. Any treatments developed by its competitors could be superior to its product candidate. It is possible that these competitors will succeed in developing technologies that are more effective than Forte's products or that would render its product candidate obsolete or noncompetitive. Forte anticipates that it will face increased competition in the future as additional companies enter its market and scientific developments surrounding competing therapies continue to accelerate.

Even if Forte obtains regulatory approval to market FB-401, the availability and price of its competitors' products could limit the demand and the price Forte is able to charge for FB-401. Forte may not be able to implement its business plan if the acceptance of its product candidate is inhibited by price competition or the reluctance of physicians to switch from existing methods of treatment to its product candidate, or if physicians switch to other new drug or biologic products or choose to reserve its product candidate for use in limited circumstances.

Even if FB-401 or any other product candidate that Forte develops receives marketing approval, it may fail to achieve the degree of market acceptance by physicians, patients, third-party payors, consumers and others in the medical or healthcare community necessary for commercial success.

If any product candidate Forte develops receives marketing approval, it may nonetheless fail to gain sufficient market acceptance by physicians, patients, third-party payors, consumers and others in the medical

community. If the product candidate Forte develops does not achieve an adequate level of acceptance, Forte may not generate significant product revenues and Forte may not become profitable. The degree of market acceptance of any product candidate, if approved for commercial sale, will depend on a number of factors, including:

- efficacy, safety and potential advantages compared to alternative treatments;
- the labeled uses or limitations for use, including age limitations or contraindications, for its product candidate compared to alternative treatments
- convenience and ease of administration compared to alternative treatments;
- the willingness of the target patient population to try new therapies and of physicians to prescribe these therapies;
- public perception of new therapies;
- the strength of marketing and distribution support;
- the ability to offer its products, if approved, for sale at competitive prices;
- the ability to obtain sufficient third-party insurance coverage and adequate reimbursement; and
- the prevalence and severity of any side effects.

Forte's operations and financial results could be adversely impacted by the 2019 Novel Coronavirus (COVID-19) outbreak in China and the rest of the world including the United States.

In December 2019, a novel strain of coronavirus (COVID-19) was reported to have surfaced in Wuhan, China, resulting in significant disruptions to manufacturing, supply chain, markets, and travel world-wide, especially businesses involving activities or operations in China. While the extent of the impact of the current COVID-19 coronavirus outbreak on Forte's business and financial results is uncertain, a continued and prolonged public health crisis such as the COVID-19 coronavirus outbreak could have a negative impact on its business, financial condition and operating results. Due to the global pandemic impacting the United States, its clinical trial recruiting and participants could also be slowed or delayed, or in a more severe scenario, its business, financial condition and operating results could be more severely affected. Given the dynamic nature of these circumstances, the duration of any business disruption or potential impact to its business of the COVID-19 coronavirus is difficult to predict, which may increase its costs or expenses.

Forte will need to grow the size of its organization, and Forte may experience difficulties in managing this growth.

As of December 31, 2019, Forte had 1 full-time employee, and as of the closing of the Merger, Forte plans to have five full-time employees. As its research, development, manufacturing and commercialization plans and strategies develop, and as Forte transitions into operating as a public company after the Merger, Forte expects to need additional managerial, operational, sales, marketing, financial and other personnel. Future growth would impose significant added responsibilities on members of management, including:

- identifying, recruiting, compensating, integrating, maintaining and motivating additional employees;
- managing its internal research and development efforts effectively, including identification of clinical candidates, scaling its manufacturing process and navigating the clinical and FDA review process for its product candidate; and
- improving its operational, financial and management controls, reporting systems and procedures.

Forte's future financial performance and its ability to commercialize FB-401 will depend, in part, on its ability to effectively manage any future growth, and its management may also have to divert a disproportionate amount of its attention away from day-to-day activities in order to devote a substantial amount of time to managing these growth activities.

Forte currently relies, and for the foreseeable future will continue to rely, in substantial part on certain organizations, advisors and consultants to provide certain services, including many aspects of regulatory affairs, clinical management and manufacturing. There can be no assurance that the services of these organizations, advisors and consultants will continue to be available to Forte on a timely basis when needed or that Forte can find qualified replacements. In addition, if Forte is unable to effectively manage its outsourced activities or if the quality or accuracy of the services provided by consultants is compromised for any reason, its clinical trials may be extended, delayed or terminated, and Forte may not be able to obtain regulatory approval ofFB-401 or otherwise advance its business. There can be no assurance that Forte will be able to manage its existing consultants or find other competent outside contractors and consultants on economically reasonable terms, or at all.

If Forte is not able to effectively expand its organization by hiring new employees and expanding its groups of consultants and contractors, Forte may not be able to successfully implement the tasks necessary to further develop and commercialize its product candidate and, accordingly, may not achieve its research, development and commercialization goals.

Forte's current operations are located in California, and Forte or the third parties upon whom Forte depends, may be adversely affected by natural disasters or the COVID-19 outbreak, and its business continuity and disaster recovery plans may not adequately protect Forte from a serious disaster.

Forte's current operations are located in California. Any unplanned event, such as flood, fire, explosion, earthquake, extreme weather condition, medical epidemics, such as the COVID-19 outbreak, power shortage, telecommunication failure or other natural or manmade accidents or incidents that result in it being unable to fully utilize its facilities, or the manufacturing facilities of its third-party contract manufacturers, may have a material and adverse effect on its ability to operate its business, particularly on a daily basis, and have significant negative consequences on its financial and operating conditions. Loss of access to these facilities may result in increased costs, delays in the development of its product candidate or interruption of its business operations. Earthquakes or other natural disasters could further disrupt its operations and have a material and adverse effect on its business, financial condition, results of operations and prospects. If a natural disaster, power outage or other event occurred that prevented it from using all or a significant portion of its headquarters, that damaged critical infrastructure, such as its research facilities or the manufacturing facilities of its third-party contract manufacturers, or that otherwise disrupted operations, it may be difficult or, in certain cases, impossible, for Forte to continue its business for a substantial period of time. The disaster recovery and business continuity plans Forte has in place may prove inadequate in the event of a serious disaster or similar event. Forte may incur substantial expenses as a result of the limited nature of its disaster recovery and business continuity plans, which, could have a material adverse effect on its business. As part of its risk management policy, Forte maintains insurance coverage at levels that Forte believes are appropriate for its business. However, in the event of an accident or incident at these facilities, Forte cannot assure you that the amounts of insurance will be sufficient to satisfy any damages and losses. If its facilities, or the manufacturing facilities of its third-party contract manufacturers, are unable to operate because of an accident or incident or for any other reason, even for a short period of time, any or all of its research and development programs may be harmed. Any business interruption may have a material and adverse effect on its business, financial condition, results of operations and prospects.

If Forte loses key management personnel, or if Forte fails to recruit additional highly skilled personnel, its ability to identify and develop new or next generation product candidate will be impaired, could result in loss of markets or market share and could make Forte less competitive.

Forte's ability to compete in the highly competitive healthcare industry depends upon its ability to attract and retain highly qualified managerial, scientific and medical personnel. Forte is highly dependent on its management, scientific and medical personnel, including Paul Wagner, Ph.D. The loss of the services of any of its executive officers, other key employees, and other scientific and medical advisors, and its inability to find suitable replacements could result in delays in product development and harm its business.

Forte conducts its operations in California. Competition for skilled personnel in its market is intense and may limit its ability to hire and retain highly qualified personnel on acceptable terms or at all.

To retain valuable employees at its company in a competitive market, in addition to salary and cash incentives, Forte has provided stock options that vest over time. The value to employees of stock options that vest over time may be significantly affected by movements in its stock price that are beyond its control and may at any time be insufficient to counteract more lucrative offers from other companies. Despite its efforts to retain valuable employees, members of its management, scientific and development teams may terminate their employment with Forte on short notice. Employment of its key employees is at-will, which means that any of its employees could leave its employment at any time, with or without notice. Forte does not maintain "key man" insurance policies on the lives of these individuals or the lives of any of its other employees. Forte's success also depends on its ability to continue to attract, retain and motivate highly skilled junior, mid-level and senior managers as well as junior, mid-level and senior scientific and medical personnel.

Business disruptions could seriously harm Forte's future revenue and financial condition and increase its costs and expenses.

Forte's operations, and those of its CROs, contract manufacturing organizations ("CMOs"), and other contractors and consultants, could be subject to earthquakes, power shortages, telecommunications failures, water shortages, floods, hurricanes, typhoons, fires, extreme weather conditions, medical epidemics and other natural or man-made disasters or business interruptions, for which Forte is predominantly self-insured. The occurrence of any of these business disruptions could seriously harm its operations and financial condition and increase its costs and expenses. For materials to be used in its clinical trials, Forte plans to rely on an external contract manufacturing organization for the entire manufacturing supply chain. Forte's ability to obtain clinical supplies of its product candidate could be disrupted if the operations of these suppliers are affected by a man-made or natural disaster or other business interruption.

Forte's internal computer systems, or those used by its CROs, CMOs or other contractors or consultants, may fail or suffer security breaches.

Despite the implementation of security measures, Forte's internal computer systems and those of its future CROs, CMOs and other contractors and consultants are vulnerable to damage from computer viruses and unauthorized access. While Forte has not experienced any such material system failure or security breach to date, if such an event were to occur and cause interruptions in its operations, it could result in a material disruption of its development programs and its business operations. For example, the loss of clinical trial data from completed or future clinical trials could result in delays in its regulatory approval efforts and significantly increase its costs to recover or reproduce the data. Likewise, Forte currently relies on third parties for the manufacture of its product candidate and to conduct clinical trials, and similar events relating to their computer systems could also have a material adverse effect on its business. To the extent that any disruption or security breach were to result in a loss of, or damage to, its data or applications, or inappropriate disclosure of confidential or proprietary information, Forte could incur liability and the further development and commercialization of its product candidate could be delayed.

Regulators globally are also imposing greater monetary fines for privacy violations. For example, in 2016, the European Union adopted the GDPR, which became effective on May 25, 2018. The GDPR applies to any company that collects and uses personal data in connection with offering goods or services to individuals in the European Union or the monitoring of their behavior. Non-compliance with the GDPR may result in monetary penalties of up to €20 million or 4% of worldwide revenue, whichever is higher. The GDPR and other changes in laws or regulations associated with the enhanced protection of certain types of personal data, such as healthcare data or other sensitive information, could greatly increase the cost of providing its product candidate, if approved, or even prevent Forte from offering its product candidate, if approved, in certain jurisdictions.

Forte's employees, independent contractors, consultants, commercial partners and vendors acting on its behalf may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements.

Forte is exposed to the risks of employee fraud or other illegal activity by its employees, independent contractors, consultants, commercial partners and vendors acting on its behalf. Misconduct by these parties could include intentional, reckless and/or negligent conduct that fails to comply with the laws of the FDA and other similar foreign regulatory bodies, provide true, complete and accurate information to the FDA and other similar foreign regulatory bodies, comply with manufacturing standards Forte has established, comply with healthcare fraud and abuse laws in the United States and similar foreign fraudulent misconduct laws or report financial information or data accurately or to disclose unauthorized activities to us. If Forte obtains FDA approval of any of its product candidate and begin commercializing those products in the United States, its potential exposure under such laws will increase significantly, and its costs associated with compliance with such laws are also likely to increase. These laws may impact, among other things, its current activities with principal investigators and research patients, as well as proposed and future sales, marketing and education programs.

Manufacturers of biopharmaceutical products and their facilities, vendors and suppliers are subject to continual review and periodic unannounced inspections by the FDA and other regulatory authorities for compliance with cGMP regulations, which include requirements relating to quality control and quality assurance as well as to the corresponding maintenance of records and documentation. Furthermore, its manufacturing facilities must be approved by regulatory agencies before these facilities can be used to manufacture its products or product candidates, and they will also be subject to additional regulatory inspections. Any material changes Forte may make to its manufacturing process or to the components used in its products may require additional prior approval by the FDA and state or foreign regulatory authorities. Failure to comply with FDA or other applicable regulatory requirements may result in criminal prosecution, civil penalties, recall or seizure of products, partial or total suspension of production or withdrawal of a product from the market.

A variety of risks associated with testing and developing its product candidate internationally could materially adversely affect its business.

Forte may seek regulatory approval of its product candidate outside of the United States and, if so, Forte expects that it will be subject to additional risks related to operating in foreign countries if Forte obtains the necessary approvals, including:

- differing regulatory requirements in foreign countries;
- unexpected changes in tariffs, trade barriers, price and exchange controls, import or export controls, and other regulatory requirements;
- economic weakness, including inflation, or political instability in particular foreign economies and markets;
- compliance with tax, employment, immigration and labor laws for employees living or traveling abroad;
- foreign taxes, including withholding of payroll taxes;
- foreign currency fluctuations, which could result in increased operating expenses and reduced revenue, and other obligations incident to doing business in another country;
- difficulties staffing and managing foreign operations;
- workforce uncertainty in countries where labor unrest is more common than in the United States;
- potential liability under the Foreign Corrupt Practices Act ("FCPA"), or comparable foreign regulations;

- challenges enforcing its contractual and intellectual property rights, especially in those foreign countries that do not respect and protect intellectual property rights to the same extent as the United States;
- production shortages resulting from any events affecting raw material supply or manufacturing capabilities abroad; and
- business interruptions resulting from geo-political actions, including war and terrorism.

These and other risks associated with its international operations may materially adversely affect its ability to attain or maintain profitable operations.

Obtaining and maintaining regulatory approval of its product candidates in one jurisdiction does not guarantee that Forte will be able to obtain or maintain regulatory approval in any other jurisdiction, while a failure or delay in obtaining regulatory approval in one jurisdiction may have a negative effect on the regulatory approval process in others. For example, even if the FDA grants marketing approval of a product candidate, comparable regulatory authorities in foreign jurisdictions must also approve the product, manufacturing, and in many cases reimbursement of the product candidate in those countries. Approval procedures vary among jurisdictions and can involve requirements and administrative review periods different from, and greater than, those in the United States, including additional preclinical studies or clinical trials as clinical studies conducted in one jurisdiction may not be accepted by regulatory authorities in other jurisdictions. In some cases, the price that Forte intends to charge for its products is also subject to approval by regulatory authorities. If Forte fails to comply with the regulatory requirements in international markets and/or receive applicable marketing approvals, its target market will be reduced and its ability to realize the full market potential of its product candidates will be harmed.

Forte currently has no marketing and sales organization and has no experience in marketing products. If Forte is unable to establish marketing and sales capabilities or enter into agreements with third parties to market and sell its product candidate, Forte may not be able to generate product revenue.

Forte currently have no sales, marketing or distribution capabilities and have no experience in marketing products. Forte intends to develop an in-house marketing organization and sales force, which will require significant capital expenditures, management resources and time. Forte will have to compete with other healthcare companies to recruit, hire, train and retain marketing and sales personnel.

In addition to establishing internal sales, marketing and distribution capabilities, Forte intends to optimistically pursue collaborative arrangements regarding the sales and marketing of its products, however, there can be no assurance that Forte will be able to establish or maintain such collaborative arrangements, or if Forte is able to do so, that it will have effective sales forces. Any revenue Forte receives will depend upon the efforts of such third parties, which may not be successful. Forte may have little or no control over the marketing and sales efforts of such third parties and its revenue from product sales may be lower than if Forte had commercialized its product candidate ourselves. Forte also faces competition in its search for third parties to assist it with the sales and marketing efforts of its product candidate, FB-401.

There can be no assurance that Forte will be able to develop in-house sales and distribution capabilities or establish or maintain relationships with third-party collaborators to commercialize any product in the United States or overseas.

The FDA and other regulatory authorities may implement additional regulations or restrictions on the development and commercialization of biopharmaceutical products that contain live bacteria, which may be difficult to predict.

The FDA and regulatory authorities in other countries have each expressed interest in further regulating biotechnology products and product candidates. Agencies at both the federal and state level in the United States,

as well as the U.S. Congressional committees and other governments or governing agencies, have also expressed interest in further regulating the biotechnology industry. Such action may delay or prevent commercialization of some or all of Forte's current and future product candidates. Adverse developments in clinical trials of products containing live bacteria conducted by others may cause the FDA or other oversight bodies to change the requirements for approval of any of its product candidates. These regulatory review agencies and committees and the new requirements or guidelines they promulgate may lengthen the regulatory review process, require Forte to perform additional studies or trials, increase its development costs, lead to changes in regulatory positions and interpretations, delay or prevent approval and commercialization of its product candidate or lead to significant post-approval limitations or restrictions. As Forte advances its product candidate, Forte will be required to consult with these regulatory agencies and comply with applicable requirements and guidelines. If Forte fails to do so, Forte may be required to delay or discontinue development of such product candidate. These additional processes may result in a review and approval process that is longer than Forte otherwise would have expected, delays as a result of an increased or lengthier regulatory approval process or further restrictions on the development of its product candidate can be costly and could negatively impact its ability to complete clinical trials and commercialize its current and future product candidate in a timely manner, if at all.

Comprehensive tax reform legislation could adversely affect its business and financial condition.

Recent changes to U.S. tax laws, as well as changes to U.S. tax laws that may be enacted in the future, could impact the tax treatment of its business and financial condition. For example, on December 22, 2017, President Trump signed into law the Tax Act, that significantly reforms the Code. The Tax Act, among other things, contains significant changes to corporate taxation, including changes to U.S. federal tax rates, limitation of the tax deduction for interest expense, and the modification and repeal of many business deductions and credits (including the reduction of the business tax credit for certain clinical testing expenses incurred in the testing of certain drugs for rare diseases or conditions generally referred to as "orphan drugs"). Forte continues to examine the impact this tax reform legislation may have on its business. The impact of the Tax Act and other changes to U.S. tax laws, and regulations or interpretations thereof, on its business is uncertain and could be adverse.

Forte's ability to use net operating losses and research and development credits to offset future taxable income or tax liability may be subject to certain limitations.

As of December 31, 2019, Forte had U.S. federal NOL carryforwards and state NOL carryforwards of approximately $2 million and $2 million, respectively. Forte's U.S. federal NOL carryforwards arising in tax years ending on or before December 31, 2017 will begin expiring in varying amounts in 2038 and 2039, respectively, unless utilized. Its U.S. federal NOL carryforwards arising in taxable years ending after December 31, 2017 will be carried forward indefinitely. Additionally, the deductibility of its U.S. federal NOL carryforwards arising in tax years beginning after December 31, 2017 is limited to 80% of current year taxable income in tax years beginning after December 31, 2020. These NOL carryforwards could expire unused and be unavailable to offset future taxable income or tax liabilities, respectively. In addition, in general, under Sections 382, a corporation that undergoes an "ownership change" is subject to limitations on its ability to utilize its pre-change NOLs to offset future taxable income or taxes. For these purposes, an ownership change generally occurs where the aggregate stock ownership of one or more stockholders or groups of stockholders who owns at least 5% of a corporation's stock increases its ownership by more than 50 percentage points over its lowest ownership percentage within a specified testing period. Forte's existing NOL carryforwards may be subject to limitations arising from previous ownership changes, and if Forte undergo an ownership change in connection with or after the Merger, its ability to utilize NOL carryforwards could be further limited by Section 382. In addition, future changes in its stock ownership, many of which are outside of its control, could result in an ownership change under Sections 382. Forte's NOL carryforwards may also be impaired under state law. Accordingly, Forte may not be able to utilize a material portion of its NOL carryforwards. Furthermore, its ability to utilize its NOL carryforwards is conditioned upon its attaining profitability and generating U.S. federal and state taxable income. As described above, Forte has incurred significant net losses since its inception and anticipate that Forte will continue to incur significant losses for the foreseeable future; and therefore, Forte does

not know whether or when Forte will generate the U.S. federal or state taxable income necessary to utilize its NOL carryforwards that are subject to limitation by Sections 382.

Unstable market and economic conditions may have serious adverse consequences on Forte's business, financial condition and stock price.

As widely reported, global credit and financial markets have experienced extreme volatility and disruptions in the past, including severely diminished liquidity and credit availability, declines in consumer confidence, declines in economic growth, increases in unemployment rates and uncertainty about economic stability. There can be no assurance that further deterioration in credit and financial markets and confidence in economic conditions will not occur. Forte's general business strategy may be adversely affected by any such economic downturn, volatile business environment or continued unpredictable and unstable market conditions. If the current equity and credit markets deteriorate, or do not improve, it may make any necessary debt or equity financing more difficult, more costly, and more dilutive. Failure to secure any necessary financing in a timely manner and on favorable terms could have a material adverse effect on its growth strategy, financial performance and stock price and could require Forte to delay or abandon clinical development plans. In addition, there is a risk that one or more of its current service providers, manufacturers and other partners may not survive these difficult economic times, which could directly affect its ability to attain its operating goals on schedule and on budget. Furthermore, its stock price may decline due in part to the volatility of the stock market and the general economic downturn.

Risks related to government regulation

Forte is very early in its development efforts. FB-401 will require significant additional clinical development before Forte seeks regulatory approval of its product candidate and launch a product commercially. If Forte is unable to advance its product candidate, FB-401, to clinical development, obtain regulatory approval and ultimately commercialize its product candidate or experiences significant delays in doing so, its business will be materially harmed.

Forte is very early in its development efforts and have invested substantially all of its efforts and financial resources in the development ofFB-401. Its ability to generate product revenues, which Forte does not expect will occur for many years, if ever, will depend on the successful development and eventual commercialization of its product candidate, which may never occur. Forte currently generates no revenue from sales of any products, and Forte may never be able to develop or commercialize a marketable product. The success of FB-401 will depend on several factors, including the following:

- approval of INDs for its future clinical trials on product candidates other than FB-401;
- successful enrollment in, and completion of, clinical trials;
- receipt of regulatory approvals from applicable regulatory authorities for FB-401 or any other product candidate;
- establishing cGMP-compliant clinical supply and commercial manufacturing operations or making arrangements with third-party manufacturers for clinical supply and commercial manufacturing;
- obtaining and maintaining patent and trade secret protection or regulatory exclusivity for its product candidate;
- launching commercial sales of its product candidate, if and when approved or allowed for marketing, whether alone or in collaboration with others;
- acceptance of its product candidate, if and when approved, by patients, the medical community and third-party payors;
- effectively competing with other therapies;

- obtaining and maintaining third-party insurance coverage and adequate reimbursement;
- enforcing and defending intellectual property rights and claims;
- the marketing of its products; and
- maintaining a continued acceptable safety profile of the product candidate following approval or commercialization.

If Forte does not achieve one or more of these factors in a timely manner or at all, Forte could experience significant delays or an inability to successfully commercialize its product candidate, which would materially harm its business. If Forte does not receive regulatory approvals for its product candidate, it may not be able to continue its operations.

Changes in the legal and regulatory environment could limit Forte's future business activities, increase its operating or regulatory costs, reduce demand for its product candidate or result in litigation.

The conduct of Forte's business, including the development, testing, production, storage, distribution, sale, display, advertising, marketing, labeling, health and safety practices are subject to various laws and regulations administered by federal, state and local governmental agencies in the United States, as well as to laws and regulations administered by government entities and agencies outside the United States in markets in which its products candidates and components thereof (such as packaging) may be manufactured or sold.

These laws and regulations and interpretations thereof may change, sometimes dramatically, as a result of a variety of factors, including political, economic or social events. Such changes may include changes in:

- FDA regulations;
- laws related to product candidate labeling;
- advertising and marketing laws and practices;
- laws and programs restricting the sale and advertising of certain products;
- increased regulatory scrutiny of, and increased litigation involving, product claims and concerns regarding the actual or possible effects or side effects of its product candidate; and
- state and federal consumer protection and disclosure laws.

New laws, regulations or governmental policy and their related interpretations, or changes in any of the foregoing, may alter the environment in which Forte does business and, therefore, may impact its operating results or increase its costs or liabilities

Inadequate funding for the FDA, the SEC and other government agencies, or disruptions in their staffing levels related to the COVID-19 global pandemic, could hinder their ability to hire and retain key leadership and other personnel, prevent new products and services from being developed or commercialized in a timely manner or otherwise prevent those agencies from performing normal business functions on which the approval of Forte's product candidates rely, which would negatively impact its business.

The ability of the FDA to review and approve new products can be affected by a variety of factors, including government budget and funding levels, ability to hire and retain key personnel and accept the payment of user fees, and statutory, regulatory, and policy changes. Average review times at the agency have fluctuated in recent years as a result. In addition, government funding of the SEC and other government agencies on which its operations may rely, including those that fund research and development activities is subject to the political process, which is inherently fluid and unpredictable.

Disruptions at the FDA and other agencies may also slow the time necessary for new drugs to be reviewed and/or approved by necessary government agencies, which would adversely affect its business. For example,

over the last several years, including beginning on December 22, 2018, the U.S. government has shut down several times and certain regulatory agencies, such as the FDA and the SEC, have had to furlough critical FDA, SEC and other government employees and stop critical activities. If a prolonged government shutdown occurs, it could significantly impact the ability of the FDA to timely review and process its regulatory submissions, which could have a material adverse effect on its business, including its ability to access the public markets and obtain necessary capital in order to properly capitalize and continue its operations.

Forte's relationships with healthcare providers, including physicians and clinical investigators, CROs, and third-party payors in connection with its current and future business activities may be subject to federal and state healthcare fraud and abuse laws, false claims laws, transparency laws, government price reporting, and health information privacy and security laws, which could expose Forte to significant losses, including, among other things, criminal sanctions, civil penalties, contractual damages, reputational harm, exclusion from federal health care programs, administrative burdens, and diminished profits and future earnings.

Healthcare providers, physicians and third-party payors in the United States and elsewhere play a primary role in the recommendation and prescription of pharmaceutical products. Arrangements with third-party payors and customers can expose pharmaceutical manufactures to broadly applicable fraud and abuse and other healthcare laws and regulations, including, without limitation, the federal Anti-Kickback Statute and the federal False Claims Act, which may constrain the business or financial arrangements and relationships through which such companies sell, market and distribute pharmaceutical products. In particular, the research, promotion, sales and marketing of healthcare items and services, as well as certain business arrangements in the healthcare industry, are subject to extensive laws designed to prevent fraud, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, structuring and commission(s), certain customer incentive programs and other business arrangements generally. Activities subject to these laws also involve the improper use of information obtained in the course of patient recruitment for clinical trials. The applicable federal, state and foreign healthcare laws and regulations laws that may affect Forte's ability to operate include, but are not limited to:

- The federal Anti-Kickback Statute, which prohibits, among other things, knowingly and willfully soliciting, receiving, offering or paying any remuneration (including any kickback, bribe or rebate), directly or indirectly, overtly or covertly, in cash or in kind, to induce, or in return for, either the referral of an individual, or the purchase, lease, order or recommendation of any good, facility, item or service for which payment may be made, in whole or in part, under a federal healthcare program, such as the Medicare and Medicaid programs. In addition, a claim including items or services resulting from a violation of the federal Anti-Kickback Statute can constitute a false or fraudulent claim under the False Claims Act ("FCA"). The Anti-Kickback Statute has been interpreted to apply to arrangements between pharmaceutical manufacturers on the one hand and a referral source on the other, including prescribers, purchasers, and formulary managers. There are a number of statutory exceptions and regulatory safe harbors protecting some common activities from prosecution, but the exceptions and safe harbors are drawn narrowly and require strict compliance in order to offer protection;
- federal civil and criminal false claims laws, including the FCA, and civil monetary penalty laws, which prohibit, among other things, individuals or entities from knowingly presenting, or causing to be presented, false or fraudulent claims for payment to, or approval by Medicare, Medicaid, or other federal healthcare programs, knowingly making, using or causing to be made or used a false record or statement material to a false or fraudulent claim or an obligation to pay or transmit money to the federal government, or knowingly concealing or knowingly and improperly avoiding or decreasing or concealing an obligation to pay money to the federal government. Manufacturers can be held liable under the FCA even when they do not submit claims directly to government payors if they are deemed to "cause" the submission of false or fraudulent claims. The FCA also permits a private individual acting as a "whistleblower" to bring actions on behalf of the federal government alleging violations of the FCA and to share in any monetary recovery;

- HIPAA, which created new federal criminal statutes that prohibit knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program or obtain, by means of false or fraudulent pretenses, representations, or promises, any of the money or property owned by, or under the custody or control of, any healthcare benefit program, regardless of the payor (e.g., public or private) and knowingly and willfully falsifying, concealing or covering up by any trick or device a material fact or making any materially false statements in connection with the delivery of, or payment for, healthcare benefits, items or services relating to healthcare matters. A person or entity can be found guilty of violating HIPAA without actual knowledge of the statute or specific intent to violate it;
- HIPAA, as amended by HITECH, and their respective implementing regulations, which impose, among other things, requirements on certain covered healthcare providers, health plans, and healthcare clearinghouses as well as their respective business associates that perform services for them that involve the use, or disclosure of, individually identifiable health information, relating to the privacy, security and transmission of individually identifiable health information without appropriate authorization. HITECH also created new tiers of civil monetary penalties, amended HIPAA to make civil and criminal penalties directly applicable to business associates, and gave state attorneys general new authority to file civil actions for damages or injunctions in federal courts to enforce the federal HIPAA laws and seek attorneys' fees and costs associated with pursuing federal civil actions;
- the federal Physician Payments Sunshine Act, created under the Patient Protection and Affordable Care Act, and its implementing regulations, which require applicable manufacturers of certain drugs, devices, biologicals and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program (with certain exceptions) to report annually to the United States Department of Health and Human Services information related to payments or other transfers of value made to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors) and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members;
- federal consumer protection and unfair competition laws, which broadly regulate marketplace activities and activities that potentially harm consumers;
- analogous state and foreign laws and regulations, such as state anti-kickback and false claims laws, which may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental third-party payors, including private insurers, and may be broader in scope than their federal equivalents; state and foreign laws that require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government or otherwise restrict payments that may be made to healthcare providers; state and foreign laws that require drug manufacturers to report information related to payments and other transfers of value to physicians and other healthcare providers or marketing expenditures; and state and foreign laws governing the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts; and
- GDPR and other ex-U.S. protections.

The distribution of pharmaceutical products is subject to additional requirements and regulations, including extensive record-keeping, licensing, storage and security requirements intended to prevent the unauthorized sale of pharmaceutical products.

The scope and enforcement of each of these laws is uncertain and subject to rapid change in the current environment of healthcare reform. Federal and state enforcement bodies have recently increased their scrutiny of interactions between healthcare companies and healthcare providers, which has led to a number of investigations, prosecutions, convictions and settlements in the healthcare industry. Ensuring business arrangements comply with applicable healthcare laws, as well as responding to possible investigations or inquiries by government authorities, can be time- and resource-consuming and can divert a company's attention from the business.

The failure to comply with any of these laws or regulatory requirements subjects entities to possible legal or regulatory action. Depending on the circumstances, failure to meet applicable regulatory requirements can result in civil, criminal and administrative penalties, damages, fines, disgorgement, individual imprisonment, possible exclusion from participation in federal and state funded healthcare programs, contractual damages and the curtailment or restricting of its operations, as well as additional reporting obligations and oversight if Forte becomes subject to a corporate integrity agreement or other agreement to resolve allegations of non-compliance with these laws. Any action for violation of these laws, even if successfully defended, could cause a pharmaceutical manufacturer to incur significant legal expenses and divert management's attention from the operation of the business. Prohibitions or restrictions on sales or withdrawal of future marketed products could materially affect business in an adverse way.

After the Merger, Forte will have adopted a code of business conduct and ethics, but it is not always possible to identify and deter employee misconduct, and the precautions Forte takes to detect and prevent inappropriate conduct may not be effective in controlling unknown or unmanaged risks or losses or in protecting Forte from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations. Efforts to ensure that its business arrangements will comply with applicable healthcare laws may involve substantial costs. It is possible that governmental and enforcement authorities will conclude that its business practices may not comply with current or future statutes, regulations or case law interpreting applicable fraud and abuse or other healthcare laws and regulations. If any such actions are instituted against us, and Forte is not successful in defending ourselves or asserting its rights, those actions could have a significant impact on its business, including the imposition of civil, criminal and administrative penalties, damages, disgorgement, monetary fines, possible exclusion from participation in Medicare, Medicaid and other federal healthcare programs, contractual damages, reputational harm, diminished profits and future earnings, and curtailment of its operations, any of which could adversely affect its ability to operate its business and its results of operations. In addition, the approval and commercialization of any of its product candidates outside the United States will also likely subject Forte to foreign equivalents of the healthcare laws mentioned above, among other foreign laws.

Obtaining and maintaining regulatory approval of any of its product candidates in one jurisdiction does not mean that Forte will be successful in obtaining regulatory approval for its product candidate in other jurisdictions.

Obtaining and maintaining regulatory approval does not guarantee that Forte will be able to obtain or maintain regulatory approval in any other jurisdiction, while a failure or delay in obtaining regulatory approval in one jurisdiction may have a negative effect on the regulatory approval process in others. For example, even if the FDA grants marketing approval of a product candidate, comparable regulatory authorities in foreign jurisdictions must also approve the manufacturing, marketing and promotion of the product candidate in those countries. Approval procedures vary among jurisdictions and can involve requirements and administrative review periods different from, and greater than, those in the United States, including additional preclinical studies and clinical trials conducted in one jurisdiction may not be accepted by regulatory authorities in other jurisdictions. In many jurisdictions outside the United States, a product candidate must be approved for reimbursement before it can be approved for sale in that jurisdiction. In some cases, the price that Forte intends to charge for its products may also be subject to approval.

Forte may also submit marketing applications in other countries. Regulatory authorities in jurisdictions outside of the United States have requirements for approval of a product candidate with which Forte must comply prior to marketing in those jurisdictions. Obtaining foreign regulatory approvals and compliance with foreign regulatory requirements could result in significant delays, difficulties and costs for Forte and could delay or prevent the introduction of its products in certain countries. If Forte fails to comply with the regulatory requirements in international markets and/or receive applicable marketing approvals, its target market will be reduced and its ability to realize the full market potential of its product candidate will be harmed.

Clinical development is uncertain. Forte's clinical trials may experience delays or may never advance to the next stage of development, which would adversely affect its ability to obtain regulatory approvals to commercialize these programs on a timely basis or at all, which would have an adverse effect on its business.

To proceed with its development plans and ultimately commercialization of FB-401, Forte will be required to conduct additional clinical trials. The FDA may require additional extensive preclinical studies. Forte cannot be certain of the timely completion or outcome of its preclinical testing and studies and cannot predict if the FDA or other regulatory authorities will accept its proposed clinical programs, including the design, dose level, and dose regimen, or if the outcome of its preclinical testing and studies will ultimately support the further development of its clinical programs.

If Forte is not able to obtain, or if there are delays in obtaining required regulatory approvals for its product candidate, Forte will not be able to commercialize, or will be delayed in commercializing, its product candidate, and its ability to generate revenue will be materially impaired.

Forte's product candidate and the activities associated with its development and commercialization, including its design, testing, manufacture, safety, efficacy, recordkeeping, labeling, storage, approval, advertising, promotion, sale, distribution, import and export are subject to comprehensive regulation by the FDA and other regulatory agencies in the United States and by comparable authorities in other countries. Before Forte can commercialize any of its product candidate, Forte must obtain marketing approval. Forte has not received approval to market any of its current and future product candidates from regulatory authorities in any jurisdiction and it is possible that none of its current and future product candidates will ever obtain regulatory approval. Forte, as a company, has no experience in filing and supporting the applications necessary to gain regulatory approvals and expect to rely on third-party CROs and/or regulatory consultants to assist it in this process. Securing regulatory approval requires the submission of extensive preclinical and clinical data and supporting information to the various regulatory authorities for each therapeutic indication to establish the drug candidate's safety, efficacy, purity, and potency.

Securing regulatory approval also requires the submission of information about the drug manufacturing process to, and inspection of manufacturing facilities by, the relevant regulatory authority. Forte's product candidate may not be effective, may be only moderately effective or may prove to have undesirable or unintended side effects, toxicities or other characteristics that may preclude it from obtaining marketing approval or prevent or limit commercial use.

The process of obtaining regulatory approvals, both in the United States and abroad, is expensive, may take many years if additional clinical trials are required, if approval is obtained at all, and can vary substantially based upon a variety of factors, including the type, complexity and novelty of the product candidate involved. Changes in marketing approval policies during the development period, changes in or the enactment of additional statutes or regulations, or changes in regulatory review for each submitted IND/BLA, or equivalent application types, may cause delays in the approval or rejection of an application. The FDA and comparable authorities in other countries have substantial discretion in the approval process and may refuse to accept any application or may decide that its data are insufficient for approval and require additional preclinical, clinical or other studies. Forte's product candidate could be delayed in receiving, or fail to receive, regulatory approval for many reasons, including the following:

- the FDA or comparable foreign regulatory authorities may disagree with the design, including study population, dose level, dose regimen, endpoint measure of efficacy, and bioanalytical assay methods, or implementation of its clinical trials;
- Forte may be unable to demonstrate to the satisfaction of the FDA or comparable foreign regulatory authorities that its product candidate is safe and effective for its proposed indication;
- the results of clinical trials may not meet the level of statistical significance required by the FDA or comparable foreign regulatory authorities for approval;

- Forte may be unable to demonstrate that a product candidate's clinical and other benefits outweigh its safety risks;
- the FDA or comparable foreign regulatory authorities may disagree with its interpretation of data from preclinical studies or clinical trials;
- the data collected from clinical trials of its product candidate may not be sufficient to support the submission of a BLA or other submission or to obtain regulatory approval in the United States or elsewhere;
- the FDA or comparable foreign regulatory authorities may fail to approve the manufacturing processes or facilities of third-party manufacturers with which Forte contracts for clinical and commercial supplies; and
- the approval policies or regulations of the FDA or comparable foreign regulatory authorities may significantly change in a manner rendering its clinical data insufficient for approval.

Of the large number of biopharmaceutical products in development, only a small percentage successfully complete the FDA or foreign regulatory approval processes and are commercialized. The lengthy approval process as well as the unpredictability of future clinical trial results may result in Forte failing to obtain regulatory approval to market its product candidate, which would significantly harm its business, results of operations and prospects.

Forte expects the novel nature of its product candidate to create further challenges in obtaining regulatory approval. As a result, its ability to develop product candidate and obtain regulatory approval may be significantly impacted.

The FDA may also require a panel of experts, referred to as an Advisory Committee, to deliberate on the adequacy of the safety and efficacy data to support approval. The opinion of the Advisory Committee, although not binding, may have a significant impact on its ability to obtain approval of any product candidate that Forte develops based on the completed clinical trials.

In addition, even if Forte were to obtain approval, regulatory authorities may approve its product candidate for fewer or more limited indications than Forte requests, may include limitations for use or contraindications that limit the suitable patient population, may not approve the price Forte intends to charge for its products, may grant approval contingent on the performance of costly post-marketing clinical trials or may approve a product candidate with a label that does not include the labeling claims necessary or desirable for the successful commercialization of that product candidate. Any of the foregoing scenarios could materially harm the commercial prospects for Forte's product candidate.

If Forte experiences delays in obtaining approval or if Forte fails to obtain approval of its product candidate, the commercial prospects for its product candidate may be harmed, and its ability to generate revenues will be materially impaired.

Forte's product candidate, FB-401, may cause undesirable side effects or have other properties that could delay or prevent their regulatory approval, limit the commercial profile of an approved label or result in significant negative consequences following marketing approval, if any.

Undesirable side effects caused by its product candidate could cause Forte to interrupt, delay or halt preclinical studies or could cause Forte or regulatory authorities to interrupt, delay or halt clinical trials and could result in a more restrictive clinical label or the delay or denial of regulatory approval by the FDA or other regulatory authorities for its product candidate. Results of its clinical studies or trials could reveal a high and unacceptable severity and prevalence of side effects. In such an event, its clinical studies or trials could be suspended or terminated, and the FDA or comparable foreign regulatory authorities could order Forte to cease

further development of or deny approval of its product candidate for any or all targeted indications. Additionally, its regulators could require significant modifications or amendments to ongoing clinical studies or trials that limit the available study population or lead to withdrawal of participation by already enrolled subjects. Any treatment-related side effects could affect patient recruitment or the ability of enrolled patients to complete the study or trial or result in potential product liability claims. Any of these occurrences may harm Forte's business, financial condition and prospects significantly.

Further, clinical studies or trials by their nature utilize a sample of the potential patient population. With a limited number of patients and limited duration of exposure, rare and severe side effects of its product candidate may only be uncovered with a significantly larger number of patients exposed to the product candidate. If its product candidate receives marketing approval and Forte or others identify undesirable side effects caused by such product candidate (or any other similar drugs) after such approval, a number of potentially significant negative consequences could result, including:

- regulatory authorities may withdraw or limit their approval of such product candidate;
- regulatory authorities may require the addition of labeling statements, such as a "boxed" warning or a contraindication;
- Forte may be required to create a medication guide outlining the risks of such side effects for distribution to patients;
- Forte may be required to change the way such product candidate is distributed or administered, conduct additional clinical trials or change the labeling of the product candidate;
- regulatory authorities may require a Risk Evaluation and Mitigation Strategy ("REMS"), plan to mitigate risks, which could include medication guides, physician communication plans, or elements to assure safe use, such as restricted distribution methods, patient registries and other risk minimization tools;
- Forte may be subject to regulatory investigations and government enforcement actions;
- Forte may decide to remove such product candidate from the marketplace;
- Forte could be sued and held liable for injury caused to individuals exposed to or using its product candidate; and
- Forte's reputation may suffer.

Forte believes that any of these events could prevent it from achieving or maintaining market acceptance of the affected product candidate and could substantially increase the costs of commercializing its product candidate, if approved, and significantly impact its ability to successfully commercialize its product candidate and generate revenues.

Even if Forte receives regulatory approval of any product candidate, Forte will be subject to ongoing regulatory compliance obligations and continued regulatory review, which may result in significant additional expense. Additionally, if Forte fails to comply with regulatory requirements or experience unanticipated problems with its product candidate, if approved, Forte could be subject to labeling and other restrictions, market withdrawal, and penalties.

If FB-401 is approved, it will be subject to ongoing regulatory requirements for manufacturing, labeling, packaging, storage, distribution, advertising, promotion, sampling, record-keeping, export, import, conduct of post-marketing studies and submission of safety, efficacy and other post-market information, including both federal and state requirements in the United States and requirements of comparable foreign regulatory authorities. In addition, Forte will be subject to continued compliance with cGMP and GCP requirements for any clinical trials that Forte conduct post-approval.

Manufacturers and manufacturers' facilities are required to comply with extensive FDA, and comparable foreign regulatory authority requirements, including ensuring that quality control and manufacturing procedures conform to cGMP regulations. As such, Forte and its contract manufacturers will be subject to continual review and inspections to assess compliance with cGMP and adherence to commitments made in any NDA, other marketing application, and previous responses to inspection observations. Accordingly, Forte and others with whom Forte works must continue to expend time, money, and effort in all areas of regulatory compliance, including manufacturing, production and quality control.

The FDA has significant post-marketing authority, including, for example, the authority to require labeling changes based on new safety information and to require post-marketing studies or clinical trials to evaluate serious safety risks related to the use of a drug. Any regulatory approvals that Forte receive for its product candidate may be subject to limitations on the approved indicated uses for which the product may be marketed or to the conditions of approval, or contain requirements for potentially costly post-marketing testing, including Phase 4 clinical trials and surveillance to monitor the safety and efficacy of the product candidate. The FDA may also require a REMS program as a condition of approval of its product candidate, which could entail requirements for long-term patient follow-up, a medication guide, physician communication plans or additional elements to ensure safe use, such as restricted distribution methods, patient registries and other risk minimization tools. In addition, if the FDA or a comparable foreign regulatory authority approves its product candidate, Forte will have to comply with requirements including submissions of safety and other post-marketing information and reports and registration.

The FDA may impose consent decrees or withdraw approval if compliance with regulatory requirements and standards is not maintained or if problems occur after the product reaches the market. Later discovery of previously unknown problems with its product candidate, including adverse events of unanticipated severity or frequency, or with its third-party manufacturers or manufacturing processes, or failure to comply with regulatory requirements, may result in revisions to the approved labeling to add new safety information; imposition of post-market studies or clinical trials to assess new safety risks; or imposition of distribution restrictions or other restrictions under a REMS program. Other potential consequences include, among other things:

- restrictions on the marketing or manufacturing of its products, withdrawal of the product from the market or voluntary or mandatory product recalls;
- fines, warning or untitled enforcement letters or holds on clinical trials;
- refusal by the FDA to approve pending applications or supplements to approved applications filed by Forte or suspension or revocation of license approvals;
- product seizure or detention or refusal to permit the import or export of its product candidate; and
- injunctions or the imposition of civil or criminal penalties.

The FDA strictly regulates marketing, labeling, advertising, and promotion of products that are placed on the market. Products may be promoted only for the approved indications and in accordance with the provisions of the approved label or other regulatory marketing pathway. The FDA and other agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses and a company that is found to have improperly promoted off-label uses may be subject to significant liability. However, physicians may, in their independent medical judgment, prescribe legally available products for off-label uses. The FDA does not regulate the behavior of physicians in their choice of treatments but the FDA does restrict manufacturer's communications on the subject of off-label use of their products. In addition, the policies of the FDA and of other regulatory authorities may change and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of its product candidate. If Forte is slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if Forte is not able to maintain regulatory compliance, Forte may lose any marketing approval that Forte may have obtained which would adversely affect its business, prospects and ability to achieve or sustain profitability.

The policies of the FDA and of other regulatory authorities may change and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of its product candidate. Forte also cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative or executive action, either in the United States or abroad. For example, certain policies of the current administration may impact its business and industry. Namely, the current administration has taken several executive actions, including the issuance of a number of executive orders, that could impose significant burdens on, or otherwise materially delay, the FDA's ability to engage in routine regulatory and oversight activities, such as implementing statutes through rulemaking, issuance of guidance and review and approval of marketing applications. It is difficult to predict how these executive actions, including any executive orders, will be implemented, and the extent to which they will impact the FDA's ability to exercise its regulatory authority. If these executive actions impose constraints on FDA's ability to engage in oversight and implementation activities in the normal course, its business may be negatively impacted. In addition, if Forte is slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if Forte is not able to maintain regulatory compliance, Forte may lose any marketing approval that Forte may have obtained, and Forte may not achieve or sustain profitability.

Non-compliance by Forte or any future collaborator with regulatory requirements, including safety monitoring or pharmacovigilance requirements, can also result in significant financial penalties.

Healthcare insurance coverage and reimbursement may be limited or unavailable in certain market segments for its product candidate, if approved, which could make it difficult for Forte to sell any product candidate or therapies profitably.

The success of its product candidate depends on the availability of adequate coverage and reimbursement from third-party payors. In addition, because its product candidate, FB-401, represents a new approach to the treatment of the disease it targets, Forte cannot be sure that coverage and reimbursement will be available for, or accurately estimate the potential revenue from, its product candidate or assure that coverage and reimbursement will be available for any product that Forte may develop.

Patients who are provided medical treatment for their conditions generally rely on third-party payors to reimburse all or part of the costs associated with their treatment. Adequate coverage and reimbursement from governmental healthcare programs, such as Medicare and Medicaid, and commercial payors are critical to new product acceptance.

Government authorities and third-party payors, such as private health insurers and health maintenance organizations, decide which drugs and treatments they will cover and the amount of reimbursement. Coverage and reimbursement by a third-party payor may depend upon a number of factors, including the third-party payor's determination that use of a product is:

- a covered benefit under its health plan;
- safe, effective and medically necessary;
- appropriate for the specific patient;
- cost-effective; and
- neither experimental nor investigational.

In the United States, no uniform policy of coverage and reimbursement for products exists among third-party payors. As a result, obtaining coverage and reimbursement approval of a product from a government or other third-party payor is a time-consuming and costly process that could require Forte to provide to each payor supporting scientific, clinical and cost-effectiveness data for the use of its products on a payor-by-payor basis, with no assurance that coverage and adequate reimbursement will be obtained. Even if Forte obtains coverage for

a given product, the resulting reimbursement payment rates might not be adequate for Forte to achieve or sustain profitability or may require co-payments that patients find unacceptably high. Additionally, third-party payors may not cover, or provide adequate reimbursement for, long-term follow-up evaluations required following the use of product candidate. Patients are unlikely to use its product candidate unless coverage is provided and reimbursement is adequate to cover a significant portion of the cost of its product candidate. Because its product candidate may have a higher cost of goods than conventional therapies, and may require long-term follow-up evaluations, the risk that coverage and reimbursement rates may be inadequate for Forte to achieve profitability may be greater. There is significant uncertainty related to insurance coverage and reimbursement of newly approved products. It is difficult to predict at this time what third-party payors will decide with respect to the coverage and reimbursement for its product candidate.

Payment methodologies may be subject to changes in healthcare legislation and regulatory initiatives. Additional state and federal healthcare reform measures are expected to be adopted in the future, any of which could limit the amounts that federal and state governments will pay for healthcare products and services, which could result in reduced demand for certain pharmaceutical products or additional pricing pressures.

Moreover, increasing efforts by governmental and third-party payors in the United States and abroad to cap or reduce healthcare costs may cause such organizations to limit both coverage and the level of reimbursement for newly approved products and, as a result, they may not cover or provide adequate payment for its product candidate. There has been increasing legislative and enforcement interest in the United States with respect to specialty drug pricing practices. Specifically, there have been several U.S. Congressional inquiries and federal and state legislation designed to, among other things, bring more transparency to drug pricing, reduce the cost of prescription drugs under Medicare, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for drugs. Forte expects to experience pricing pressures in connection with the sale of any of its product candidates due to the trend toward managed healthcare, the increasing influence of health maintenance organizations, cost containment initiatives and additional legislative changes.

Ongoing healthcare legislative and regulatory reform measures may have a material adverse effect on Forte's business and results of operations.

Changes in regulations, statutes or the interpretation of existing regulations could impact Forte's business in the future by requiring, for example: (i) changes to its manufacturing arrangements; (ii) additions or modifications to product labeling; (iii) the recall or discontinuation of its products; or (iv) additional record-keeping requirements. If any such changes were to be imposed, they could adversely affect the operation of its business.

In the United States, there have been and continue to be a number of legislative initiatives to contain healthcare costs. For example, in March 2010, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010 (collectively, the "ACA"), was passed, which substantially changed the way healthcare is financed by both governmental and private insurers, and significantly impacted the U.S. pharmaceutical industry. There remain judicial and Congressional challenges to certain aspects of the ACA, as well as efforts by the Trump administration to repeal or replace certain aspects of the ACA. On December 14, 2018, a Texas U.S. District Court Judge ruled that the ACA is unconstitutional in its entirety because the "individual mandate" was repealed by Congress as part of the Tax Cuts and Jobs Act of 2017. Additionally, on December 18, 2019, the U.S. Court of Appeals for the 5th Circuit upheld the District Court ruling that the individual mandate was unconstitutional and remanded the case back to the District Court to determine whether the remaining provisions of the ACA are invalid as well. On March 2, 2020, the United States Supreme Court granted the petitions for writs of certiorari to review this case, and has allotted one hour for oral arguments, which are expected to occur in the fall. It is unclear how such litigation and other efforts to repeal and replace the ACA will impact the ACA and Forte's business. Moreover, there has been heightened governmental scrutiny recently over the manner in which drug manufacturers set prices for their marketed products, which has resulted in several Congressional inquiries and proposed and enacted federal and state legislation designed to, among other things, bring more transparency to product pricing, review the relationship between pricing and

manufacturer patient programs, and reform government program reimbursement methodologies for drug products. At the state level, legislatures have increasingly passed legislation and implemented regulations designed to control pharmaceutical and biological product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures, and, in some cases, designed to encourage importation from other countries and bulk purchasing.

Legislative and regulatory measures have been enacted and proposed that may expand post-approval requirements and restrict sales and promotional activities for biotechnology products. Forte cannot be sure whether additional legislative changes will be enacted, or whether FDA regulations, guidance or interpretations will be changed, or what the impact of such changes on the marketing approvals of its product candidates, if any, may be. In addition, increased scrutiny by Congress of the FDA's approval process may significantly delay or prevent marketing approval, as well as subject Forte to more stringent product labeling and post-marketing testing and other requirements.

Forte expects that the ACA, as well as other healthcare reform measures that may be adopted in the future, may result in more rigorous coverage criteria and in additional downward pressure on the price that Forte receives for any approved product. Any reduction in reimbursement from Medicare or other government programs may result in a similar reduction in payments from private payors. The implementation of cost containment measures or other healthcare reforms may prevent Forte from being able to generate revenue, attain profitability or commercialize its current and future product candidates.

Forte's business activities may be subject to the FCPA and similar anti-bribery and anti-corruption laws of other countries in which Forte operate, as well as U.S. and certain foreign export controls, trade sanctions, and import laws and regulations. Compliance with these legal requirements could limit its ability to compete in foreign markets and subject it to liability if Forte violates them.

If Forte expand its operations outside of the United States, Forte must dedicate additional resources to comply with numerous laws and regulations in each jurisdiction in which Forte plans to operate. The FCPA prohibits any U.S. individual or business from paying, offering, authorizing payment or offering of anything of value, directly or indirectly, to any foreign official, political party or candidate for the purpose of influencing any act or decision of the foreign entity in order to assist the individual or business in obtaining or retaining business. The FCPA also obligates companies whose securities are listed in the United States to comply with certain accounting provisions requiring the company to maintain books and records that accurately and fairly reflect all transactions of the corporation, including international subsidiaries, and to devise and maintain an adequate system of internal accounting controls for international operations.

Compliance with the FCPA is expensive and difficult, particularly in countries in which corruption is a recognized problem. In addition, the FCPA presents particular challenges in the pharmaceutical industry, because, in many countries, hospitals are operated by the government, and doctors and other hospital employees are considered foreign officials. Certain payments to hospitals in connection with clinical trials and other work have been deemed to be improper payments to government officials and have led to FCPA enforcement actions.

Various laws, regulations and executive orders also restrict the use and dissemination outside of the United States, or the sharing with certain non-U.S. nationals, of information classified for national security purposes, as well as certain products and technical data relating to those products. If Forte expands its presence outside of the United States, it will require Forte to dedicate additional resources to comply with these laws, and these laws may preclude Forte from developing, manufacturing, or selling certain current and future product candidates, if approved, outside of the United States, which could limit its growth potential and increase its development costs.

The failure to comply with laws governing international business practices may result in substantial civil and criminal penalties and suspension or debarment from government contracting. The Securities and Exchange Commission, or SEC, also may suspend or bar issuers from trading securities on U.S. exchanges for violations of the FCPA's accounting provisions.

Additionally, U.S. and foreign anti-corruption, anti-money laundering, export control, sanctions, and other trade laws and regulations, which are collectively referred to as Trade Laws, prohibit companies and their employees, agents, clinical research organizations, legal counsel, accountants, consultants, contractors, and other partners from authorizing, promising, offering, providing, soliciting, or receiving directly or indirectly, corrupt or improper payments or anything else of value to or from recipients in the public or private sector. Violations of Trade Laws can result in substantial criminal fines and civil penalties, imprisonment, the loss of trade privileges, debarment, tax reassessments, breach of contract and fraud litigation, reputational harm, and other consequences. Forte has direct or indirect interactions with officials and employees of government agencies or government-affiliated hospitals, universities, and other organizations. Forte also expects its non-U.S. activities to increase in time. Forte plans to engage third parties for clinical trials and/or to obtain necessary permits, licenses, patent registrations, and other regulatory approvals and Forte can be held liable for the corrupt or other illegal activities of its personnel, agents, or partners, even if Forte do not explicitly authorize or have prior knowledge of such activities.

Compliance with applicable regulatory requirements regarding the export of any of Forte's current and future approved products may create delays in the introduction of its products in international markets or, in some cases, prevent the export of its products to some countries altogether. Furthermore, U.S. export control laws and economic sanctions prohibit the shipment of certain products and services to countries, governments, and persons targeted by U.S. sanctions. If Forte fails to comply with export and import regulations and such economic sanctions, penalties could be imposed, including fines and/or denial of certain export privileges. Moreover, any new export or import restrictions, new legislation or shifting approaches in the enforcement or scope of existing regulations, or in the countries, persons, or products targeted by such regulations, could result in decreased use of its products by, or in its decreased ability to export its approved products to, existing or potential customers with international operations. Any decreased use of its approved products or limitation on its ability to export or sell its products would likely adversely affect Forte's business.

Risks related to Forte's intellectual property

If Forte is unable to obtain and maintain patent protection for any product candidate Forte develops, its competitors could develop and commercialize products or technology similar or identical to Forte's, and its ability to successfully commercialize any product candidate Forte may develop, and its technology, may be adversely affected.

Forte's success depends in large part on its ability to obtain and maintain patent protection in the United States and other countries with respect to its product candidate and other technologies Forte may develop. Forte seeks to protect its proprietary position by filing patent applications in the United States and abroad relating to FB-401, as well as other technologies that are important to its business. Given that the development of its technology and product candidate is at an early stage, its intellectual property portfolio with respect to certain aspects of its technology and product candidate is also at an early stage. Forte has filed or intends to file patent applications on these aspects of its technology and its product candidate; however, there can be no assurance that any such patent applications will issue as granted patents. Furthermore, in some cases, Forte has only filed provisional patent applications on certain aspects of its technology and product candidate and each of these provisional patent applications is not eligible to become an issued patent until, among other things, Forte files a non-provisional patent application within 12 months of the filing date of the applicable provisional patent application. Any failure to file a non-provisional patent application within this timeline could cause Forte to lose the ability to obtain patent protection for the inventions disclosed in the associated provisional patent applications.

Composition of matter patents for biological and pharmaceutical products are generally considered to be the strongest form of intellectual property protection for those types of products, as such patents provide protection without regard to any method of use. Forte cannot be certain, however, that the claims in its pending patent applications covering the composition of matter of its product candidate, FB-401, will be considered patentable

by the United States Patent and Trademark Office ("USPTO"), or by patent offices in foreign countries, or that the claims in any of its issued patents will be considered valid and enforceable by courts in the United States or foreign countries. In particular, Forte cannot be certain that composition claims relating to microorganisms, including species of gram negative bacteria such as *Roseomonas mucosa*, will be considered patentable by the USPTO, or by patent offices in foreign countries, or that the claims in any of its issued patents will be considered valid and enforceable by courts in the United States or foreign countries.

Furthermore, in some cases, Forte may not be able to obtain issued claims covering compositions of matter relating to its product candidate, as well as other technologies that are important to its business, and instead may need to rely on filing patent applications with claims covering a method of use and/or method of manufacture. Method of use patents protect the use of a product for the specified method. This type of patent does not prevent a competitor from making and marketing a product that is identical to Forte's product for an indication that is outside the scope of the patented method. Moreover, even if competitors do not actively promote their products for its targeted indications, physicians may prescribe these products "off-label" for those uses that are covered by its method of use patents. Although off-label prescriptions may infringe or contribute to the infringement of method of use patents, the practice is common and such infringement is difficult to prevent or prosecute. There can be no assurance that any such patent applications will issue as granted patents, and even if they do issue, such patent claims may be insufficient to prevent third parties, such as Forte's competitors, from utilizing its technology. Any failure to obtain or maintain patent protection with respect to its product candidate could have a material adverse effect on Forte's business, financial condition, results of operations, and prospects.

If any of its owned patent applications do not issue as patents in any jurisdiction, Forte may not be able to compete effectively.

Changes in either the patent laws or their interpretation in the United States and other countries may diminish its ability to protect its inventions, obtain, maintain, and enforce its intellectual property rights and, more generally, could affect the value of its intellectual property or narrow the scope of its owned or licensed patents. With respect to owned intellectual property, Forte cannot predict whether the patent applications Forte is currently pursuing will issue as patents in any particular jurisdiction or whether the claims of any issued patents will provide sufficient protection from competitors or other third parties.

The patent prosecution process is expensive, time-consuming, and complex, and Forte may not be able to file, prosecute, maintain, enforce, or license all necessary or desirable patents and patent applications at a reasonable cost or in a timely manner. It is also possible that Forte will fail to identify patentable aspects of its research and development output in time to obtain patent protection. Although Forte enters into non-disclosure and confidentiality agreements with parties who have access to confidential or patentable aspects of its research and development output, such as its employees, corporate collaborators, outside scientific collaborators, CROs, contract manufacturers, consultants, advisors and other third parties, any of these parties may breach such agreements and disclose such output before a patent application is filed, thereby jeopardizing its ability to seek patent protection. In addition, Forte's ability to obtain and maintain valid and enforceable patents depends on whether the differences between its inventions and the prior art allow its inventions to be patentable over the prior art. Furthermore, publications of discoveries in the scientific literature often lag behind the actual discoveries, and patent applications in the United States and other jurisdictions are typically not published until 18 months after filing, or in some cases not at all. Therefore, Forte cannot be certain that it was the first to make the inventions claimed in any of its owned or pending patent applications, or that Forte was the first to file for patent protection of such inventions.

If the scope of any patent protection Forte obtains is not sufficiently broad, or if Forte loses any of its patent protection, its ability to prevent its competitors from commercializing similar or identical technology and product candidate would be adversely affected.

The patent position of healthcare companies generally is highly uncertain, involves complex legal and factual questions, and has been the subject of much litigation in recent years. As a result, the issuance, scope,

validity, enforceability, and commercial value of Forte's patent rights are highly uncertain. Forte's owned pending and future patent applications may not result in patents being issued which protect its product candidate, or other technologies or which effectively prevent others from commercializing competitive technologies and product candidates.

No consistent policy regarding the scope of claims allowable in patents in the biotechnology field has emerged in the United States. The patent situation outside of the United States is even more uncertain. Changes in either the patent laws or their interpretation in the United States and other countries may diminish Forte's ability to protect its inventions and enforce its intellectual property rights, and more generally could affect the value of its intellectual property. In particular, its ability to stop third parties from making, using, selling, offering to sell, or importing products that infringe its intellectual property will depend in part on its success in obtaining and enforcing patent claims that cover its technology, inventions and improvements. With respect to company-owned intellectual property, Forte cannot be sure that patents will be granted with respect to any of its pending patent applications or with respect to any patent applications filed by it in the future, nor can Forte be sure that any of its existing patents or any patents that may be granted to Forte in the future will be commercially useful in protecting its products and the methods used to manufacture those products. Moreover, even its issued patents do not guarantee Forte the right to practice its technology in relation to the commercialization of its products. The area of patent and other intellectual property rights in biotechnology is an evolving one with many risks and uncertainties, and third parties may have blocking patents that could be used to prevent Forte from commercializing its patented product candidate and practicing its proprietary technology. Forte's issued patents and those that may issue in the future may be challenged, invalidated, or circumvented, which could limit its ability to stop competitors from marketing related products or limit the length of the term of patent protection that Forte may have for its product candidate. In addition, the rights granted under any issued patents may not provide Forte with protection or competitive advantages against competitors with similar technology. Furthermore, its competitors may independently develop similar technologies. For these reasons, Forte may have competition for its product candidate. Moreover, because of the extensive time required for development, testing and regulatory review of a potential product, it is possible that, before any particular product candidate can be commercialized, any related patent may expire or remain in force for only a short period following commercialization, thereby reducing any advantage of the patent.

Moreover, the coverage claimed in a patent application can be significantly reduced before the patent is issued, and its scope can be reinterpreted after issuance. Even if patent applications Forte own issue as patents, they may not issue in a form that will provide Forte with any meaningful protection, prevent competitors or other third parties from competing with us, or otherwise provide Forte with any competitive advantage. Any patents that Forte own may be challenged, narrowed, circumvented, or invalidated by third parties. Consequently, Forte do not know whether its product candidate or other technologies will be protectable or remain protected by valid and enforceable patents. Forte's competitors or other third parties may be able to circumvent its patents by developing similar or alternative technologies or products in a non-infringing manner which could materially adversely affect its business, financial condition, results of operations and prospects.

The issuance of a patent is not conclusive as to its inventorship, scope, validity, or enforceability, and patents that Forte own may be challenged in the courts or patent offices in the United States and abroad. Forte may be subject to a third party preissuance submission of prior art to the USPTO or to foreign patent authorities or become involved in opposition, derivation, revocation, reexamination, post-grant and *inter partes* review, or interference proceedings or other similar proceedings challenging its owned patent rights. An adverse determination in any such submission, proceeding or litigation could reduce the scope of, or invalidate or render unenforceable, Forte's owned patent rights, allow third parties to commercialize Forte's product candidate or other technologies, and compete directly with Forte, without payment to Forte, or result in Forte's inability to manufacture or commercialize products without infringing third-party patent rights. Moreover, Forte may have to participate in interference proceedings declared by the USPTO to determine priority of invention or in post-grant challenge proceedings, such as oppositions in a foreign patent office, that challenge its priority of invention or other features of patentability with respect to its owned patents and patent applications. Such challenges may

result in loss of patent rights, loss of exclusivity, or in patent claims being narrowed, invalidated, or held unenforceable, which could limit its ability to stop others from using or commercializing similar or identical technology and products, or limit the duration of the patent protection of its product candidate and other technologies. Such proceedings also may result in substantial cost and require significant time from its scientists and management, even if the eventual outcome is favorable to us.

In addition, given the amount of time required for the development, testing, and regulatory review of new product candidate, patents protecting such product candidate might expire before or shortly after such product candidate are commercialized. As a result, its intellectual property may not provide Forte with sufficient rights to exclude others from commercializing products similar or identical to ours.

Forte may in the future co-own patent rights relating to future product candidates with third parties. Forte may need the cooperation of any such co-owners of its patent rights in order to enforce such patent rights against third parties, and such cooperation may not be provided to us. Any of the foregoing could have a material adverse effect on its competitive position, business, financial conditions, results of operations, and prospects.

Forte's rights to develop and commercialize its product candidate may be subject, in part, to the terms and conditions of future licenses granted to it by others.

Forte may rely upon licenses to certain patent rights and proprietary technology from third parties that are important or necessary to the development of its product candidate. Patent rights that Forte in-license in the future may be subject to a reservation of rights by one or more third parties. As a result, any such third parties may have certain rights to such intellectual property.

In addition, subject to the terms of any such license agreements, Forte may not have the right to control the preparation, filing, prosecution and maintenance, and Forte may not have the right to control the enforcement, and defense of patents and patent applications covering the technology that Forte licenses from third parties. Forte cannot be certain that its in-licensed patent applications (and any patents issuing therefrom) that are controlled by its licensors will be prepared, filed, prosecuted, maintained, enforced, and defended in a manner consistent with the best interests of its business. If its licensors fail to prosecute, maintain, enforce, and defend such patents rights, or lose rights to those patent applications (or any patents issuing therefrom), the rights Forte has licensed may be reduced or eliminated, its right to develop and commercialize any of its product candidates that are subject of such licensed rights could be adversely affected, and Forte may not be able to prevent competitors from making, using and selling competing products. Moreover, Forte cannot be certain that such activities by its potential future licensors will be conducted in compliance with applicable laws and regulations or will result in valid and enforceable patents or other intellectual property rights. In addition, even where Forte may have the right to control patent prosecution of patents and patent applications that Forte may license to and from third parties, Forte may still be adversely affected or prejudiced by actions or inactions of its potential future licensees, licensors and their counsel that took place prior to the date of assumption of control over patent prosecution.

Forte may not be able to protect its intellectual property and proprietary rights throughout the world.

Filing, prosecuting and defending patents on Forte's product candidate and other technologies in all countries throughout the world would be prohibitively expensive, and the laws of foreign countries may not protect its rights to the same extent as the laws of the United States. Consequently, Forte may not be able to prevent third parties from practicing its inventions in all countries outside the United States, or from selling or importing products made using its inventions in and into the United States or other jurisdictions. Competitors may use its technologies in jurisdictions where Forte has not obtained patent protection to develop their own products and, further, may export otherwise infringing products to territories where Forte has patent protection but enforcement is not as strong as that in the United States. These products may compete with Forte's products, and Forte's patents or other intellectual property rights may not be effective or sufficient to prevent them from competing.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents, trade secrets, and other intellectual property protection, particularly those relating to biotechnology products, which could make it difficult for Forte to stop the infringement of its patents or marketing of competing products in violation of its intellectual property and proprietary rights generally. Proceedings to enforce its intellectual property and proprietary rights in foreign jurisdictions could result in substantial costs and divert its efforts and attention from other aspects of its business, could put its patents at risk of being invalidated or interpreted narrowly, could put its patent applications at risk of not issuing, and could provoke third parties to assert claims against us. Forte may not prevail in any lawsuits that it initiates, and the damages or other remedies awarded, if any, may not be commercially meaningful. Accordingly, its efforts to enforce its intellectual property and proprietary rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that Forte develops or licenses.

Many countries have compulsory licensing laws under which a patent owner may be compelled to grant licenses to third parties. In addition, many countries limit the enforceability of patents against government agencies or government contractors. In these countries, the patent owner may have limited remedies, which could materially diminish the value of such patent. If Forte is forced to grant a license to third parties with respect to any patents relevant to its business, its competitive position may be impaired, and its business, financial condition, results of operations, and prospects may be adversely affected.

Obtaining and maintaining Forte's patent protection depends on compliance with various procedural, document submission, fee payment, and other requirements imposed by government patent agencies, and its patent protection could be reduced or eliminated for non-compliance with these requirements.

Periodic maintenance fees, renewal fees, annuity fees, and various other government fees on patents and applications will be due to be paid to the USPTO and various government patent agencies outside of the United States over the lifetime of its owned patents and applications. The USPTO and various non-U.S. government agencies require compliance with several procedural, documentary, fee payment, and other similar provisions during the patent application process. In some cases, an inadvertent lapse can be cured by payment of a late fee or by other means in accordance with the applicable rules. There are situations, however, in which non-compliance can result in abandonment or lapse of the patent or patent application, resulting in a partial or complete loss of patent rights in the relevant jurisdiction. In such an event, potential competitors might be able to enter the market with similar or identical products or technology, which could have a material adverse effect on Forte's business, financial condition, results of operations, and prospects.

Changes in U.S. patent law could diminish the value of patents in general, thereby impairing Forte's ability to protect its products.

Changes in either the patent laws or interpretation of the patent laws in the United States could increase the uncertainties and costs surrounding the prosecution of patent applications and the enforcement or defense of issued patents. Assuming that other requirements for patentability are met, prior to March 2013, in the United States, the first to invent the claimed invention was entitled to the patent, while outside the United States, the first to file a patent application was entitled to the patent. After March 2013, under the Leahy-Smith America Invents Act, or the America Invents Act, enacted in September 2011, the United States transitioned to a first inventor to file system in which, assuming that other requirements for patentability are met, the first inventor to file a patent application will be entitled to the patent on an invention regardless of whether a third party was the first to invent the claimed invention. A third party that files a patent application in the USPTO after March 2013, but before Forte could therefore be awarded a patent covering an invention of ours even if Forte had made the invention before it was made by such third party. This will require Forte to be cognizant going forward of the time from invention to filing of a patent application. Since patent applications in the United States and most other countries are confidential for a period of time after filing or until issuance, Forte cannot be certain that it was the first to file any patent application related to its product candidates or other technologies.

The America Invents Act also includes a number of significant changes that affect the way patent applications will be prosecuted and also may affect patent litigation. These include allowing third party submission of prior art to the USPTO during patent prosecution and additional procedures to attack the validity of a patent by USPTO administered post-grant proceedings, including post-grant review, *inter partes* review, and derivation proceedings. Because of a lower evidentiary standard in USPTO proceedings compared to the evidentiary standard in United States federal courts necessary to invalidate a patent claim, a third party could potentially provide evidence in a USPTO proceeding sufficient for the USPTO to hold a claim invalid even though the same evidence would be insufficient to invalidate the claim if first presented in a district court action. Accordingly, a third party may attempt to use the USPTO procedures to invalidate Forte's patent claims that would not have been invalidated if first challenged by the third party as a defendant in a district court action. Therefore, the America Invents Act and its implementation could increase the uncertainties and costs surrounding the prosecution of Forte's owned patent applications and the enforcement or defense of its owned issued patents, all of which could have a material adverse effect on Forte's business, financial condition, results of operations, and prospects.

In addition, the patent positions of companies in the development and commercialization of biologics and pharmaceuticals are particularly uncertain. Recent U.S. Supreme Court rulings have narrowed the scope of patent protection available in certain circumstances and weakened the rights of patent owners in certain situations. This combination of events has created uncertainty with respect to the validity and enforceability of patents, once obtained. Depending on future actions by the U.S. Congress, the federal courts, and the USPTO, the laws and regulations governing patents could change in unpredictable ways that could have a material adverse effect on Forte's existing patent portfolio and its ability to protect and enforce its intellectual property in the future.

Issued patents covering Forte's product candidate could be found invalid or unenforceable if challenged in court or before administrative bodies in the United States or abroad.

In patent litigation in the United States, defendant counterclaims alleging invalidity or unenforceability are commonplace. Grounds for a validity challenge could be an alleged failure to meet any of several statutory requirements, including lack of novelty, obviousness or non-enablement. Grounds for an unenforceability assertion could be an allegation that someone connected with prosecution of the patent withheld relevant information from the USPTO, or made a misleading statement, during prosecution. Third parties may raise claims challenging the validity or enforceability of Forte's owned patents before administrative bodies in the United States or abroad, even outside the context of litigation. Such mechanisms include re-examination, post-grant review, *inter partes* review, interference proceedings, derivation proceedings, and equivalent proceedings in foreign jurisdictions (e.g., opposition proceedings). Such proceedings could result in the revocation of, cancellation of, or amendment to Forte's patents in such a way that they no longer cover its product candidate or other technologies. The outcome following legal assertions of invalidity and unenforceability is unpredictable. With respect to the validity question, for example, Forte cannot be certain that there is no invalidating prior art, of which Forte and the patent examiner were unaware during prosecution. If a third party were to prevail on a legal assertion of invalidity or unenforceability, Forte would lose at least part, and perhaps all, of the patent protection on its product candidate or other technologies. Such a loss of patent protection would have a material adverse impact on Forte's business, financial condition, results of operations, and prospects.

If Forte does not obtain patent term extension and/or data exclusivity for any product candidate that Forte may develop, its business may be materially harmed.

Depending upon the timing, duration and specifics of any FDA marketing approval of any product candidate Forte may develop, one or more of its owned U.S. patents may be eligible for limited patent term extension under the Hatch-Waxman Act. The Hatch-Waxman Act permits a patent term extension of up to five years as compensation for patent term lost during the FDA regulatory review process. A patent term extension cannot extend the remaining term of a patent beyond a total of 14 years from the date of product approval, only one patent may be extended and only those claims covering the approved drug, a method for using it, or a method for

manufacturing it may be extended. Similar extensions as compensation for patent term lost during regulatory review processes are also available in certain foreign countries and territories, such as in Europe under a Supplementary Patent Certificate. However, Forte may not be granted an extension in the United States and/or foreign countries and territories because of, for example, failing to exercise due diligence during the testing phase or regulatory review process, failing to apply within applicable deadlines, failing to apply prior to expiration of relevant patents, or otherwise failing to satisfy applicable requirements. Moreover, the applicable time period or the scope of patent protection afforded could be less than Forte requests. If Forte is unable to obtain patent term extension or the term of any such extension is shorter than what Forte requests, its competitors may obtain approval of competing products following its patent expiration, and its business, financial condition, results of operations and prospects could be materially harmed.

Forte may be subject to claims challenging the inventorship of its patents and other intellectual property.

Forte may be subject to claims that former employees, collaborators or other third parties have an interest in its owned patent rights, trade secrets, or other intellectual property as an inventor or co-inventor. For example, Forte may have inventorship disputes arise from conflicting obligations of employees, consultants or others who are involved in developing its product candidate or other technologies. Litigation may be necessary to defend against these and other claims challenging inventorship or its ownership of its owned patent rights, trade secrets or other intellectual property. If Forte fails in defending any such claims, in addition to paying monetary damages, Forte may lose valuable intellectual property rights, such as exclusive ownership of, or right to use, intellectual property that is important to its product candidate and other technologies. Even if Forte is successful in defending against such claims, litigation could result in substantial costs and be a distraction to management and other employees. Any of the foregoing could have a material adverse effect on Forte's business, financial condition, results of operations and prospects.

If Forte is unable to protect the confidentiality of its trade secrets, its business and competitive position would be harmed.

In addition to seeking patents for its product candidate and other technologies, Forte also relies on trade secrets and confidentiality agreements to protect its unpatented know-how, technology, and other proprietary information and to maintain its competitive position. Trade secrets and know-how can be difficult to protect. Forte expects its trade secrets and know-how to over time be disseminated within the industry through independent development, the publication of journal articles describing the methodology, and the movement of personnel from academic to industry scientific positions.

Forte currently, and may continue in the future continue to, relies on third parties to assist it in developing and manufacturing its product candidate. Accordingly, Forte must, at times, share know-how and trade secrets with them. Forte may in the future also enter into research and development collaborations with third parties that may require it to share know-how and trade secrets under the terms of its research and development partnerships or similar agreements. Forte seeks to protect its know-how, trade secrets and other proprietary technology, in part, by entering into non-disclosure and confidentiality agreements, and including in its vendor and service agreements terms protecting its confidential information, know-how and trade secrets, with parties who have access to such information, such as its employees, scientific collaborators, CROs, contract manufacturers, consultants, advisors and other third parties. Forte also enters into confidentiality and invention or patent assignment agreements with its employees and consultants as well as trains its employees not to bring or use proprietary information or technology from former employers to Forte or in their work, and Forte reminds former employees when they leave their employment of their confidentiality obligations. However, Forte cannot guarantee that Forte has entered into such agreements with each party that may have or have had access to its trade secrets or proprietary technology and processes. Forte also seeks to preserve the integrity and confidentiality of its data and other confidential information by maintaining physical security of its premises and physical and electronic security of its information technology systems.

Despite Forte's efforts, any of the aforementioned parties may breach the agreements and disclose Forte's proprietary information, including its trade secrets, or there may be a lapses or failures in its physical and electronic security systems which lead to its proprietary information being disclosed, and Forte may not be able to obtain adequate remedies in the event of any such breaches. Monitoring unauthorized uses and disclosures is difficult, and Forte does not know whether the steps it has taken to protect its proprietary technologies will be effective. If any of its scientific advisors, employees, contractors and consultants who are parties to these agreements breaches or violates the terms of any of these agreements, Forte may not have adequate remedies for any such breach or violation, and Forte could lose its trade secrets as a result. Moreover, if confidential information that is licensed or disclosed to Forte by its partners, collaborators, or others is inadvertently disclosed or subject to a breach or violation, Forte may be exposed to liability to the owner of that confidential information. Enforcing a claim that a party illegally disclosed or misappropriated a trade secret is difficult, expensive, and time-consuming, and the outcome is unpredictable. In addition, some courts inside and outside the United States are less willing or unwilling to protect trade secrets. If any of its trade secrets were to be lawfully obtained or independently developed by a competitor or other third party, Forte would have no right to prevent them from using that technology or information to compete with us. If any of its trade secrets were to be disclosed to or independently developed by a competitor or other third party, Forte's competitive position would be materially and adversely harmed.

Forte may not be successful in obtaining, through acquisitions, in-licenses or otherwise, necessary rights to its product candidate or other technologies.

Forte currently have rights to certain intellectual property, through licenses from third parties, to develop its product candidate. Some healthcare companies and academic institutions are competing with Forte in the field of microbiome therapies and may have patents and have filed and are likely filing patent applications potentially relevant to Forte's business. In order to avoid infringing these third-party patents, Forte may find it necessary or prudent to obtain licenses to such patents from such third party intellectual property holders. Forte may also require licenses from third parties for certain technologies that Forte may evaluating for use with its current or future product candidate. However, Forte may be unable to secure such licenses or otherwise acquire or in-license any compositions, methods of use, processes, or other intellectual property rights from third parties that Forte identifies as necessary for its current or any future product candidate at a reasonable cost or on reasonable terms, if at all. The licensing or acquisition of third party intellectual property rights is a competitive area, and several more established companies may pursue strategies to license or acquire third party intellectual property rights that Forte may consider attractive or necessary. These established companies may have a competitive advantage over Forte due to their size, capital resources and greater clinical development and commercialization capabilities. In addition, companies that perceive Forte to be a competitor may be unwilling to assign or license rights to us. Forte also may be unable to license or acquire third party intellectual property rights on terms that would allow Forte to make an appropriate return on its investment or at all.

In the event that Forte tries to obtain rights to required third party intellectual property rights, and are ultimately unsuccessful, Forte may be required to expend significant time and resources to redesign its technology, product candidate, or the methods for manufacturing them or to develop or license replacement technology, all of which may not be feasible on a technical or commercial basis. If Forte is unable to do so, Forte may be unable to develop or commercialize the affected product candidate which could harm its business, financial condition, results of operations, and prospects significantly.

Forte may be subject to claims that its employees, consultants, or advisors have wrongfully used or disclosed alleged trade secrets of their current or former employers or claims asserting ownership of what Forte regards as its own intellectual property.

Many of Forte's employees, consultants, and advisors are currently or were previously employed at universities or other healthcare companies, including its competitors and potential competitors. Although Forte tries to ensure that its employees, consultants, and advisors do not use the proprietary information or know-how

of others in their work for Forte, Forte may be subject to claims that Forte or these individuals have used or disclosed intellectual property, including trade secrets or other proprietary information, of any such individual's current or former employer. Litigation may be necessary to defend against these claims. If Forte fails in defending any such claims, in addition to paying monetary damages, Forte may lose valuable intellectual property rights or personnel. Even if Forte is successful in defending against such claims, litigation could result in substantial costs and be a distraction to management.

In addition, while it is Forte's policy to require its employees and contractors who may be involved in the conception or development of intellectual property to execute agreements assigning such intellectual property to Forte, Forte may be unsuccessful in executing such an agreement with each party who, in fact, conceives or develops intellectual property that Forte regards as its own. The assignment of intellectual property rights may not be self-executing, or the assignment agreements may be breached, and Forte may be forced to bring claims against third parties, or defend claims that they may bring against us, to determine the ownership of what Forte regards as its intellectual property. Such claims could have a material adverse effect on Forte's business, financial condition, results of operations, and prospects.

Third-party claims of intellectual property infringement, misappropriation or other violation against Forte or its collaborators may prevent or delay the development and commercialization of Forte's product candidate and other technologies.

The field of developing therapeutics that target the microbiome is competitive and dynamic. Due to the focused research and development that is taking place by several companies, including Forte and its competitors, in this field, the intellectual property landscape is in flux, and it may remain uncertain in the future. As such, there may be significant intellectual property related litigation and proceedings relating to Forte's owned, and other third party, intellectual property and proprietary rights in the future.

Forte's commercial success depends in part on its and its collaborators' ability to avoid infringing, misappropriating and otherwise violating the patents and other intellectual property rights of third parties. There is a substantial amount of complex litigation involving patents and other intellectual property rights in the biotechnology and pharmaceutical industries, as well as administrative proceedings for challenging patents, including interference, derivation and reexamination proceedings before the USPTO or oppositions and other comparable proceedings in foreign jurisdictions. As discussed above, recently, due to changes in U.S. law referred to as patent reform, new procedures including *inter partes* review and post-grant review have been implemented. As stated above, this reform adds uncertainty to the possibility of challenge to Forte's patents in the future.

Numerous U.S. and foreign issued patents and pending patent applications owned by third parties exist relating to microbiome technologies and in the fields in which Forte is developing its product candidate. As the biotechnology and pharmaceutical industries expand and more patents are issued, the risk increases that its product candidate and other technologies may give rise to claims of infringement of the patent rights of others. Forte cannot assure you that its product candidate and other technologies that Forte has developed, are developing or may develop in the future will not infringe existing or future patents owned by third parties. Forte may not be aware of patents that have already been issued and that a third party, for example, a competitor in the fields in which Forte is developing its product candidate and other technologies might assert are infringed by its current or future product candidate or other technologies, including claims to compositions, formulations, methods of manufacture or methods of use or treatment that cover its product candidate or other technologies. It is also possible that patents owned by third parties of which Forte is aware, but which Forte does not believe are relevant to its product candidate or other technologies, could be found to be infringed by its product candidate or other technologies. In addition, because patent applications can take many years to issue, there may be currently pending patent applications that may later result in issued patents that its product candidate or other technologies may infringe. Forte cannot provide any assurances that third-party patents do not exist which might be enforced against its current technology, manufacturing methods, product candidate, or future methods or products

resulting in either an injunction prohibiting its manufacture or future sales, or, with respect to its future sales, an obligation on its part to pay royalties and/or other forms of compensation to third parties, which could be significant.

Third parties may have patents or obtain patents in the future and claim that the manufacture, use or sale of Forte's product candidate or other technologies infringes upon these patents. In the event that any third party claims that Forte infringes their patents or that Forte is otherwise employing their proprietary technology without authorization and initiates litigation against us, even if Forte believes such claims are without merit, a court of competent jurisdiction could hold that such patents are valid, enforceable and infringed by Forte's product candidate or other technologies. In this case, the holders of such patents may be able to block Forte's ability to commercialize the applicable product candidate or technology unless Forte obtains a license under the applicable patents, or until such patents expire or are finally determined to be held invalid or unenforceable. Such a license may not be available on commercially reasonable terms or at all. Even if Forte is able to obtain a license, the license would likely obligate Forte to pay license fees or royalties or both, and the rights granted to Forte might be non-exclusive, which could result in its competitors gaining access to the same intellectual property. If Forte is unable to obtain a necessary license to a third-party patent on commercially reasonable terms, Forte may be unable to commercialize its product candidate or other technologies, or such commercialization efforts may be significantly delayed, which could in turn significantly harm Forte's business.

Defense of infringement claims, regardless of their merit, would involve substantial litigation expense and would be a substantial diversion of management and other employee resources from Forte's business, and may impact its reputation. In the event of a successful claim of infringement against Forte, Forte may be enjoined from further developing or commercializing its infringing product candidate or other technologies. In addition, Forte may have to pay substantial damages, including treble damages and attorneys' fees for willful infringement, obtain one or more licenses from third parties, pay royalties and/or redesign its infringing product candidate or technologies, which may be impossible or require substantial time and monetary expenditure. In that event, Forte would be unable to further develop and commercialize its product candidate, FB-401, or other technologies, which could harm its business significantly.

Engaging in litigation to defend against third parties alleging that Forte has infringed, misappropriated or otherwise violated their patents or other intellectual property rights is very expensive, particularly for a company of its size, and time-consuming. Some of its competitors may be able to sustain the costs of litigation or administrative proceedings more effectively than Forte can because of greater financial resources. Patent litigation and other proceedings may also absorb significant management time. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings against Forte could impair its ability to compete in the marketplace. The occurrence of any of the foregoing could have a material adverse effect on Forte's business, financial condition or results of operations.

Forte may become involved in lawsuits to protect or enforce its patents and other intellectual property rights, which could be expensive, time-consuming, and unsuccessful.

Competitors may infringe Forte's patents, or Forte may be required to defend against claims of infringement. In addition, its patents also may become involved in inventorship, priority or validity disputes. To counter or defend against such claims can be expensive and time-consuming. In an infringement proceeding, a court may decide that a patent owned by Forte is invalid or unenforceable, the other party's use of its patented technology falls under the safe harbor to patent infringement under 35 U.S.C. § 271(e)(1), or may refuse to stop the other party from using the technology at issue on the grounds that its owned patents do not cover the technology in question. An adverse result in any litigation proceeding could put one or more of its owned patents at risk of being invalidated or interpreted narrowly. Even if Forte establishes infringement, the court may decide not to grant an injunction against further infringing activity and instead award only monetary damages, which may or may not be an adequate remedy. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of Forte's confidential information could be compromised by disclosure during this type of litigation.

Even if resolved in Forte's favor, litigation or other legal proceedings relating to intellectual property claims may cause Forte to incur significant expenses and could distract its personnel from their normal responsibilities. In addition, there could be public announcements of the results of hearings, motions, or other interim proceedings or developments, and if securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of Forte's common stock. Such litigation or proceedings could substantially increase its operating losses and reduce the resources available for development activities or any future sales, marketing, or distribution activities. Forte may not have sufficient financial or other resources to conduct such litigation or proceedings adequately. Some of its competitors may be able to sustain the costs of such litigation or proceedings more effectively than Forte can because of their greater financial resources and more mature and developed intellectual property portfolios. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could have a material adverse effect on Forte's ability to compete in the marketplace.

If Forte's trademarks and trade names are not adequately protected, then Forte may not be able to build name recognition in its markets of interest and its business may be adversely affected.

Forte's registered or unregistered trademarks or trade names may be challenged, infringed, circumvented or declared generic or determined to be infringing on other marks. Forte may not be able to protect its rights to these trademarks and trade names, which Forte needs to build name recognition among potential partners or customers in its markets of interest. At times, competitors or other third parties may adopt trade names or trademarks similar to Forte's, thereby impeding Forte's ability to build brand identity and possibly leading to market confusion. If Forte asserts trademark infringement claims, a court may determine that the marks Forte has asserted are invalid or unenforceable, or that the party against whom Forte has asserted trademark infringement has superior rights to the marks in question. In this case, Forte could ultimately be forced to cease use of such trademarks. In addition, there could be potential trade name or trademark infringement claims brought by owners of other registered trademarks or trademarks that incorporate variations of Forte's registered or unregistered trademarks or trade names. Over the long term, if Forte is unable to establish name recognition based on its trademarks and trade names, then Forte may not be able to compete effectively, and its business may be adversely affected. Forte's efforts to enforce or protect its proprietary rights related to trademarks, trade secrets, domain names, copyrights or other intellectual property may be ineffective and could result in substantial costs and diversion of resources and could adversely affect its business, financial condition, results of operations and prospects.

Intellectual property rights do not necessarily address all potential threats.

The degree of future protection afforded by Forte's intellectual property rights is uncertain because intellectual property rights have limitations and may not adequately protect its business or permit Forte to maintain its competitive advantage. For example:

- others may be able to make products that are similar to Forte's product candidate or utilize similar technology but that are not covered by the claims of the patents that Forte may own;
- Forte, or its current or future licensors or collaborators, might not have been the first to make the inventions covered by the issued patent or pending patent application that Forte own now or in the future;
- Forte, or its current or future licensors or collaborators, might not have been the first to file patent applications covering certain of its or their inventions;
- others may independently develop similar or alternative technologies or duplicate any of Forte's technologies without infringing Forte's owned intellectual property rights;
- it is possible that Forte's current or future pending owned patent applications will not lead to issued patents;

- issued patents that Forte hold rights to may be held invalid or unenforceable, including as a result of legal challenges by its competitors or other third parties;
- Forte's competitors or other third parties might conduct research and development activities in countries where Forte do not have patent rights and then use the information learned from such activities to develop competitive products for sale in its major commercial markets;
- Forte may not develop additional proprietary technologies that are patentable;
- the patents of others may harm Forte's business; and
- Forte may choose not to file a patent in order to maintain certain trade secrets or know-how, and a third party may subsequently file a patent covering such intellectual property.

Should any of these events occur, they could have a material adverse effect on Forte's business, financial condition, results of operations and prospects.

Risks related to Forte's reliance on third parties

Forte will rely on third parties to conduct its clinical trials. If these third parties do not successfully carry out their contractual duties or meet expected deadlines or comply with regulatory requirements, Forte may not be able to obtain regulatory approval of or commercialize any potential product candidate.

Forte will depend upon third parties, including independent investigators, to conduct its clinical trials under agreements with universities, medicinal institutions, CROs, strategic partners and others. Forte expects to have to negotiate budgets and contracts with CROs and trial sites, which may result in delays to its development timelines and increased costs.

Forte will rely heavily on third parties over the course of its clinical trials, and, as a result, will have limited control over the clinical investigators and limited visibility into their day-to-day activities, including with respect to their compliance with the approved clinical protocol. Nevertheless, Forte is responsible for ensuring that each of its clinical trials is conducted in accordance with the applicable protocol, legal and regulatory requirements and scientific standards, and its reliance on third parties does not relieve Forte of its regulatory responsibilities. Forte and these third parties are required to comply with GCP requirements, which are regulations and guidelines enforced by the FDA and comparable foreign regulatory authorities for product candidate in clinical development. Regulatory authorities enforce these GCP requirements through periodic inspections of trial sponsors, clinical investigators and trial sites. If Forte or any of these third parties fail to comply with applicable GCP requirements, the clinical data generated in its clinical trials may be deemed unreliable and the FDA or comparable foreign regulatory authorities may require Forte to suspend or terminate these trials or perform additional preclinical studies or clinical trials before approving its marketing applications. Forte cannot be certain that, upon inspection, such regulatory authorities will determine that any of its clinical trials comply with the GCP requirements. In addition, its clinical trials must be conducted with drug product produced under cGMP requirements and may require a large number of patients.

Forte's failure or any failure by these third parties to comply with these regulations or to recruit a sufficient number of patients may require Forte to repeat clinical trials, which would delay the regulatory approval or commercialization process. Moreover, its business may be implicated if any of these third parties violates federal or state fraud and abuse or false claims laws and regulations or healthcare privacy and security laws.

Any third parties conducting Forte's future clinical trials will not be its employees and, except for remedies that may be available to Forte under its agreements with such third parties, Forte cannot control whether or not they devote sufficient time and resources to its ongoing clinical programs. These third parties may also have relationships with other commercial entities, including Forte's competitors, for whom they may also be conducting clinical trials or other product development activities, which could affect their performance on

Forte's behalf. If these third parties do not successfully carry out their contractual duties or obligations or meet expected deadlines, if they need to be replaced or if the quality or accuracy of the clinical data they obtain is compromised due to the failure to adhere to Forte's clinical protocols or regulatory requirements or for other reasons, Forte's clinical trials may be extended, delayed or terminated and Forte may not be able to complete development of, obtain regulatory approval of or successfully commercialize its product candidate. As a result, its financial results and the commercial prospects for its product candidate would be harmed, its costs could increase and its ability to generate revenue could be delayed.

If any of its relationships with these third-party CROs or others terminate, Forte may not be able to enter into arrangements with alternative CROs or other third parties or to do so on commercially reasonable terms. Switching or adding additional CROs involves additional cost and requires management time and focus. In addition, there is a natural transition period when a new CRO begins work. As a result, delays may occur, which can materially impact Forte's ability to meet its desired clinical development timelines. Though Forte carefully manages its relationships with its CROs, there can be no assurance that Forte will not encounter similar challenges or delays in the future or that these delays or challenges will not have a material adverse impact on its business, financial condition and prospects.

Forte expects to rely on third parties to manufacture its clinical supply of product candidate, and Forte intends to rely on third parties to produce and process its products, if approved.

Forte currently relies on outside vendors to supply raw materials and other important components. Forte has not yet caused any product candidate to be manufactured or processed on a commercial scale and may not be able to do so for any of its product candidates. Forte will make changes as Forte works to optimize the manufacturing process for its product candidates, and Forte cannot be sure that even minor changes in the process will result in therapies that are safe and effective.

The facilities used to manufacture Forte's product candidate must be approved by the FDA or other foreign regulatory agencies pursuant to inspections that will be conducted after Forte submits a marketing application to the FDA or other foreign regulatory agencies. Forte does not currently control all aspects of the manufacturing process of, and are currently largely dependent on, its contract manufacturing partners for compliance with regulatory requirements, known as cGMP requirements, for manufacture of its product candidate. If and when its manufacturing facility becomes operational, Forte will be responsible for compliance with cGMP requirements. If Forte or its contract manufacturers cannot successfully manufacture in conformance with its specifications and the strict regulatory requirements of the FDA or other regulatory authorities, Forte and they will not be able to secure and/or maintain regulatory approval for their manufacturing facilities with respect to the manufacture of its product candidate. In addition, Forte has no control over the ability of its contract manufacturers to maintain adequate quality control, quality assurance and qualified personnel. If the FDA or a comparable foreign regulatory authority does not approve these facilities for the manufacture of its product candidate or if it withdraws any such approval in the future, Forte may need to find alternative manufacturing facilities, which would significantly impact its ability to develop, obtain regulatory approval for or market its product candidate, if approved.

For more information, see "Risk Factors—Risks Related to Manufacturing and Supply" below.

If Forte's contract manufacturing organization for materials to be used in its clinical trials fails to supply Forte with the necessary materials, Forte may be unable to complete its clinical trials on a timely basis, if at all.

Forte has entered into a services agreement with a third party to handle the manufacturing supply chain for drug substance synthesis for its planned clinical trials. If this manufacturer is unable or unwilling to provide Forte with sufficient quantities of its microbiome candidate to meet its demands or fails to meet its standards of quality or other specification or to achieve drug cGMP compliance, Forte may not be able to locate any alternative suppliers or enter into commercially reasonable agreements with substitute suppliers in a timely manner or at all.

A coronavirus pandemic is ongoing in many parts of the world and can result in significant disruptions to Forte's supply of the investigational product for its clinical trials which could have a material adverse effect on its business.

As the COVID-19 pandemic is still evolving as of this time, much of its impact remains unknown, and it is impossible to predict the impact it may have on the development of Forte's product candidates and the impact on its business. The severity of the coronavirus pandemic could also make access to Forte's existing supply chain difficult or impossible by delaying the delivery of key raw materials used in its product candidates and therefore delay the delivery of such products for use in its clinical trials. Any of these results could materially impact Forte's business and have an adverse effect on its business.

Third-party relationships are important to Forte's business. If Forte is unable to maintain its collaborations, enter into new relationships or if these relationships are not successful, its business could be adversely affected.

Forte has limited capabilities for product development and do not yet have any capability for sales, marketing or distribution. Accordingly, Forte enters into relationships with other companies to provide it with important technologies, and Forte may receive additional technologies and funding under these and other collaborations in the future. Relationships Forte enter into, may pose a number of risks, including the following:

- third parties have, and future third-party collaborators may have, significant discretion in determining the efforts and resources that they will apply;
- current and future third parties may not perform their obligations as expected;
- current and future third parties may not pursue development and commercialization of any product candidate that achieve regulatory approval or may elect not to continue or renew development or commercialization programs based on clinical trial results, changes in the third parties' strategic focus or available funding, or external factors, such as a strategic merger that may divert resources or create competing priorities;
- third parties may delay clinical trials, provide insufficient funding for a clinical trial program, stop a clinical trial or abandon a product candidate, repeat or conduct new clinical trials or require a new formulation of a product candidate for clinical testing;
- current and future third parties could independently develop, or develop with third parties, products that compete directly or indirectly with Forte's products and product candidate if the third parties believe that the competitive products are more likely to be successfully developed or can be commercialized under terms that are more economically attractive than ours;
- product candidates discovered in collaboration with Forte may be viewed by its current or future third parties as competitive with their own product candidate or products, which may cause such third parties to cease to devote resources to the commercialization of its product candidate;
- current and future third parties may fail to comply with applicable regulatory requirements regarding the development, manufacture, distribution or marketing of a product candidate or product;
- current and future third parties with marketing and distribution rights to one or more of Forte's product candidates that achieve regulatory approval may not commit sufficient resources to the marketing and distribution of such product or products;
- disagreements with current or future third parties, including disagreements over proprietary rights, contract interpretation or the preferred course of development, might cause delays or terminations of the research, development or commercialization of product candidate, might lead to additional responsibilities for Forte with respect to product candidate, or might result in litigation or arbitration, any of which would be time-consuming and expensive;

- current and future third parties may not properly maintain or defend its intellectual property rights or may use its proprietary information in such a way as to invite litigation that could jeopardize or invalidate its intellectual property or proprietary information or expose Forte to potential litigation;
- current and future third parties may infringe the intellectual property rights of third parties, which may expose Forte to litigation and potential liability;
- if a current or future third parties of ours is involved in a business combination, the collaborator might deemphasize or terminate the development or commercialization of any product candidate licensed to it by Forte; and
- current and future relationships may be terminated by the collaborator, and, if terminated, Forte could be required to raise additional capital to pursue further development or commercialization of the applicable product candidate.

If Forte's relationships do not result in the successful discovery, development and commercialization of products or if one of its third parties terminates its agreement with Forte, Forte may not receive any future research funding or milestone or royalty payments under the collaboration. If Forte does not receive the funding Forte expects under these agreements, its development of its technology and product candidates could be delayed, and Forte may need additional resources to develop product candidate and its technology. All of the risks relating to product development, regulatory approval and commercialization described in this prospectus also apply to the activities of its collaborators.

Additionally, if any of Forte's current or future third parties terminate their agreement with Forte, Forte may find it more difficult to attract new collaborators and its perception in the business and financial communities could be adversely affected.

Relationships are complex and time-consuming to negotiate and document. In addition, there have been a significant number of recent business combinations among large pharmaceutical companies that have resulted in a reduced number of potential future collaborators. Forte faces significant competition in seeking appropriate collaborators. Forte's ability to reach a definitive agreement for a collaboration will depend, among other things, upon its assessment of the collaborator's resources and expertise, the terms and conditions of the proposed collaboration and the proposed collaborator's evaluation of a number of factors. If Forte is unable to reach agreements with suitable third parties on a timely basis, on acceptable terms, or at all, Forte may have to curtail the development of a product candidate, reduce or delay its development program or one or more of its other development programs, delay its potential commercialization or reduce the scope of any sales or marketing activities, or increase its expenditures and undertake development or commercialization activities at its own expense. If Forte elects to increase its expenditures to fund development or commercialization activities on its own, Forte may need to obtain additional expertise and additional capital, which may not be available to it on acceptable terms, or at all. If Forte fails to enter into relationships or does not have sufficient funds or expertise to undertake the necessary development and commercialization activities, Forte may not be able to further develop its product candidates, bring them to market and generate revenue from sales of drugs or continue to develop its technology, and its business may be materially and adversely affected.

Risks related to manufacturing and supply

Forte's product candidate relies on the availability of specialty raw materials, which may not be available to Forte on acceptable terms or at all.

Forte's product candidate requires certain specialty raw materials, some of which Forte obtain from small companies with limited resources and experience to support a commercial product. The suppliers may be ill-equipped to support Forte's needs, especially in non-routine circumstances like an FDA inspection or medical crisis, such as widespread contamination. Forte does not currently have contracts in place with all of the suppliers that Forte may need at any point in time, and if needed, may not be able to contract with them on

acceptable terms or at all. Accordingly, Forte may experience delays in receiving key raw materials to support clinical or commercial manufacturing.

Forte's product candidate requires specialized manufacturing capabilities. If Forte or any of its third-party manufacturers encounter difficulties in manufacturing its product candidate, its ability to provide supply of its product candidate for clinical trials or its products for patients, if approved, could be delayed or stopped, or Forte may be unable to maintain a commercially viable cost structure.

The manufacturing process used to produce Forte's product candidate is complex and novel, and it has not yet been validated for investigational and commercial production. As a result of these complexities, the cost to manufacture Forte's product candidate is higher than traditional small molecule chemical compounds and the manufacturing process is less reliable and is more difficult to reproduce. Furthermore, its cGMP manufacturing process development and scale-up is at an early stage. The actual cost to manufacture and process its product candidate could be greater than Forte expects and could materially and adversely affect the commercial viability of its product candidate.

Forte's manufacturing process may be susceptible to manufacturing issues associated with interruptions in the manufacturing process, contamination, equipment or reagent failure, improper installation or operation of equipment, vendor or operator error, and variability in product characteristics. Even minor deviations from normal manufacturing processes could result in reduced production yields, lot failures, product defects, product recalls, product liability claims and other supply disruptions. If microbial, viral or other contaminations are discovered in Forte's product candidate or in the manufacturing facilities in which its product candidate are made, production at such manufacturing facilities may be interrupted for an extended period of time to investigate and remedy the contamination. Further, as product candidate are developed through preclinical to late-stage clinical trials toward approval and commercialization, it is common that various aspects of the development program, such as manufacturing methods, are altered along the way in an effort to optimize processes and results. Such changes carry the risk that they will not achieve these intended objectives, and any of these changes could cause its product candidate to perform differently and affect the results of planned clinical trials or other future clinical trials. Further, changes made to its manufacturing process will require prior approval by FDA, which can delay Forte's clinical trials and regulatory approval of its product candidate.

Although Forte continues to optimize its manufacturing process for its product candidate, doing so is a difficult and uncertain task, and there are risks associated with scaling to the level required for advanced clinical trials or commercialization, including, among others, cost overruns, potential problems with process scale-up, process reproducibility, stability issues, lot consistency, and timely availability of reagents and/or raw materials. Forte ultimately may not be successful in transferring its production system from its contract manufacturer to any manufacturing facilities Forte establishes itself, or its contract manufacturer may not have the necessary capabilities to complete the implementation and development process. If Forte is unable to adequately validate or scale-up the manufacturing process for its product candidate with its current manufacturer, Forte will need to transfer to another manufacturer and complete the manufacturing validation process, which can be lengthy. If Forte is able to adequately validate and scale-up the manufacturing process for its product candidate with a contract manufacturer, Forte will still need to negotiate with such contract manufacturer an agreement for commercial supply, and it is not certain Forte will be able to come to agreement on terms acceptable to it. As a result, Forte may ultimately be unable to reduce the cost of goods for its product candidate to levels that will allow for an attractive return on investment if and when that product candidate is commercialized upon approval.

The manufacturing process for any products that Forte may develop is subject to the FDA and foreign regulatory authority approval process, and Forte will need to contract with manufacturers who can meet all applicable FDA and foreign regulatory authority requirements on an ongoing basis. If Forte or its CMOs are unable to reliably produce products to specifications acceptable to the FDA or other regulatory authorities, Forte may not obtain or maintain the approvals Forte needs to commercialize such products. Even if Forte obtains

regulatory approval for any of its product candidates, there is no assurance that either Forte or its CMOs will be able to manufacture the approved product to specifications acceptable to the FDA or other regulatory authorities, to produce it in sufficient quantities to meet the requirements for the potential launch of the product, or to meet potential future demand. Any of these challenges could delay completion of clinical trials, require bridging clinical trials or the repetition of one or more clinical trials, increase clinical trial costs, delay approval of its product candidate, impair commercialization efforts, increase Forte's cost of goods, and have an adverse effect on its business, financial condition, results of operations and growth prospects. Forte's future success depends on its ability to manufacture its products on a timely basis with acceptable manufacturing costs, while at the same time maintaining good quality control and complying with applicable regulatory requirements, and an inability to do so could have a material adverse effect on its business, financial condition, and results of operations. In addition, Forte could incur higher manufacturing costs if manufacturing processes or standards change, and Forte could need to replace, modify, design, or build and install equipment, all of which would require additional capital expenditures. Specifically, because its product candidate may have a higher cost of goods than conventional therapies, the risk that coverage and reimbursement rates may be inadequate for Forte to achieve profitability may be greater.

Forte may depend on third parties for clinical and commercial supplies, including, in some instances, a single supplier.

Forte may depend on third-party suppliers for clinical and commercial supplies, including the active ingredients which are used in its product candidate. These supplies may not always be available to Forte at the standards Forte require or on terms acceptable to it, or at all, and Forte may not be able to locate alternative suppliers in a timely manner, or at all. If Forte is unable to obtain necessary clinical or commercial supplies, its manufacturing operations and clinical trials and the clinical trials of its collaborators may be delayed or disrupted, and its business and prospects may be materially and adversely affected as a result.

Forte may rely on a single supplier for certain of its supplies. If this supplier is unable to supply to Forte in the quantities it requires, or at all, or otherwise defaults on its supply obligations to Forte, Forte may not be able to obtain alternative supplies from other suppliers on acceptable terms, in a timely manner, or at all.

Forte has limited experience manufacturing its drug product candidate for purposes of clinical trials and at commercial scale, and if Forte decides to establish its own manufacturing facility for its drug product candidate, Forte cannot assure you that it can manufacture its drug product candidate in compliance with regulations at a cost or in quantities necessary to make them commercially viable.

Forte may establish a manufacturing facility for its product candidate for production as investigational new drugs for purposes of clinical trials. Forte has limited experience in cGMP compliant manufacturing of its drug product candidate for purposes of clinical trials or at a commercial scale. In the future, Forte may develop its manufacturing capacity in part by expanding its current facility or building additional facilities. This activity will require substantial additional funds, and Forte would need to hire and train a significant number of qualified employees to staff these facilities. Forte may not be able to develop cGMP-compliant manufacturing facilities that are adequate to produce materials for additional later-stage clinical trials or commercial use. The equipment and facilities employed in the manufacture of pharmaceuticals are subject to stringent qualification requirements by regulatory agencies, including validation of facility, equipment, systems, processes and analytics. Forte may be subject to lengthy delays and expense in conducting validation studies, if Forte can meet the requirements at all.

Risks Related to Combined Company

In determining whether you should vote approve the proposals contained in this proxy statement/prospectus/information statement, you should carefully read the following risk factors in addition to the risks described above.

The combined company will need to raise additional financing in the future to fund its operations, which may not be available to it on favorable terms or at all.

The combined company will require substantial additional funds to conduct the costly and time-consuming clinical efficacy trials necessary to pursue regulatory approval of each potential product candidate and to continue the development of FB-401. The combined company's future capital requirements will depend upon a number of factors, including: the number and timing of future product candidates in the pipeline; progress with and results from preclinical testing and clinical trials; the ability to manufacture sufficient drug supplies to complete preclinical and clinical trials; the costs involved in preparing, filing, acquiring, prosecuting, maintaining and enforcing patent and other intellectual property claims; and the time and costs involved in obtaining regulatory approvals and favorable reimbursement or formulary acceptance. Raising additional capital may be costly or difficult to obtain and could significantly dilute stockholders' ownership interests or inhibit the combined company's ability to achieve its business objectives. If the combined company raises additional funds through public or private equity offerings, the terms of these securities may include liquidation or other preferences that adversely the rights of its common stockholders. Further, to the extent that the combined company raises additional capital through the sale of common stock or securities convertible or exchangeable into common stock, its stockholder's ownership interest in the combined company will be diluted. In addition, any debt financing may subject the combined company to fixed payment obligations and covenants limiting or restricting its ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. If the combined company raises additional capital through marketing and distribution arrangements or other collaborations, strategic alliances or licensing arrangements with third parties, the combined company may have to relinquish certain valuable intellectual property or other rights to its product candidates, technologies, future revenue streams or research programs or grant licenses on terms that may not be favorable to it. Even if the combined company were to obtain sufficient funding, there can be no assurance that it will be available on terms acceptable to the combined company or its stockholders.

The market price of the combined company's common stock is expected to be volatile, and the market price of the common stock may drop following the Merger.

The market price of the combined company's common stock following the Merger could be subject to significant fluctuations. Market prices for securities of early-stage pharmaceutical, biotechnology and other life sciences companies have historically been particularly volatile. Some of the factors that may cause the market price of the combined company's common stock to fluctuate include:

- the ability of the combined company to obtain regulatory approvals for its product candidates, and delays or failures to obtain such approvals;
- failure of any of the combined company's product candidates, if approved, to achieve commercial success;
- failure by the combined company to maintain its existing third-party license and supply agreements;
- failure by the combined company or its licensors to prosecute, maintain, or enforce its intellectual property rights;
- changes in laws or regulations applicable to the combined company's product candidates;
- any inability to obtain adequate supply of the combined company's product candidates or the inability to do so at acceptable prices;
- adverse regulatory authority decisions;
- introduction of new products, services or technologies by the combined company's competitors;
- failure to meet or exceed financial and development projections the combined company may provide to the public;
- failure to meet or exceed the financial and development projections of the investment community;

- the perception of the pharmaceutical industry by the public, legislatures, regulators and the investment community;
- announcements of significant acquisitions, strategic collaborations, joint ventures or capital commitments by the combined company or its competitors;
- disputes or other developments relating to proprietary rights, including patents, litigation matters, and the combined company's ability to obtain patent protection for its technologies;
- additions or departures of key personnel;
- significant lawsuits, including patent or stockholder litigation;
- if securities or industry analysts do not publish research or reports about the combined company's business, or if they issue an adverse or misleading opinion regarding its business and stock;
- changes in the market valuations of similar companies;
- general market or macroeconomic conditions;
- sales of its common stock by the combined company or its stockholders in the future;
- trading volume of the combined company's common stock;
- announcements by commercial partners or competitors of new commercial products, clinical progress or the lack thereof, significant contracts, commercial relationships or capital commitments;
- adverse publicity generally, including with respect to other products and potential products in such markets;
- the introduction of technological innovations or new therapies that compete with potential products of the combined company;
- changes in the structure of health care payment systems; and
- period-to-period fluctuations in the combined company's financial results.

Moreover, the stock markets in general have experienced substantial volatility that has often been unrelated to the operating performance of individual companies. These broad market fluctuations may also adversely affect the trading price of the combined company's common stock.

In the past, following periods of volatility in the market price of a company's securities, stockholders have often instituted class action securities litigation against those companies. Such litigation, if instituted, could result in substantial costs and diversion of management attention and resources, which could significantly harm the combined company's profitability and reputation.

Additionally, a decrease in the stock price of the combined company may cause the combined company's common stock to no longer satisfy the continued listing standards of Nasdaq. If the combined company is not able to maintain the requirements for listing on Nasdaq, it could be delisted, which could have a materially adverse effect on its ability to raise additional funds as well as the price and liquidity of its common stock.

The combined company will incur costs and demands upon management as a result of complying with the laws and regulations affecting public companies.

The combined company will incur significant legal, accounting and other expenses that Forte did not incur as a private company, including costs associated with public company reporting requirements. The combined company will also incur costs associated with corporate governance requirements, including requirements under the Sarbanes-Oxley Act, as well as new implemented by the SEC and Nasdaq. These rules and regulations are expected to increase the combined company's legal and financial compliance costs and to make some activities

more time consuming and costly. For example, the combined company's management team will consist of the executive officers of Forte prior to the Merger, some of whom have not previously managed and operated a public company. These executive officers and other personnel will need to devote substantial time to gaining expertise regarding operations as a public company and compliance with applicable laws and regulations. These rules and regulations also may make it difficult and expensive for the combined company to obtain directors' and officers' liability insurance. As a result, it may be more difficult for the combined company to attract and retain qualified individuals to serve on the combined company's board of directors or as executive officers of the combined company, which may adversely affect investor confidence in the combined company and could cause the combined company's business or stock price to suffer.

Anti-takeover provisions in the combined company's charter documents and under Delaware law could make an acquisition of the combined company more difficult and may prevent attempts by the combined company stockholders to replace or remove the combined company management.

Provisions in the combined company's certificate of incorporation and bylaws may delay or prevent an acquisition or a change in management. In addition, because the combined company will be incorporated in Delaware, it is governed by the provisions of Section 203 of the DGCL, which prohibits stockholders owning in excess of 15% of the outstanding combined company voting stock from merging or combining with the combined company. Although Tocagen and Forte believe these provisions collectively will provide for an opportunity to receive higher bids by requiring potential acquirors to negotiate with the combined company's board of directors, they would apply even if the offer may be considered beneficial by some stockholders. In addition, these provisions may frustrate or prevent any attempts by the combined company's stockholders to replace or remove then current management by making it more difficult for stockholders to replace members of the board of directors, which is responsible for appointing the members of management.

The certificate of incorporation of the combined company will provide that the Court of Chancery of the State of Delaware is the exclusive forum for substantially all disputes between the combined company and its stockholders, which could limit its stockholders' ability to obtain a favorable judicial forum for disputes with the combined company or its directors, officers or other employees.

The certificate of incorporation of the combined company will provide that the Court of Chancery of the State of Delaware is the sole and exclusive forum for any derivative action or proceeding brought on the combined company's behalf, any action asserting a breach of fiduciary duty owed by any of its directors, officers or other employees to the combined company or its stockholders, any action asserting a claim against it arising pursuant to any provisions of the DGCL, its certificate of incorporation or its bylaws, or any action asserting a claim against it that is governed by the internal affairs doctrine; *provided*, that these choice of forum provisions do not apply to suits brought to enforce a duty or liability created by the Securities Act, the Exchange Act, or any other claim for which the federal courts have exclusive jurisdiction. The choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with the combined company or its directors, officers or other employees, which may discourage such lawsuits against the combined company and its directors, officers and other employees. If a court were to find the choice of forum provision contained in the certificate of incorporation to be inapplicable or unenforceable in an action, the combined company may incur additional costs associated with resolving such action in other jurisdictions.

Tocagen and Forte do not anticipate that the combined company will pay any cash dividends in the foreseeable future.

The current expectation is that the combined company will retain its future earnings, if any, to fund the development and growth of the combined company's business. As a result, capital appreciation, if any, of the common stock of the combined company will be its stockholders' sole source of gain, if any, for the foreseeable future.

An active trading market for the combined company's common stock may not develop and its stockholders may not be able to resell their shares of common stock for a profit, if at all.

Prior to the Merger, there had been no public market for Forte's common stock. An active trading market for the combined company's shares of common stock may never develop or be sustained. If an active market for its common stock does not develop or is not sustained, it may be difficult for its stockholders to sell their shares at an attractive price or at all.

Future sales of shares by existing stockholders could cause the combined company's stock price to decline.

If existing stockholders of Tocagen and Forte sell, or indicate an intention to sell, substantial amounts of the combined company's common stock in the public market after legal restrictions on resale discussed in this proxy statement/prospectus/information statement lapse, the trading price of the common stock of the combined company could decline. Neither Tocagen nor Forte is able to predict the effect that sales may have on the prevailing market price of the combined company's common stock.

If equity research analysts do not publish research or reports, or publish unfavorable research or reports, about the combined company, its business or its market, its stock price and trading volume could decline.

The trading market for the combined company's common stock will be influenced by the research and reports that equity research analysts publish about it and its business. Equity research analysts may elect not to provide research coverage of the combined company's common stock after the completion of the Merger, and such lack of research coverage may adversely affect the market price of its common stock. In the event it does have equity research analyst coverage, the combined company will not have any control over the analysts, or the content and opinions included in their reports. The price of the combined company's common stock could decline if one or more equity research analysts downgrade its stock or issue other unfavorable commentary or research. If one or more equity research analysts ceases coverage of the combined company or fails to publish reports on it regularly, demand for its common stock could decrease, which in turn could cause its stock price or trading volume to decline.

The combined company will have broad discretion in the use of proceeds from the Pre-Closing Financing and may invest or spend the proceeds in ways with which its stockholders do not agree and in ways that may not increase the value of their investments.

The combined company will have broad discretion over the use of proceeds from the Pre-Closing Financing. Its stockholders may not agree with the combined company's decisions, and its use of the proceeds may not yield any return on its stockholders' investments. The combined company's failure to apply the net proceeds of the Pre-Closing Financing effectively could compromise its ability to pursue its growth strategy and the combined company might not be able to yield a significant return, if any, on its investment of these net proceeds. The combined company's stockholders will not have the opportunity to influence its decisions on how to use the net proceeds from the Pre-Closing Financing.

If the combined company fails to maintain proper and effective internal controls, its ability to produce accurate financial statements on a timely basis could be impaired.

The combined company will be subject to the reporting requirements of the Exchange Act, the Sarbanes-Oxley Act and the rules and regulations of Nasdaq. The Sarbanes-Oxley Act requires, among other things, that the combined company maintain effective disclosure controls and procedures and internal control over financial reporting. The combined company must perform system and process evaluation and testing of its internal control over financial reporting to allow management to report on the effectiveness of its internal controls over financial reporting in its Annual Report on Form 10-K filing for that year, as required by Section 404 of the Sarbanes-Oxley Act. As a private company, Forte has never been required to test its internal controls within a

specified period. This will require that the combined company incur substantial professional fees and internal costs to expand its accounting and finance functions and that it expends significant management efforts. The combined company may experience difficulty in meeting these reporting requirements in a timely manner.

The combined company may discover weaknesses in its system of internal financial and accounting controls and procedures that could result in a material misstatement of its financial statements. The combined company's internal control over financial reporting will not prevent or detect all errors and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud will be detected.

If the combined company is not able to comply with the requirements of Section 404 of the Sarbanes-Oxley Act, or if it is unable to maintain proper and effective internal controls, the combined company may not be able to produce timely and accurate financial statements. If that were to happen, the market price of its common stock could decline and it could be subject to sanctions or investigations by Nasdaq, the SEC or other regulatory authorities.

If the combined company fails to attract and retain management and other key personnel, it may be unable to continue to successfully develop or commercialize its product candidates or otherwise implement its business plan.

The combined company's ability to compete in the highly competitive pharmaceuticals industry depends on its ability to attract and retain highly qualified managerial, scientific, medical, legal, sales and marketing and other personnel. The combined company will be highly dependent on its management and scientific personnel. The loss of the services of any of these individuals could impede, delay or prevent the successful development of the combined company's product pipeline, completion of its planned clinical trials, commercialization of its product candidates or in-licensing or acquisition of new assets and could impact negatively its ability to implement successfully its business plan. If the combined company loses the services of any of these individuals, it might not be able to find suitable replacements on a timely basis or at all, and its business could be harmed as a result. The combined company might not be able to attract or retain qualified management and other key personnel in the future due to the intense competition for qualified personnel among biotechnology, pharmaceutical and other businesses.

The combined company is expected to take advantage of reduced disclosure and governance requirements applicable to smaller reporting companies, which could result in its common stock being less attractive to investors.

Following the Merger, the combined company is expected to have a public float of less than $250 million and therefore will qualify as a smaller reporting company under the rules of the SEC. As a smaller reporting company, the combined company will be able to take advantage of reduced disclosure requirements, such as simplified executive compensation disclosures and reduced financial statement disclosure requirements in its SEC filings. Decreased disclosures in the combined company's SEC filings due to its status as a smaller reporting company may make it harder for investors to analyze its results of operations and financial prospects. Tocagen and Forte cannot predict if investors will find the combined company's common stock less attractive if it relies on these exemptions. If some investors find its common stock less attractive as a result, there may be a less active trading market for its common stock and its stock price may be more volatile. The combined company may take advantage of the reporting exemptions applicable to a smaller reporting company until it is no longer a smaller reporting company, which status would end once it has a public float greater than $250 million. In that event, the combined company could still be a smaller reporting company if its annual revenues were below $100 million and it has a public float of less than $700 million.

CAUTIONARY NOTE CONCERNING FORWARD-LOOKING STATEMENTS

This proxy statement/prospectus/information statement and the documents incorporated by reference into this proxy statement/prospectus/information statement contain forward-looking statements. These forward-looking statements are based on current expectations and beliefs and involve numerous risks and uncertainties that could cause actual results to differ materially from expectations. These forward-looking statements should not be relied upon as predictions of future events as it cannot be assured that the events or circumstances reflected in these statements will be achieved or will occur. You can identify forward-looking statements by the use of forward-looking terminology including "anticipates," "believes," "could," "seeks," "estimates," "expects," "intends," "may," "plans," "potential," "predicts," "projects," "pro forma," "should," "will," "would," or the negative of these words and phrases or other variations of these words and phrases or comparable terminology. All statements other than statements of historical fact are statements that could be deemed forward-looking statements. For example, forward-looking statements include, but are not limited to statements about:

- the strategies, prospects, plans, expectations and objectives of management of Tocagen or Forte for future operations of the combined company following the closing of the Merger;
- the progress, scope or duration of the development of product candidates or programs;
- the benefits that may be derived from, or the commercial or market opportunity of, product candidates;
- the ability of Tocagen or Forte to protect their intellectual property rights;
- the ability of Tocagen to maintain compliance with Nasdaq listing standards;
- the level of net cash held by Tocagen at the closing of the Merger;
- the anticipated operations, financial position, losses, costs or expenses of Tocagen, Forte or the combined company following the closing of the Merger;
- statements regarding future economic conditions or performance;
- statements concerning proposed products or product candidates;
- the approval and closing of the Merger, including the timing of the Merger, the ability of Tocagen to obtain a sufficient number of proxies to approve the Merger, other conditions to the completion of the Merger, the Exchange Ratio, and relative ownership levels as of the closing of the Merger;
- the expected benefits of and potential value created by the Merger for the stockholders of Tocagen; and
- Forte's ability to complete the Pre-Closing Financing in connection with the Merger;
- statements of belief and any statement of assumptions underlying any of the foregoing.

For a discussion of the factors that may cause Tocagen, Forte or the combined company's actual results, performance or achievements following closing of the proposed Merger to differ materially from any future results, performance or achievements expressed or implied in such forward-looking statements, or for a discussion of risk associated with the ability of Tocagen and Forte to complete the Merger and the effect of the Merger on the business of Tocagen, Forte and the combined company following the completion of the Merger, see "*Risk Factors*" beginning on page 26 of this proxy statement/prospectus/information statement. Additional factors that could cause actual results to differ materially from those expressed in the forward-looking statements are discussed in reports filed with the SEC by Tocagen. See "*Where You Can Find More Information*" beginning on page 273 of this proxy statement/prospectus/information statement. There can be no assurance that the Merger will be completed, or if it is completed, that it will close within the anticipated time period or that the expected benefits of the Merger will be realized.

If any of these risks or uncertainties materializes or any of these assumptions proves incorrect, the results of Tocagen, Forte or the combined company following completion of the Merger could differ materially from the forward-looking statements. All forward-looking statements in this proxy statement/prospectus/information statement are current only as of the date on which the statements were made. Tocagen and Forte do not undertake any obligation (and expressly disclaim any such obligation) to publicly update any forward-looking statement to reflect events or circumstances after the date on which any statement is made or to reflect the occurrence of unanticipated events, except as required by applicable law.

THE SPECIAL MEETING OF TOCAGEN'S STOCKHOLDERS

Date, Time and Place

The Tocagen special meeting will be held on , 2020, at the offices of Cooley LLP located at 4401 Eastgate Mall, San Diego, CA 92121 commencing at local time. Tocagen is sending this proxy statement/prospectus/information statement to its common stockholders in connection with the solicitation of proxies by the Tocagen Board for use at the Tocagen special meeting and any adjournments or postponements of the Tocagen special meeting. This proxy statement/prospectus/information statement is first being furnished to Tocagen's common stockholders on or about , 2020.

Tocagen is closely monitoring developments related to COVID-19. It could become necessary to change the date, time, location and/or means of holding the Tocagen special meeting (including by means of remote communication). If such a change is made, Tocagen will announce the change in advance, and details on how to participate will be issued by press release, posted on Tocagen's website and filed as additional proxy materials.

Purpose of the Tocagen Special Meeting

The purpose of the Tocagen special meeting is:

1. *Proposal No. 1 (Reverse Split).* To consider and vote upon a proposal to approve an amendment to Tocagen's amended and restated certificate of incorporation to effect a reverse stock split of Tocagen Common Stock at a ratio within the range between 8-for-1 and 15-for-1, with such ratio to be mutually agreed upon by Tocagen and Forte prior to the Effective Time, such amendment in the form attached as *Annex E* to this proxy statement/prospectus/information statement.
2. *Proposal No. 2 (Nasdaq Listing Rules).* To consider and vote upon a proposal to approve (i) the issuance of shares of Tocagen capital stock pursuant to the Merger, which will represent more than 20% of the shares of Tocagen Common Stock outstanding immediately prior to the Merger, and (ii) the change of control of Tocagen resulting from the Merger, pursuant to the Nasdaq Listing Rules 5635(a) and 5635(b), respectively.
3. *Proposal No. 3 (Postponement or Adjournment of Special Meeting).* To consider and vote upon a postponement or adjournment of the Tocagen special meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of Proposal Nos. 1 or 2.

Tocagen will transact no other business at the special meeting except such business as may properly be brought before the special meeting or any adjournment or postponement thereof. Proposal Nos. 1 through 3 described above are collectively the "Tocagen Stockholder Matters," and Proposal Nos. 1 and 2 above are collectively the "Closing Tocagen Stockholder Matters."

Recommendation of the Tocagen Board

The Tocagen Board has unanimously determined that the Tocagen Stockholder Matters are fair to, advisable for and in the best interests of Tocagen and its stockholders. The Tocagen Board recommends that Tocagen's common stockholders vote "FOR" each of Proposal Nos. 1, 2 and 3.

Record Date and Voting Power

Only holders of record of Tocagen Common Stock at the close of business on the record date, April 20, 2020, are entitled to notice of, and to vote at, the Tocagen special meeting. There were approximately 311 holders of record of Tocagen Common Stock at the close of business on the record date. At the close of business on the record date, 23,918,889 shares of Tocagen Common Stock were issued and outstanding. Each share of Tocagen Common Stock entitles the holder thereof to one vote on each matter submitted for stockholder

approval. See the section titled "*Principal Stockholders of Tocagen*" beginning on page 265 of this proxy statement/prospectus/information statement for information regarding persons known to Tocagen's management to be the beneficial owners of more than 5% of the outstanding shares of Tocagen Common Stock.

Voting and Revocation of Proxies

The proxy accompanying this proxy statement/prospectus/information statement is solicited on behalf of the Tocagen Board for use at the Tocagen special meeting.

If you are a stockholder of record of Tocagen as of the record date referred to above, you may vote in person at the Tocagen special meeting or vote by proxy. Whether or not you plan to attend the Tocagen special meeting, Tocagen urges you to vote by proxy to ensure your vote is counted. You may still attend the Tocagen special meeting and vote in person if you have already voted by proxy. As a stockholder of record you may vote in any of the following ways:

- to vote in person, attend the Tocagen special meeting and Tocagen will provide you a ballot when you arrive;
- to vote using the proxy card, simply mark, sign and date your proxy card and return it promptly in the postage-paid envelope provided. If you return your signed proxy card to Tocagen before the Tocagen special meeting, Tocagen will vote your shares of Tocagen Common Stock as you direct on the proxy card; or
- to vote by telephone or on the Internet, dial the number on the proxy card or voting instruction form or visit the website on the proxy card or voting instruction form to complete an electronic proxy card. You will be asked to provide the Tocagen number and control number from the enclosed proxy card. Your vote must be received by 11:59 p.m., Eastern time on , 2020 to be counted.

If your shares of Tocagen Common Stock are held by your broker as your nominee, that is, in "street name," the enclosed voting instruction card is sent by the institution that holds your shares. Please follow the instructions included on that voting instruction card regarding how to instruct your broker to vote your shares of Tocagen Common Stock. If you do not give instructions to your broker, your broker can vote your shares of Tocagen Common Stock with respect to "routine" items but not with respect to "non-routine" items such as Proposal No. 2, and, as a result, absent specific instructions from the beneficial owner of such shares, brokers are not empowered to vote those shares. Routine items are proposals considered routine under certain rules applicable to brokers on which your broker may vote shares held in "street name" in the absence of your voting instructions. On non-routine items for which you do not give your broker instructions, your shares of Tocagen Common Stock will be treated as "broker non-votes." Broker non-votes, if any, will be treated as shares that are present at the special meeting for purposes of determining whether a quorum exists but will not be counted or deemed to be present in person or by proxy for the purpose of voting on Proposal No. 2.

All properly executed proxies that are not revoked will be voted at the Tocagen special meeting and at any adjournments or postponements of the Tocagen special meeting in accordance with the instructions contained in the proxy. **If a holder of Tocagen Common Stock executes and returns a proxy and does not specify otherwise, the shares represented by that proxy will be voted "FOR" Proposal No. 1 to approve an amendment to the amended and restated certificate of incorporation of Tocagen effecting the Reverse Split; "FOR" Proposal No. 2 to approve the issuance of Tocagen capital stock pursuant to the Merger and the change of control resulting from the Merger; and "FOR" Proposal No. 3 to approve the postponement or adjournment of the Tocagen special meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of Proposal Nos. 1 or 2 in accordance with the recommendation of the Tocagen Board.**

Tocagen's common stockholders of record, other than those Tocagen stockholders who have executed voting agreements, may change their vote at any time before their proxy is voted at the Tocagen special meeting in one of three ways. First, a stockholder of record of Tocagen can send a written notice to the Secretary of Tocagen stating that the stockholder would like to revoke its proxy. Second, a stockholder of record of Tocagen can submit new proxy instructions either on a new proxy card or by telephone or via the Internet. Third, a stockholder of record of Tocagen can attend the Tocagen special meeting and vote in person. Attendance alone will not revoke a proxy. If a Tocagen stockholder who owns shares of Tocagen Common Stock in "street name" has instructed a broker to vote its shares of Tocagen Common Stock, the stockholder must follow directions received from its broker to change those instructions.

Required Vote

The presence, in person or represented by proxy, at the Tocagen special meeting of the holders of a majority of the shares of Tocagen Common Stock outstanding and entitled to vote at the Tocagen special meeting is necessary to constitute a quorum at the meeting. Abstentions and broker non-votes will be counted towards a quorum. Approval of Proposal No. 1 requires the affirmative vote of holders of a majority of Tocagen Common Stock having voting power outstanding on the record date for the Tocagen special meeting. Approval of Proposals Nos. 2 and 3 requires the affirmative vote of a majority of the votes cast in person or by proxy at the special Meeting.

Votes will be counted by the inspector of election appointed for the Tocagen special meeting, who will separately count "FOR" and "AGAINST" votes, abstentions and broker non-votes. Abstentions will have the same effect as votes "AGAINST" for Proposal No. 1. Abstentions and broker non-votes (if applicable) will have no effect on the outcome of Proposal Nos. 2 and 3 but will be used to determine whether a quorum is present at the Tocagen special meeting.

Each of Proposal Nos. 1 and 2 is a condition to the consummation of the Merger. Therefore, the Merger cannot be consummated without the approval of Proposal Nos. 1 and 2. Proposal No. 3 is not a condition to the consummation of the Merger. Proposal Nos. 1 and 2 are not conditioned on Proposal No. 3 being approved.

As of February 19, 2020, the directors and executive officers of Tocagen and other stockholders who signed support agreements beneficially owned approximately 6% of the outstanding shares of Tocagen Common Stock entitled to vote at the Tocagen special meeting. Pursuant to the support agreements, each such director, executive officer and other signatory stockholder has agreed to be present (in person or by proxy) at the Tocagen special meeting to vote all shares of Tocagen Common Stock owned by him or her as of the record date in favor of Proposal Nos. 1 and 2. Additionally, each such stockholder has agreed, solely in his or her capacity as a stockholder of Tocagen, to vote against any competing acquisition proposal and any action, proposal or transaction that would reasonably be expected to result in a material breach of the support agreements. As of March 23, 2020, Tocagen is not aware of any affiliate of Forte owning any shares of Tocagen Common Stock entitled to vote at the Tocagen special meeting.

Solicitation of Proxies

In addition to solicitation by mail, the directors, officers, employees and agents of Tocagen may solicit proxies from Tocagen's common stockholders by personal interview, telephone, email or otherwise. Forte will bear the costs of printing and filing this proxy statement/prospectus/information statement and proxy card. Arrangements will also be made with brokerage firms and other custodians, nominees and fiduciaries who are record holders of Tocagen Common Stock for the forwarding of solicitation materials to the beneficial owners of Tocagen Common Stock. In addition, Tocagen has engaged The Proxy Advisory Group, a proxy solicitation firm, to solicit proxies from Tocagen's common stockholders for a fee of $22,500 plus costs associated with solicitation campaigns. Tocagen will also reimburse reasonable out-of-pocket expenses. Tocagen will reimburse these brokers, custodians, nominees and fiduciaries for the reasonable out-of-pocket expenses they incur in

connection with the forwarding of solicitation materials. Fees paid to the SEC in connection with filing the statement/prospectus/information statement, and any amendments and supplements thereto, with the SEC will be paid by Forte.

Other Matters

As of the date of this proxy statement/prospectus/information statement, the Tocagen Board does not know of any business to be presented at the Tocagen special meeting other than as set forth in the notice accompanying this proxy statement/prospectus/information statement. If any other matters should properly come before the Tocagen special meeting, it is intended that the shares represented by proxies will be voted with respect to such matters in accordance with the judgment of the persons voting the proxies.

THE MERGER

This section and the section titled "The Merger Agreement" in this proxy statement/prospectus/information statement describe the material aspects of the Merger, including the Merger Agreement. While Tocagen and Forte believe that this description covers the material terms of the Merger and the Merger Agreement, it may not contain all of the information that is important to you. You should carefully read this entire proxy statement/prospectus/information statement for a more complete understanding of the Merger and the Merger Agreement, including the Merger Agreement attached as Annex A, the fairness opinion of Ladenburg attached as Annex B, and the other documents to which you are referred herein. See the section titled "Where You Can Find More Information" in this proxy statement/prospectus/information statement.

Background of the Merger

Tocagen is a clinical-stage, cancer-selective gene therapy biotechnology company focused on developing broadly applicable product candidates designed to activate a patient's immune system against their own cancer. Tocagen's cancer-selective gene therapy platform is built on Retroviral Replicating Vectors, which are designed to selectively deliver therapeutic genes into the DNA of cancer cells. Tocagen's gene therapy approach is designed to fight cancer through immunotherapeutic mechanisms of action without the autoimmune toxicities commonly experienced with other immunotherapies.

As part of the ongoing consideration and evaluation of its long-term prospects and strategies, the Tocagen Board frequently reviews, with Tocagen's management and outside advisors, strategic and financial alternatives in light of developments in Tocagen's business, the sectors in which it competes, the economy generally and financial markets, all with the goal of enhancing value for its stockholders and fighting cancer. As part of this process, from time to time, members of Company senior management and/or its advisors have engaged in business development and/or strategic discussions with industry participants.

Tocagen had been developing its lead product candidate, Toca 511 (vocimagene amiretrorepvec) & Toca FC (extended-release flucytosine), for the treatment of recurrent HGG, a brain cancer with limited treatment options, low survival rates and, therefore, a significant unmet medical need. Tocagen conducted a randomized, controlled Phase 3 clinical trial (Toca 5) of Toca 511 & Toca FC in patients with recurrent HGG, which was designed to serve as a registrational trial.

On September 11, 2019, at a regularly scheduled, in-person meeting, the Tocagen Board met in consultation with its management and representatives of Cooley. At this meeting, the Tocagen Board reviewed the failure of top-line Toca 5 clinical trial results to meet the primary endpoint of overall survival and discussed plans to review the data with regulatory authorities in the United States and Europe. Given the results, there also was a preliminary discussion of strategic options for Tocagen and management, including potential cost saving measures and financing alternatives.

On September 12, 2019, Tocagen announced that, at the final analysis, the Toca 5 trial missed the primary endpoint of overall survival compared to the standard of care treatment. In addition, all secondary endpoints showed no meaningful difference between the arms of the trial.

On October 1, 2019, at a special telephonic meeting, the Tocagen Board met in consultation with its management and representatives of Cooley. At this meeting, the Tocagen Board concluded that Toca 511 & Toca FC likely could not be approved in the United States or European Union without additional clinical trials that would require substantial capital and time to complete. Additionally, in an effort to preserve cash while assessing strategic options, the Tocagen Board approved a reduction of approximately 65% of its workforce.

On October 14, 2019, at a regularly scheduled, in-person meeting, the Tocagen Board met in consultation with its management and representatives of Cooley. At this meeting, the Tocagen Board and management

discussed Tocagen's projected cash runway; a potential liquidation; timeline for a potential strategic transaction; and various transaction considerations, including synergies and strategic considerations; current assets and their potential value, market opportunities and regulatory and clinical hurdles for Tocagen's assets. The Tocagen Board then approved the discontinuation of further development of Toca 511 & Toca FC and in light of this decision, determined to pursue all strategic alternatives, including a reverse merger, sale of the technology assets, primarily the Retroviral Replicating Vectors platform, including the lead program Toca 511 & Toca FC and related technologies, intellectual property and other assets , diagnostic assays, materials, data, manufacturing methods, know-how, trade secrets and equipment (the "RRV Platform Assets") and replicating vector and stem cell assets and related technologies, intellectual property and other related assets (the "RNV Platform Assets") as well as other non-cash assets (collectively, the "Company Assets") or other strategic transactions. In order to facilitate the review of strategic alternatives, the Tocagen Board decided to form a committee comprised of Faheem Hasnain, Franklin Berger and David Parkinson, each of whom is a nonexecutive, independent director and has expertise and experience in acquiring and selling companies (the "Strategic Transaction Committee"). The Tocagen Board then directed senior management and the Strategic Transaction Committee to vet and recommend a financial advisor to assist in the process. Following the board meeting, Tocagen also held discussions with four potential financial advisors with expertise in mergers and acquisitions in the pre-commercial biotechnology industry.

On October 7, 2019, in connection with the potential sale of the RRV Asset Platform, a Confidentiality Agreement was entered into between Tocagen and Denovo, which did not include a customary standstill provision or a don't ask, don't waive clause.

On October 18, 2019, in connection with the potential sale of the RNV Asset Platform, a Confidentiality Agreement was entered into between Tocagen and Party A, which included a customary standstill provision, which is still in effect, that contained a don't ask, don't waive clause but allowed Party A to privately and confidentially approach the Tocagen Board or senior management to make acquisition proposals during the standstill period.

On October 21, 2019, in connection with the potential sale of the RRV Asset Platform, a Confidentiality Agreement was entered into between Tocagen and Party B, which included a customary standstill provision, which is still in effect, that contained a don't ask, don't waive clause but allowed Party B to privately and confidentially approach the Tocagen Board or senior management to make acquisition proposals during the standstill period.

On October 22, 2019, the Strategic Transaction Committee had a telephonic meeting, during which the Strategic Transaction Committee reviewed and discussed four potential advisors and relevant qualifications, including the views of Tocagen management who had interviewed these potential advisors in person. The Strategic Transaction Committee additionally considered the location of the potential advisors, their eagerness to work on a potential strategic transaction, availability and responsiveness to requests from Tocagen management and experience in working on a wide range of strategic transactions including reverse mergers and private financings. Then, representatives of Ladenburg presented the advisor's qualifications to act as a financial advisor to the Strategic Transaction Committee. Ladenburg reviewed timelines for a potential strategic transaction, including a reverse merger and strategic partner selection criteria. Following these discussions, in a closed session, and based on Ladenburg's presentation and relevant industry experience, expertise and qualifications in reverse mergers and private financings, the absence of any discernible conflicts and productive meetings with Tocagen management, the Strategic Transaction Committee approved the engagement of Ladenburg and directed management to have Ladenburg send process letters to potential strategic partners, subject to management negotiating a satisfactory engagement letter and completion of reference checks.

On October 24, 2019, after completing a series of reference checks, Tocagen engaged Ladenburg, pursuant to which Ladenburg agreed to act as exclusive financial advisor to Tocagen to assist in the review of Tocagen's business and assets, and to explore strategic opportunities for enhancing stockholder value, including a reverse merger.

From mid-October 2019 through late November 2019, Ladenburg and Tocagen made outreach on a no-name basis to a broad selection of private and public companies in the life sciences industry. These companies consisted of private companies in the initial public offering ("IPO") queue, private companies not in the IPO queue, private companies that had failed in earlier attempts at an IPO, companies that might be interested in purchasing certain of the Company Assets, publicly traded ex-U.S. companies seeking a Nasdaq or New York Stock Exchange listing and also public companies in the U.S. that were believed to have a strategic fit with Tocagen or were seeking a merger transaction as a de facto financing event. A total of 148 companies were contacted as part of Ladenburg and Tocagen's outreach process. Of these companies, 107 were contacted for a potential reverse merger and 41 companies were contacted in connection with the potential sale of the Company Assets.

In evaluating potential merger partners, Ladenburg focused on companies with: (i) a perceived lower financing risk at closing, (ii) a strong product pipeline with multiple mid-to-late or commercial-stage assets, (iii) strong news flows, (iv) an experienced management team, (v) high-quality existing investors or new investors willing to support a potential transaction, (vi) a capital structure with no debt or a path to restructuring existing debt, and (vii) audited financial statements or the ability to produce audited financial statements for the last two fiscal years (collectively, the "Specified Criteria"). Prospective strategic partners were removed from consideration if their valuation was considered to be too high, they possessed a single asset in a high-risk space, or their management team was not viewed as prepared to operate as a publicly traded company following a potential transaction. Among the companies initially identified for the reverse merger transaction were Party C, Party D, and Party E. Forte was not included because Ladenburg believed Forte was pursuing a separate transaction.

In determining who to contact about purchasing the Company Assets, the Tocagen management team identified 100 companies across various biotech industry sectors, including (i) collaborative partners, (ii) parties who Tocagen previously had business development discussions with or that previously reached out to Company for business development discussions, (iii) companies in the brain cancer space, (iv) companies in the oncology space, (v) companies focused on rare or orphan diseases, (vi) immunotherapy companies, and (vii) gene and cell therapy companies. Among several companies identified for the sale of the Company Assets were Party B, Party F, Party G, Party H, and Party I.

On October 26, 2019, in connection with the reverse merger transaction, a Confidentiality Agreement was entered into between Tocagen and Party D, which included a customary standstill provision, which is still in effect, that contained a don't ask, don't waive clause but allowed Party D to privately and confidentially approach the Tocagen Board or senior management to make acquisition proposals during the standstill period.

On October 28, 2019, in connection with the reverse merger transaction, a Confidentiality Agreement was entered into between Tocagen and Party C, which included a customary standstill provision, which is still in effect, that contained a don't ask, don't waive clause but allowed Party C to privately and confidentially approach the Tocagen Board or senior management to make acquisition proposals during the standstill period.

On November 1, 2019, Party A was granted access to the dataroom.

On November 5, 2019 and November 12, 2019, the Strategic Transaction Committee held telephonic meetings, during which it reviewed timelines and activities with respect to the merger and the Company Asset sales processes.

On November 11, 2019, in connection with the reverse merger transaction, a Confidentiality Agreement was entered into between Tocagen and Party E, which included a customary standstill provision, which is still in effect, that contained a don't ask, don't waive clause but allowed Party E to privately and confidentially approach the Tocagen Board or senior management to make acquisition proposals during the standstill period.

On November 21, 2019, Ladenburg sent a process letter to Forte after learning that they were no longer engaged with a different transaction.

Later that day, on November 21, 2019, at a regularly scheduled, in-person meeting the Tocagen Board met in consultation with Tocagen management and representatives of Cooley and Ladenburg. Of the 148 companies contacted by Ladenburg during the outreach process, 107 companies were contacted for a reverse merger (of these companies, 29 companies received a process letter, 15 companies executed confidentiality agreements, and 9 submitted a proposal) and 41 companies were contacted for a potential sale of the Company Assets (of these companies, 15 companies executed confidentiality agreements, 8 companies received a process letter, and 6 submitted a proposal). Ladenburg reviewed the proposals received to date, the application of the proposed selection criteria to each of the potential strategic partners and the proposed financial terms offered by each of the parties.

Of the six companies that submitted proposals for the Company Assets, Party B, Party F and Party G submitted proposals to purchase the RRV Platform Assets and Party A, Party H and Party I submitted proposals to purchase the RNV Platform Assets.

Following the meeting, on November 21, 2019, Forte submitted a proposal to acquire Tocagen through a reverse merger.

On December 2, 2019, members of Tocagen management and representatives from Ladenburg met to review the various reverse merger proposals. Of the 10 proposals submitted to date, Tocagen's management instructed Ladenburg to have 4 reverse merger parties present to the Tocagen Board in San Diego on December 11, 2019, including Forte, Party C, Party D and Party E.

On December 3, 2019, the Strategic Transaction Committee met and reviewed timelines and activities with respect to the merger and Company Asset sales processes. Representatives from Ladenburg and Tocagen management discussed the recommended finalists with respect to the merger to present to the Board on December 11, 2019, which were Forte, Party C, Party D and Party E.

On December 6, 2019, a Confidentiality Agreement was entered into between Tocagen and Forte, which included a customary standstill provision, which is still in effect, that contained a don't ask, don't waive clause but allowed Company Forte to privately and confidentially approach the Tocagen Board or senior management to make acquisition proposals during the standstill period.

On December 10, 2019, the Strategic Transaction Committee met to discuss the sale of the RNV Platform Assets and to be updated on the merger process. At this meeting, the Strategic Transaction Committee determined to move forward on a potential sale of the RNV Platform with only Party A, due to its superior financial offer.

On December 11, 2019, Forte, Party C, Party D and Party E presented to the Tocagen Board, Tocagen management and representatives of Ladenburg. Based on these presentations and other considerations arising from a review of the potential for a successful strategic transaction, including assessment based upon the Specified Criteria, the Tocagen Board concluded that, of the 4 companies that presented, it would enter into a further phase of diligence and discussion regarding a potential strategic transaction with two companies, Forte Biosciences and Party E, with Forte identified as the most desired candidate based on Forte's product pipeline, proposed equity split, management team and ability to obtain financing. Next, the Tocagen Board discussed the potential sale of the Company Assets. After reviewing and discussing the proposals, and the fact that one of Party F's affiliates was Mr. Harry Gruber, a board member of Tocagen, Mr. Gruber recused himself from discussions related to the sale of the Company Assets. The Tocagen Board then determined to move forward with Party A for the sale of the RNV Platform Assets and Party B for the sale of the RRV Platform Assets.

On December 12, 2019, Tocagen entered into a term sheet with Party A for the sale of the RNV Platform Assets, which included a 3 month exclusivity period with an exception for discussions or negotiations as part of the acquisition of all or substantially all of the assets or securities of Tocagen.

Also, on December 12, 2019, Ladenburg contacted Party E and Forte to inform them of their selection as the lead candidates and outlined for each company a list of key topics that would be the focus of near-term diligence efforts.

On December 13, 2019, based on diligence, including the presentation from Party E, the challenges to financing Party E and the proposed exchange ratio, at the direction of Tocagen's management, Ladenburg sent a non-binding term sheet only to Forte. This term sheet proposed post-closing ownership split of 72.7% and 27.3% for Forte and Tocagen equityholders (on a treasury stock method basis), respectively, and proposed a concurrent financing of no less than $10.0 million to be dilutive proportionally to Forte and Tocagen. The term sheet also included the ability for Tocagen to sell the Company Assets and assumed an adjustment to the exchange ratio if Tocagen's net cash was less than $4.0 million or more than $6.0 million. Tocagen's ability to sell the Company Assets was included in the term sheet because Forte had attributed no value to the Company Assets in the proposal it submitted on November 21, 2019.

Tocagen continued diligence discussions and term sheet negotiations with Forte from December 12, 2019 through December 19, 2019. Negotiations focused on valuations and the concurrent financing in the case of the Forte and projected cash balance and liabilities in the case of Tocagen.

On December 15, 2019, Party F sent an indication of interest to purchase the RRV Platform, proposing a 30 day exclusivity period with an option to extend for an additional 30 days.

On December 16, 2019, representatives of Forte sent a revised draft term sheet to Ladenburg, which proposed a post-closing ownership split of 76.2% and 23.8% for Forte and Tocagen equityholders, respectively, an adjustment to the exchange ratio if Tocagen's net cash was less than $5.0 million or more than $7.5 million, a Tocagen net cash closing condition of $5.0 million and the acceleration or termination of all outstanding warrants to purchase Tocagen common stock and Tocagen options.

On December 17, 2019, Tocagen granted Forte data room access.

On December 17 and 18, 2019, Tocagen and Forte exchanged further comments on the proposed term sheet and agreed to a post-closing ownership split of 72.7% and 27.3% for Forte and Tocagen equityholders, respectively, an adjustment to the exchange ratio if Tocagen's net cash was less than $7.5 million or more than $10.0 million, a Tocagen net cash closing condition of $3.0 million and removed the requirement to accelerate or terminate the outstanding warrants to purchase Tocagen common stock and Tocagen options. Tocagen accepted the higher range of $7.5 million to $10.0 million in exchange for the lower net cash closing condition, which Tocagen management viewed as beneficial to Tocagen in case the Company Assets were not able to be sold.

On December 19, 2019, at a special telephonic meeting, the Tocagen Board met in consultation with Tocagen management and representatives of Cooley and Ladenburg and discussed the proposed term sheet with Forte. In that meeting, the Tocagen Board approved the term sheet with Forte, which included a 30 day exclusivity period with an exception for the sale of the Company Assets. Later that day, the term sheet was executed by the Tocagen and Forte.

On December 19, 2019, Party G sent an indication of interest to purchase the RRV Platform, proposing a 45 day exclusivity period. Party G had previously entered into a confidentiality agreement with the Tocagen on January 4, 2018, which did not include a standstill.

Also, on December 19, 2019, Tocagen granted Party B data room access.

On December 20, 2019, Party B sent an indication of interest to purchase the RRV Platform, which did not include a request for exclusivity.

On December 17, 2019 and December 20, 2019, the Strategic Transaction Committee held meetings to discuss bids for the Company Assets. Tocagen received three bids for the RRV Platform Assets from Party B,

Party F and Party G. After reviewing and discussing the proposals, and the fact that one of Party F's affiliate was Mr. Harry Gruber, a board member of Tocagen, the Strategic Transaction Committee approved Tocagen entering into a Term Sheet with Party B, having determined that the bid provided the most value to Tocagen's stockholders and that Party B had the financial resources and ability to close a deal quickly.

On December 21, 2019, Tocagen let Party B know that their indication of interest had been accepted and that the parties should move forward to negotiate a definitive agreement.

From December 23, 2019 through December 31, 2019, representatives of Party B conducted due diligence primarily through phone calls with members of Tocagen Board and senior management.

On December 24, 2019, Cooley provided a draft merger agreement to Forte and its outside counsel, WSGR.

On December 31, 2019, Party B notified Tocagen that it was not going forward with the transaction on the RRV Platform Assets because of their findings in due diligence.

On January 2, 2020, WSGR provided a revised draft of the merger agreement to Cooley. The draft included revisions including, among others, (a) removing Tocagen's ability to terminate for a Superior Offer, (b) setting the Forte termination fee equal to $500,000 and the Tocagen termination fee equal to $1.0 million, (c) requiring that Tocagen pay all of Forte's transaction expenses in the event the Tocagen Stockholder Matters are not approved at the Tocagen Stockholders' Meeting (the "Expense Reimbursement"), and (d) providing Forte with the ability (i) to engage in discussions regarding an acquisition proposal if such proposal was unsolicited and necessary under Forte's board's fiduciary obligations and (ii) terminate the merger agreement in connection with a Forte board adverse change recommendation (collectively, the "Forte Fiduciary Outs").

On January 2, 2020, Tocagen management updated the Strategic Transaction Committee regarding the sale of the RRV Asset Platform, including that Party B had terminated discussions for the RRV Platform Assets and that despite the potential conflict, Party F had the next best offer for the RRV Platform Assets based on the offer price and Tocagen management's belief a deal could be consummated quickly. That same day, Ladenburg reached out to Party F through email informing them that Tocagen would be willing to pursue a transaction with Party F.

On January 6, 2020, representatives of Party F contacted Tocagen and, between January 6 and January 8, 2020, a term sheet on the RRV Platform Assets was negotiated. The primary items negotiated included the length of the exclusivity period and the exclusion of the RNV Platform Assets. The parties agreed to a 30 day exclusivity period with an automatic extension for an additional 30 days if the parties were negotiating in good faith.

On January 6, 2020, Cooley provided an initial draft of the Support and Lock-Up Agreements to WSGR.

On January 8, 2020 the term sheet with Party F for the RRV Platform Assets was executed (the "Party F Term Sheet").

On January 9, 2020, at a special telephonic meeting, the Tocagen Board met in consultation with Tocagen management and representatives of Cooley and Ladenburg. Representatives of Ladenburg reviewed with the Tocagen Board the timeline for the completion of the Merger, and Tocagen management reviewed the current cash forecast (including the impact of a sale of the Company Assets) through the projected date of the completion of the Merger. The Tocagen Board also approved a plan to further reduce its employee base, whereby all of Tocagen's employees below the level of Vice President would be notified on January 16, 2020 that their employment would end on March 16, 2020.

On January 10, 2020, WSGR provided Cooley with a draft of the securities purchase agreement for the concurrent financing.

On January 10, 2020, Cooley provided a revised draft of the merger agreement to WSGR. The draft included revisions including, adding back Tocagen's ability to terminate for a Superior Offer and removing the Expense Reimbursement and the Forte Fiduciary Outs.

On January 14, Cooley provided WSGR with a revised draft of the securities purchase agreement, revising certain conditions to closing to increase deal certainty.

On January 15, 2020, Martin Duvall, Tocagen's Chief Executive Officer, Mark Foletta, Tocagen's Executive Vice President, Chief Financial Officer, and Paul Wagner, Forte's Chief Executive Officer met in San Francisco and discussed the transaction timeline, and the status of due diligence and the merger agreement. Mr. Wagner also updated the status of his investor meetings at the JP Morgan Healthcare Conference and the expected timing of executing the securities purchase agreement with certain investors. That same day, WSGR provided a revised draft of the merger agreement, which draft included revisions, including the Forte Fiduciary Outs.

On January 22, 2020, a telephonic meeting with representatives from Ladenburg, Mr. Duvall and Mr. Foletta and Mr. Wagner was held to discuss the status of Forte's financing and expected timing of execution of the securities purchase agreement.

Later that same day, on January 22, 2020, the Strategic Transaction Committee had a telephonic meeting to discuss the status of the potential Merger, including delays in Forte obtaining a signed securities purchase agreement, an update of the potential sales of the Company Assets and a review of the updated cash forecast.

On January 28 and 29, 2020 Mr. Duvall and Mr. Wagner exchanged multiple messages relating to the status of the Forte securities purchase agreements.

On January 30, 2020, Cooley provided a revised draft of the merger agreement to WSGR. The draft included revisions including, among others, adding back in Tocagen's ability to terminate for a Superior Offer and increasing the Forte termination fee to $750,000 in such event, capping the Expense Reimbursement at 50% of such expenses not to exceed $250,000 and accepting the Forte Fiduciary Outs on the conditions that (a) the Forte form of support agreement would not contain a provision releasing the Forte stockholders from their obligations thereunder upon a Forte board adverse change in recommendation (the "Forte Stockholder Out") and (b) increasing the Tocagen termination fee to $1.5 million upon a termination by Tocagen for certain Forte triggering events. That same day, WSGR provided a revised draft of the lockup agreement.

On February 3, 2020, Mr. Foletta and Mr. Wagner discussed the primary remaining issues in the merger agreement. These included the Forte Fiduciary Outs, break-up fees under different termination scenarios and the Expense Reimbursement.

That same day, WSGR provided a revised draft of the merger agreement to Cooley. The draft included revisions including, among others, increasing the Forte termination fee to $750,000 in all applicable events (not just upon as a result of a Superior Offer). WSGR also noted that Forte would require that the Forte Stockholder Out be included in the form of Forte Support Agreement.

On February 4, 2020, WSGR provided a revised draft of the form of Forte support agreement to Cooley. The draft included revisions including, among others, the inclusion of the Forte Stockholder Out requiring only 35% of the Forte common stock to be voted in favor of the Merger upon a Forte board adverse change in recommendation.

On February 7, 2020, Party F notified Mr. Duvall by email that the exclusivity was extended 30 days under the terms of the Party F Term Sheet.

On February 11, 2020, Cooley provided a revised draft of the merger agreement to WSGR. The draft included revisions including, among others, reverting back to a $500,000 Forte termination fee for all applicable events other than a Superior Offer (which remained at $750,000) and increasing the Tocagen termination fee to $3.0 million upon a termination by Tocagen for Forte triggering events. Cooley and WSGR continued to exchange drafts of the merger agreement until February 19, 2020.

On February 12, 2020, at a special telephonic meeting, the Tocagen Board met in consultation with Tocagen management and representatives of Cooley and Ladenburg. The status and timeline was reviewed with the remaining open items, including Forte's securities purchase agreement for its concurrent financing, the terms of the financing and the Board nominees from each of Forte and Tocagen. Representatives of Ladenburg then reviewed with the Tocagen Board Ladenburg's analysis of the Exchange Ratio for the conversion of Forte capital stock into Tocagen common stock. A representative of Cooley reviewed the key terms of the proposed transaction between Tocagen and Forte, including: structure and timing considerations; the formula for determining the Exchange Ratio for the conversion of Forte capital stock into Tocagen common stock as well as the relative percentages of ownership of the existing Tocagen equityholders, on the one hand, and the Forte equityholders, on the other hand, following the completion of the proposed transaction; the planned concurrent financing of Forte; the closing conditions in the merger agreement as well as the securities purchase agreement for Forte's planned concurrent financing; and the termination provisions and termination fees set forth in the merger agreement. Representatives from Cooley then reviewed with the Tocagen Board the fiduciary duties of the board members in the context of the proposed Transaction. During the various discussions, members of the Tocagen Board asked questions and discussed the terms and features of the proposed transaction, including provisions of the merger agreement and related documentation, as well as Tocagen's cash forecast (including the impact of a sale of the Company Assets) and ability to satisfy its obligations prior to the projected closing date in light of the net cash expectations contained in the merger agreement and its impact on the relative valuations and Exchange Ratio.

On February 16, 2020, WSGR provided a revised securities purchase agreement and form of warrant. WSGR and Cooley exchanged drafts on the Securities Purchase Agreement, warrant, support agreements and lockup agreements, finalizing each on February 19, 2020.

On February 19, 2020, at a special telephonic meeting, the Tocagen Board met in consultation with Tocagen management and representatives of Cooley and Ladenburg. The Tocagen Board was updated on Forte's financing and was informed that Forte had secured approximately $14.0 million in financing. The Tocagen Board was informed that the investors had negotiated for 100% warrant coverage, with an exercise price equal to that price per share of Tocagen common stock (after the conversion of such warrants in the Merger) wherein Tocagen's market value, after the Merger, would be $120 million. The warrants expire 30 days after the announcement of Forte's phase 2 clinical trial data planned for 2021. A representative of Ladenburg reviewed the impact of the financing and then rendered Ladenburg's oral opinion to the Tocagen Board, subsequently confirmed by delivery of a written opinion later that day, that subject to the assumptions, qualifications, limitations and other matters set forth therein, the Exchange Ratio was fair, from a financial point of view, to the Tocagen stockholders. After further discussion among the Tocagen Board, the board unanimously (i) determined that the Merger and the other transactions contemplated by the merger agreement were fair to, advisable and in the best interests of Tocagen and its stockholders, (ii) approved and declared advisable the merger agreement and the transactions contemplated thereby, including the authorization and issuance of shares of Tocagen common stock to the stockholders of Forte pursuant to the terms of the merger agreement, the change of control of Tocagen, and other actions contemplated by the merger agreement, and (iii) determined to recommend, upon the terms and subject to the conditions set forth in the merger agreement, that the Tocagen stockholders vote to approve the Closing Tocagen Stockholder Matters.

The Merger Agreement, Securities Purchase Agreement, Support Agreements and lockup agreements were signed later that day and a press release was issued after market close.

On February, 25, 2020, Company J submitted an unsolicited non-binding bid for the RRV Platform Assets.

On March 8, 2020, exclusivity with Party F ended without the parties being able to reach an agreement on terms and Tocagen began outreach to additional parties on March 9, 2020 with respect to the RRV Asset Platform including Party J and Denovo.

On March 9, 2020, in connection with the sale of the RRV Asset Platform, a Confidentiality Agreement was entered into between Tocagen and Party J, which included a customary standstill provision, which is still in effect, that contained a don't ask, don't waive clause but allowed Party J to privately and confidentially approach the Tocagen Board or senior management to make acquisition proposals during the standstill period. That same day, representatives of Tocagen met with Party J.

On March 10, 2020, Denovo contacted Tocagen about purchasing the RRV Platform Assets and was granted data room access that same day.

On March 12, 2020, exclusivity with Party A ended without the parties being able to reach an agreement on terms and Tocagen began outreach to additional parties on March 13, 2020 with respect to the RNV Asset Platform.

On March 13, 2020, Company J submitted a revised proposal to purchase the RRV Platform Assets.

On March 19, 2020, Party F submitted a revised offer for the RRV Platform Assets with an upfront purchase price significantly lower than was originally included in the Party F Term Sheet.

On March 20, 2020, the Strategic Transaction Committee had a telephonic meeting to discuss the status of the offers to purchase the RRV Platform Asset from Party F and Party J, as well as Denovo's potential interest. The Strategic Transaction Committee directed Tocagen management to continue working with each of the parties.

Between March 27, 2020 and April 3, 2020, Party F and Tocagen continued discussions around price and a financing condition that Party F requested.

On April 2, 2020, Party J informed Tocagen that they were unable to continue to pursue a transaction for the RRV Platform Assets on the terms of their initial offer and a price that was significantly lower than its initial offer, citing financing challenges related to the COVID-19 pandemic.

On April 3, 2020, each of Denovo and Party F were informed by Tocagen that the Tocagen Board would meet on April 7, 2020, and that the parties should present their best and final offers prior to this date. Each party submitted a final offer on April 6, 2020.

On April 7, 2020, at a special telephonic meeting, the Tocagen Board met to discuss the offers received from each of Denovo and Party F. Based on the price offered by each party and the financing contingency in Party F's bid, the Tocagen Board favored Tocagen management finalizing a definitive asset purchase agreement with Denovo. Later that day, Party F communicated to Company management that it would remove the financing contingency.

On April 9, 2020, Tocagen entered into an Asset Purchase Agreement with Abintus Bio, Inc., an entity co-founded by Party A, pursuant to which, among other things, Abintus agreed to acquire from Tocagen the RNV Platform Assets for $1,000,000.

That same day the Strategic Transaction Committee received updates from Tocagen management about the revised offer from Party F. The Strategic Transaction Committee directed Tocagen management to continue negotiating with Party F, as well as Denovo.

Between April 8, 2020 and April 15, 2020, Tocagen exchanged drafts of definitive asset purchase agreements with each of Party F and Denovo, negotiating with each party terms related to purchase price, post closing indemnity, and expense reimbursement.

On April 15, 2020, Party F withdrew from the process due to the parties' inability to reach satisfactory terms, including on price and timing.

On April 17, 2020, Tocagen entered into an Asset Purchase Agreement with Denovo (the "Denovo Purchase Agreement"), pursuant to which, Denovo agreed to acquire the RRV Platform Assets for $1.1 million (the "Denovo Transaction"). Under the terms of the Denovo Purchase Agreement, the Denovo Transaction will close upon the earlier of (a) immediately after the closing of the Merger and (b) promptly after the termination of the Merger Agreement.

Structure

Under the Merger Agreement, Merger Sub, a wholly owned subsidiary of Tocagen formed in connection with the Merger, will merge with and into Forte, with Forte surviving as a wholly owned subsidiary of Tocagen. Substantially concurrent with the completion of the Merger, Tocagen will be renamed "Forte Biosciences, Inc." and expects to trade on Nasdaq under the symbol "FBRX."

Tocagen Reasons for the Merger

At a meeting held on February 19, 2020, among other things, the Tocagen Board unanimously (i) determined that the Contemplated Transactions are fair to, advisable and in the best interests of Tocagen and its stockholders, (ii) approved and declared advisable the Merger Agreement and the Contemplated Transactions, including the authorization and issuance of shares of Tocagen Common Stock to the stockholders of Forte pursuant to the terms of the Merger Agreement, the change of control of Tocagen, and other actions contemplated by the Merger Agreement and (iii) determined to recommend, upon the terms and subject to the conditions set forth in the Merger Agreement, that the stockholders of Tocagen vote to approve the Tocagen Stockholder Matters.

The Tocagen Board considered the following reasons in reaching its conclusion to approve the Merger Agreement and the Merger, all of which the Tocagen Board viewed as supporting its decision to approve the business combination with Forte:

- the Tocagen Board and its financial advisor undertook a comprehensive and thorough process of reviewing and analyzing potential strategic transactions, including the sale of existing assets and reverse mergers to identify the opportunity that would, in the Tocagen Board's opinion, create the most value for Tocagen's stockholders.
- the Tocagen Board believes that, as a result of arm's length negotiations with Forte, Tocagen and its representatives negotiated the most favorable Exchange Ratio for Tocagen shareholders that Forte was willing to agree to, and that the terms of the Merger Agreement include the most favorable terms to Tocagen in the aggregate to which Forte was willing to agree.
- the Tocagen Board believes, after a thorough review of strategic alternatives and discussions with Tocagen senior management, financial advisors and legal counsel, that the Merger is more favorable to Tocagen's stockholders than the potential value that might have resulted from other strategic options available to Tocagen, including a liquidation of Tocagen and the distribution of any available cash.
- the Tocagen Board believes, based in part on a scientific diligence and analysis process conducted over several weeks by Tocagen's management and reviewed with the Tocagen Board, that with respect to Forte's product pipeline and the potential market opportunity for Forte's products, that Forte's product candidates represent a sizeable potential market opportunity, and may thereby create value for the stockholders of the combined organization and an opportunity for Tocagen's stockholders to participate in the potential growth of the combined organization.

- the Tocagen Board also reviewed with the management of Tocagen the current plans of Forte for developing FB-401 for treatment of atopic dermatitis to confirm the likelihood that the combined company would possess sufficient financial resources to allow the management team to focus on the continued development and anticipated commercialization of FB-401. The Tocagen Board also considered the possibility that the combined company would be able to take advantage of the potential benefits resulting from the combination of Tocagen's public company structure with Forte's business to raise additional funds in the future, if necessary.
- the Tocagen Board also considered the strength of the balance sheet of the combined company, which includes the cash that Forte currently holds, plus the gross proceeds from the Pre-Closing Financing of at least $14.0 million, in addition to the cash that Tocagen is expected to have in connection with the consummation of the Merger.
- the Tocagen Board also considered that the combined company will be led by an experienced industry chief executive and a board of directors with representation from the current boards of directors of Tocagen and Forte.
- the Tocagen Board considered Ladenburg's presentation and its opinion to the Tocagen Board as to the fairness, from a financial point of view, to Tocagen of the Exchange Ratio, as more fully described below under the caption "*The Merger—Opinion of the Tocagen Financial Advisor*."

The Tocagen Board also reviewed various reasons impacting the financial condition, results of operations and prospects of Tocagen, including:

- The Tocagen Board and Ladenburg have undertaken a comprehensive and thorough process of reviewing and analyzing the potential merger transaction as well as reaching out to candidates for a variety of strategic transactions to identify the opportunity that would, in the Tocagen Board's opinion, create the most value for its stockholders;
- The Tocagen Board believes that, as a result of arm's length negotiations with Forte, Tocagen and its representatives negotiated the most favorable exchange ratio that Forte was willing to agree to, and that the terms of the Merger Agreement include the most favorable terms to Tocagen in the aggregate to which Forte was willing to agree;
- The Tocagen Board believes, after a thorough review of strategic alternatives and Tocagen's discussions with its financial advisors and legal counsel, as well as Tocagen management's discussions with Forte's senior management, that, compared to the Merger, no alternatives or other strategic options that may have been available to Tocagen, including remaining a standalone public company, were reasonably likely to create greater value for Tocagen's stockholders;
- the consequences of Tocagen's Phase 3 clinical trial of Toca 511 & Toca FC failing to meet its primary or secondary endpoints and the likelihood that Tocagen's prospects as a stand-alone company were unlikely to change for the benefit of Tocagen's stockholders in the foreseeable future;
- the risks associated with the need to obtain substantial amounts of financing to continue its operations and to continue the development of its gene therapy programs if Tocagen were to remain an independent company;
- the risks and delays associated with, and uncertain value and costs to Tocagen's stockholders of, liquidating Tocagen, including, without limitation, the uncertainties of continuing cash burn while contingent liabilities are resolved and uncertainty of timing of release of cash until contingent liabilities are resolved;
- The fact that the liquidation of the Tocagen would result in a payment of between $0.14 and $0.36 per share of Tocagen Common Stock, representing between $0.23 and $0.30 less per share than the value of the Exchange Ratio on a per share basis; and
- Tocagen's potential inability to maintain its listing on Nasdaq without completing the Merger.

The Tocagen Board also reviewed the terms and conditions of the Merger Agreement and related transactions, as well as the safeguards and protective provisions included therein intended to mitigate risks, including:

- the initial estimated Exchange Ratio used to establish the number of shares of Tocagen Common Stock to be issued to Forte's stockholders in the Merger was determined based on the relative valuations of Tocagen and Forte, and thus the relative percentage ownership of Tocagen's stockholders and Forte's stockholders immediately following the completion of the Merger is subject to change based on the amount of Tocagen Net Cash;
- the limited number and nature of the conditions to Forte's obligation to consummate the Merger and the limited risk of non-satisfaction of such conditions as well as the likelihood that the Merger will be consummated on a timely basis;
- the respective rights of, and limitations on, Tocagen and Forte under the Merger Agreement to consider certain unsolicited Acquisition Proposals under certain circumstances should Tocagen or Forte receive a superior offer;
- the reasonableness of the potential termination fee (i) of up to $750,000 and related reimbursement of up to 50% of certain transaction expenses capped at $250,000, which could become payable by Tocagen if the Merger Agreement is terminated in certain circumstances and (ii) of up to $3.0 million, which could become payable by Forte if the Merger Agreement is terminated in certain circumstances;
- the support agreements, pursuant to which certain directors, officers and stockholders of Tocagen and Forte have agreed, solely in their capacity as stockholders of Tocagen and Forte, respectively, to vote all of their shares of Tocagen Common Stock or Forte Capital Stock in favor of the approval or adoption, respectively, of the Merger Agreement;
- the agreement of Forte to provide the written consent of Forte stockholders necessary to adopt the Merger Agreement thereby approving the Merger and related transactions within three business days of this Registration Statement becoming effective;
- the belief that the terms of the Merger Agreement, including the parties' representations, warranties and covenants, and the conditions to their respective obligations, are reasonable under the circumstances; and
- Tocagen's right to sell assets related to Toca 511, Toca Fc, the RRV platform, cell lines, reagents and assays, in Vivo Car-T Technology and immortal MSC technology, subject to certain limitations and include cash proceeds as part of the Tocagen Net Cash calculation.

In the course of its deliberations, the Tocagen Board also considered a variety of risks and other countervailing factors related to entering into the Merger, including:

- (i) the $500,000 termination fee payable by Tocagen to Forte upon the occurrence of certain events, (ii) the $750,000 termination fee payable by Tocagen to Forte in the event of a termination by Tocagen in connection with entering into a definitive agreement in connection with a superior offer, (iii) up to $250,000 in expense reimbursement payable by Tocagen to Forte in the event of a termination by Forte in connection with the Tocagen Stockholder Matters not being approved at the Tocagen special meeting, and (iv) the potential effect of the fees describe in clauses (i) – (iii) in deterring other potential acquirers from proposing an alternative transaction that may be more advantageous to Tocagen's stockholders;
- the substantial expenses to be incurred in connection with the Merger, including the costs associated with any related litigation;
- the possible volatility, at least in the short term, of the trading price of Tocagen Common Stock resulting from the announcement of the Merger;

- the risk that the Merger might not be consummated in a timely manner or at all and the potential adverse effect of the public announcement of the Merger or delay or failure to complete the Merger on the reputation of Tocagen;
- the likely detrimental effect on Tocagen's cash position, stock price and ability to initiate another process and to successfully complete an alternative transaction should the Merger not be completed;
- the risk to Tocagen's business, operations and financial results in the event that the Merger is not consummated, including the diminution of Tocagen's cash and the significant challenges associated with the need to raise additional capital through the public or private sale of equity securities;
- the likelihood of disruptive stockholder litigation following announcement of the Merger;
- the early-stage clinical data of Forte's product candidates, which, in the future, may not be successfully developed into products that are marketed and sold;
- the strategic direction of the combined company following the completion of the Merger, which will be determined by a board of directors initially comprised of a majority of the directors designated by Forte; and
- various other risks associated with the combined organization and the Merger, including those described in the section titled "*Risk Factors*" beginning on page 26 of this proxy statement/prospectus/information statement.

The foregoing information and factors considered by the Tocagen Board are not intended to be exhaustive but are believed to include all of the material factors considered by the Tocagen Board. In view of the wide variety of reasons considered in connection with its evaluation of the Merger and the complexity of these matters, the Tocagen Board did not find it useful to attempt, and did not attempt, to quantify, rank or otherwise assign relative weights to these reasons. In considering the reasons described above, individual members of the Tocagen Board may have given different weight to different reasons. The Tocagen Board conducted an overall analysis of the factors described above, including thorough discussions with, and questioning of, Tocagen's management team, the legal and financial advisors of Tocagen, and considered the reasons overall to be favorable to, and to support, its determination.

Forte Reasons for the Merger

In the course of reaching its decision to approve the Merger, the Forte Board consulted with its senior management, financial advisors and legal counsel, reviewed a significant amount of information and considered numerous reasons, including, among others:

- Forte's need for capital to support the clinical development of its product candidates and the potential to access public market capital, including sources of capital from a broader range of investors than it could otherwise obtain if it continued to operate as a privately-held company;
- the expectation that the Merger would be a more time- and cost-effective means to access capital than other options considered;
- the potential to provide its current stockholders with greater liquidity by owning stock in a public company;
- the fact that shares of Tocagen Common Stock issued to Forte stockholders will be registered pursuant to a registration statement on Form S-4 by Tocagen and will become freely tradable by Forte's stockholders who are not affiliates of Forte and who are not parties to lock-up agreements;
- the likelihood that the Merger will be consummated on a timely basis;
- the terms and conditions of the Merger Agreement, including, without limitation, the following:
- the determination that the Exchange Ratio (subject to adjustment based upon the proceeds from the Pre-Closing Financing and Tocagen Net Cash) that is not subject to adjustment based on trading prices

is appropriate to reflect the expected relative percentage ownership of Tocagen's stockholders and Forte's stockholders (including the Forte stockholders purchasing shares sold in the Pre-Closing Financing) based on the judgment of the Forte Board;

- the expectation that the Merger will qualify as a transaction described under Section 368(a) of the Code for U.S. federal income tax purposes, with the result that Forte's stockholders will generally not recognize taxable gain or loss for U.S. federal income tax purposes upon the exchange of Forte Common Stock for Tocagen Common Stock pursuant to the Merger;
- the rights of Forte under the Merger Agreement to consider certain unsolicited competing proposals under certain circumstances should Forte receive a Superior Proposal; and
- the conclusion of the Forte Board that the potential termination fee of $500,000, or $750,000 under certain circumstances, and/or expense reimbursements of up to $250,000, payable by Tocagen to Forte and the circumstances when such fee may be payable, were reasonable.

The Forte Board also considered a number of uncertainties and risks in its deliberations concerning the Merger and the Contemplated Transactions, including the following:

- the risk that the Merger might not be completed in a timely manner, or at all, and the potential adverse effect of the public announcement of the Merger or delay or failure to complete the Merger on the reputation of Forte and the ability of Forte to obtain financing in the future;
- the termination fee of $1.0 million, or $3.0 million under certain circumstances, payable by Forte to Tocagen upon the occurrence of certain events, and the potential effect of such termination fee in deterring other potential acquirers from proposing a competing transaction that may be more advantageous to Forte's stockholders;
- the expenses to be incurred in connection with the Merger and related administrative challenges associated with combining the companies;
- the additional public company expenses and obligations that Forte's business will be subject to following the Merger to which it has not previously been subject; and
- various other risks associated with the company and the Merger, including the risks described in the section entitled "*Risk Factors*" beginning on page 26 of this proxy statement/prospectus/information statement.

The foregoing information and factors considered by the Forte Board are not intended to be exhaustive but are believed to include all of the material factors considered by the Forte Board. In view of the wide variety of reasons considered in connection with its evaluation of the Merger and the complexity of these matters, the Forte Board did not find it useful, and did not attempt, to quantify, rank or otherwise assign relative weights to these reasons. In considering the reasons described above, individual members of the Forte Board may have given different weight to different reasons. The Forte Board conducted an overall analysis of the reasons described above, including thorough discussions with, and questioning of, Forte's management and Forte's legal advisors, and considered the reasons overall to be favorable to, and to support, its determination.

Tocagen's Unaudited Financial Projections Regarding Forte

As a matter of course, Tocagen does not publicly disclose long-term projections of future financial results due to the inherent unpredictability and subjectivity of underlying assumptions and estimates. However, in connection with the Tocagen Board's evaluation of the Merger, preliminary internal financial projections for Forte were prepared by the management of Forte and provided to the management of Tocagen, and then adjusted by the management of Tocagen (such adjusted projections, the "Tocagen-prepared Forte financial projections") solely for use by Ladenburg in connection with the rendering of its fairness opinion and performing its related financial analyses, as described below under "*The Merger—Opinion of the Tocagen Financial Advisor.*" A summary of the Tocagen-prepared Forte financial projections is set forth below.

The inclusion of the Tocagen-prepared Forte financial projections should not be deemed an admission or representation by Tocagen, Ladenburg, Forte or any of their respective officers, directors, affiliates, advisors, or other representatives with respect to such Tocagen-prepared Forte financial projections. The Tocagen-prepared Forte financial projections are not included to influence your views on the Merger and are summarized in this proxy statement/prospectus/information statement solely to provide stockholders access to certain non-public information considered by the Tocagen Board in connection with its evaluation of the Merger and provided to Tocagen's financial advisor, Ladenburg, to assist with its financial analyses as described in the section titled "*The Merger—Opinion of the Tocagen Financial Advisor*." The information from the Tocagen-prepared Forte financial projections should be evaluated, if at all, in conjunction with the historical financial statements and other information regarding Tocagen and Forte in this proxy statement/prospectus/information statement.

The Tocagen-prepared Forte financial projections were not prepared with a view toward public disclosure, nor were they prepared with a view toward compliance with published guidelines of the SEC, the guidelines established by the American Institute of Certified Public Accountants for preparation and presentation of prospective financial information, or U.S. GAAP. Neither the independent registered public accounting firm of Tocagen nor Forte nor any other independent accountant has audited, reviewed, compiled, examined or performed any procedures with respect to the accompanying unaudited prospective financial information for the purpose of its inclusion herein, and accordingly, neither the independent registered public accounting firm of Tocagen nor Forte nor any other independent accountant expresses an opinion or provides any form of assurance with respect thereto for the purpose of this proxy statement/prospectus/information statement. Tocagen-prepared Forte financial projections include unlevered free cash flow, which is a non-U.S. GAAP financial measure.

The financial projections prepared by Forte and supplied to Tocagen were prepared solely for internal use as part of Forte's ongoing strategic planning processes and are subjective in many respects. As a result, the Tocagen-prepared Forte financial projections, after being revised by Tocagen, are susceptible to multiple interpretations and periodic revisions based on actual experience and business developments. Although Forte and Tocagen believe their respective assumptions to be reasonable, all financial projections are inherently uncertain, and Forte and Tocagen expect that differences will exist between actual and projected results. Although presented with numerical specificity, the Tocagen-prepared Forte financial projections reflect numerous variables, estimates, and assumptions made by Forte's and Tocagen's respective management at the time such projections were prepared by Forte and adjusted by Tocagen, and also reflect general business, economic, market, and financial conditions and other matters, all of which are difficult to predict and many of which are beyond Forte's and Tocagen's control. In addition, the Tocagen-prepared Forte financial projections cover multiple years, and this information by its nature becomes subject to greater uncertainty with each successive year. Accordingly, there can be no assurance that the estimates and assumptions made in preparing the Tocagen-prepared Forte financial projections will prove accurate or that any of the Tocagen-prepared Forte financial projections will be realized.

The Tocagen-prepared Forte financial projections included certain assumptions relating to, among others things, Forte's and Tocagen's respective expectations, which may not prove to be accurate, relating to the business, earnings, cash flow, assets, liabilities and prospects of Forte.

The Tocagen-prepared Forte financial projections assume, among other things, (i) that FB-401 will only be available to the United States market, (ii) that FB-401 will launch in 2024 for atopic dermatitis for mild and moderate cases, (iii) stock based compensation is excluded from the discounted cash flow analysis and (iv) a 32.5% probability of success in the years 2022 to 2031 based on FB-401's clinical phase of development.

The Tocagen-prepared Forte financial projections are subject to many risks and uncertainties and you are urged to review the section titled "*Risk Factors*" beginning on page 26 of this proxy statement/prospectus/information statement for a description of risk factors relating to the Merger and Forte's business. You should also read the section titled "*Cautionary Note Concerning Forward-Looking Statements*" beginning on page 98 of this proxy statement/prospectus/information statement for additional information regarding the risks inherent in forward-looking information such as the Tocagen-prepared Forte financial projections.

The inclusion of the Tocagen-prepared Forte financial projections herein should not be regarded as an indication that Forte, Tocagen, Ladenburg or any of their respective affiliates or representatives considered or consider the Tocagen-prepared Forte financial projections to be necessarily indicative of actual future events, and the Tocagen-prepared Forte financial projections should not be relied upon as such. The Tocagen-prepared Forte financial projections do not take into account any circumstances or events occurring after the date they were prepared. Tocagen and the combined company do not intend to, and disclaim any obligation to, update, correct, or otherwise revise the Tocagen-prepared Forte financial projections to reflect circumstances existing or arising after the date the Tocagen-prepared Forte financial projections were generated or to reflect the occurrence of future events, even in the event that any or all of the assumptions or other information underlying the Tocagen-prepared Forte financial projections are shown to be in error. Furthermore, the Tocagen-prepared Forte financial projections do not take into account the effect of any failure of the Merger to be consummated and should not be viewed as accurate or continuing in that context.

In light of the foregoing factors and the uncertainties inherent in financial projections, stockholders are cautioned not to place undue reliance, if any, on the Tocagen-prepared Forte financial projections.

The following table, which is subject to the financial projection statements above, presents a selected summary of the Tocagen-prepared Forte financial projections that were made available to Ladenburg and the Tocagen Board.

Years	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Revenue	—	—	—	—	$ 65.1	$203.7	$389.7	$606.2	$821.8	$948.4	$1,064.5	$1,196.9
Net Cash Flows from Operations	($11.7)	($ 5.2)	($14.4)	($62.5)	($24.2)	$ 46.4	$177.5	$387.1	$547.5	$644.1	$ 710.9	$ 830.9
Unlevered Free Cash Flow	($11.7)	($ 5.2)	($14.4)	($62.5)	($24.2)	$ 33.4	$127.8	$278.7	$394.2	$463.7	$ 511.9	$ 598.3
Risk Adjusted Unlevered Free Cash Flow	($11.7)	($ 5.2)	($ 4.7)	($20.3)	($ 7.9)	$ 10.8	$ 41.5	$ 90.6	$128.1	$150.7	$ 166.4	$ 194.4

Opinion of the Tocagen Financial Advisor

As stated above, pursuant to an engagement letter dated October 24, 2019, Tocagen retained Ladenburg to act as a financial advisor in connection with the Merger and to render the Opinion to the Tocagen Board as to the fairness of the Exchange Ratio, from a financial point of view, to the stockholders of Tocagen. On February 19, 2020, at the request of the Tocagen Board, Ladenburg rendered the oral opinion, subsequently confirmed by delivery of the written opinion dated February 19, 2020, to the Tocagen Board, that the Exchange Ratio was fair, from a financial point of view, to the stockholders of Tocagen as of the date of such Opinion and based upon the various assumptions, qualifications and limitations set forth therein.

The full text of the Opinion is attached as Annex B to this proxy statement/prospectus/information statement and is incorporated by reference. Tocagen encourages its stockholders to read the Opinion in its entirety for the assumptions made, procedures followed, other matters considered and limits of the review by Ladenburg. The summary of the Opinion set forth herein is qualified by reference to the full text of the Opinion. Ladenburg provided its Opinion for the sole benefit and use by the Tocagen Board in its consideration of the Merger. The Opinion is not a recommendation to the Tocagen Board or to any stockholder as to how to vote with respect to the proposed Merger or to take any other action in connection with the Merger or otherwise.

In connection with the Opinion, Ladenburg took into account an assessment of general economic, market and financial conditions as well as its experience in connection with similar transactions and securities valuations generally and, among other things:

- Reviewed a draft dated February 19, 2020 of the Merger Agreement, which was the most recent draft made available to Ladenburg prior to the delivery of the Opinion;

- Reviewed and analyzed certain publicly available financial and other information for each of Tocagen and Forte, respectively, including equity research on comparable companies and on Tocagen, and certain other relevant financial and operating data furnished to Ladenburg by the management of Tocagen, including information Tocagen obtained from Forte;
- Reviewed and analyzed certain relevant historical financial and operating data concerning Forte furnished to Ladenburg by the management of Tocagen, which Tocagen obtained from Forte;
- Discussed with certain members of the management of Tocagen the historical and current business operations, financial condition and prospects of Tocagen and Forte;
- Reviewed and analyzed certain operating results of Forte as compared to operating results and the reported price and trading histories of certain publicly traded companies that Ladenburg deemed relevant;
- Reviewed and analyzed certain internal financial analyses, projections as to cost and expenses, reports, preliminary internal market opportunity assumptions and other information concerning Forte prepared by the management of Forte as well as projections for Forte prepared and adjusted by the management of Tocagen which was then provided to us and utilized by us upon instruction of Tocagen;
- Reviewed and analyzed certain financial terms of the Merger Agreement as compared to the publicly available financial terms of certain selected business combinations that Ladenburg deemed relevant;
- Reviewed and analyzed certain financial terms of completed initial public offerings for certain companies that we deemed relevant;
- Reviewed certain pro forma financial effects of the Merger;
- Reviewed and analyzed such other information and other factors, and conducted such other financial studies, analyses and investigations as Ladenburg deemed relevant for the purposes of the Opinion; and
- Took into account Ladenburg's experience in other transactions, as well as its experience in securities valuations and general knowledge of the industry in which Forte operates.

In conducting Ladenburg's review and arriving at Ladenburg's Opinion, Ladenburg has, with Tocagen's consent, assumed and relied, without independent investigation, upon the accuracy and completeness of all financial and other information provided to Ladenburg by Tocagen and Forte, respectively, or which is publicly available or was otherwise reviewed by Ladenburg. Ladenburg has not undertaken any responsibility for the accuracy, completeness or reasonableness of, or independent verification of, such information. Ladenburg has relied upon, without independent verifications, the assessment of Tocagen management and Forte management as to the viability of, and risks associated with, the current and future products and services of Forte (including without limitation, the development, testing and marketing of such products and services, the receipt of all necessary governmental and other regulatory approvals for the development, testing and marketing thereof, and the life and enforceability of all relevant patents and other intellectual and other property rights associated with such products and services). In addition, Ladenburg has not conducted, nor have assumed any obligation to conduct, any physical inspection of the properties or facilities of Tocagen or Forte. Ladenburg has been instructed by Tocagen, and has assumed, with Tocagen's consent, that Tocagen Net Cash at the closing of the Merger will be $7.5 million, assuming the disposition of the Company Assets. Furthermore, Tocagen has assumed, with Tocagen's consent, that there will be no further adjustments to the Exchange Ratio between the date hereof and the date the final Exchange Ratio is determined, unless the Tocagen Net Cash at the closing of the Merger is less than $7.5 million or greater than $10.0 million. Ladenburg has further been advised that Tocagen may sell certain legacy Tocagen assets, technology and intellectual property (the "Legacy Assets"). It is understood that the net cash proceeds received by, or due to, Tocagen within 90 days of the closing of the Merger in any such sale or license of the Legacy Assets entered into prior to the closing of the Merger, would be added to Tocagen Net Cash. Ladenburg has therefore assumed that the only value attributed to Tocagen will be its net cash and the value of its Nasdaq listing. With respect to the financial forecasts supplied to Ladenburg by Tocagen

regarding Forte, Ladenburg has, with Tocagen's consent, assumed that the financial forecasts were reasonably prepared on the basis reflecting the best currently available estimates and judgments of the management of Tocagen and Forte, as applicable, as to the future operating and financial performance of Forte and that the financial forecasts provided a reasonable basis upon which Ladenburg could form its Opinion.

Ladenburg expressly disclaimed any undertaking or obligation to advise any person of any change in any fact or matter affecting Ladenburg's Opinion of which Ladenburg has become aware after the date of its Opinion. Ladenburg assumed there were no material changes in the assets, liabilities, financial condition, results of operations, business or prospects of Tocagen or Forte since the date of the last financial statements made available to Tocagen. Ladenburg did not make or obtain any independent evaluations, valuations or appraisals of the assets or liabilities of Tocagen or Forte, nor was Ladenburg furnished with such materials. In addition, Ladenburg did not evaluate the solvency or fair value of Tocagen or Forte under any state or federal laws relating to bankruptcy, insolvency or similar matters. Ladenburg's Opinion does not address any legal, tax or accounting matters related to the Merger Agreement or the Merger, as to which Ladenburg has assumed that Tocagen and the Tocagen Board have received such advice from legal, tax and accounting advisors as each has determined appropriate. Ladenburg's Opinion addresses only the fairness of the Exchange Ratio, from a financial point of view, to the stockholders of Tocagen. Ladenburg expresses no view as to any other aspect or implication of the Merger or any other agreement, arrangement or understanding entered into in connection with the Merger or otherwise, and Ladenburg expressed no opinion as to the terms of the Pre-Closing Financing. Ladenburg's Opinion is necessarily based upon economic and market conditions and other circumstances as they existed and could be evaluated by Ladenburg on the date of its Opinion. It should be understood that although subsequent developments may affect Ladenburg's Opinion, Ladenburg does not have any obligation to update, revise or reaffirm its Opinion and Ladenburg expressly disclaims any responsibility to do so.

Ladenburg did not consider any potential legislative or regulatory changes currently being considered or recently enacted by the United States or any foreign government, or any domestic or foreign regulatory body, or any changes in accounting methods or generally accepted accounting principles that may be adopted by the SEC, the Financial Accounting Standards Board, or any similar foreign regulatory body or board.

For purposes of rendering the Opinion, Ladenburg assumed in all respects material to Ladenburg's analysis, that the representations and warranties of each party contained in the Merger Agreement were true and correct, that each party will perform all of the standards of the covenants and agreements required to be performed by it under the Merger Agreement and that all conditions to the consummation of the Merger will be satisfied without waiver thereof. Ladenburg assumed that the final form of the Merger Agreement was substantially similar to the last draft reviewed by Ladenburg. Ladenburg also assumed that all governmental, regulatory and other consents and approvals contemplated by the Merger Agreement will be obtained and that in the course of obtaining any of those consents no restrictions will be imposed or waivers made that would have an adverse effect on the contemplated benefits of the Merger. Ladenburg assumed that the Merger will be consummated in a manner that complies with the applicable provisions of the Securities Act, the Exchange Act and all other applicable federal and state statutes, rules and regulations. Tocagen informed Ladenburg, and Ladenburg assumed, that the Merger will be treated as a tax-free reorganization within the meaning of 368(a) of the Code.

It is understood that the Ladenburg Opinion is intended for the benefit and use of the Tocagen Board in its consideration of the financial terms of the Merger (except as set forth in the engagement letter (as described below)). Ladenburg's Opinion does not constitute a recommendation to the Tocagen Board on whether or not to approve the Merger or to any stockholder or any other person as to how to vote with respect to the Merger or to take any other action in connection with the Merger or otherwise. The Opinion does not address the Company's underlying business decision to proceed with the Merger or the relative merits of the Merger compared to other alternatives available to the Company. Ladenburg expresses no opinion as to the prices or ranges of prices at which shares of securities of any person, including Tocagen, will trade at any time, including following the announcement or consummation of the Merger. Ladenburg has not been requested to opine as to, and the Opinion does not in any manner address, the amount or nature of compensation to any of the officers, directors or

employees of any party to the Merger, or any class of such persons, relative to the compensation to be paid to the holders of Tocagen Common Stock in connection with the Merger or with respect to the fairness of any such compensation.

The issuance of the Opinion was approved by a fairness opinion committee of Ladenburg. The Opinion may not be published or otherwise used or referred to, nor shall any public reference to Ladenburg be made, without Ladenburg's prior written consent.

Principal Financial Analyses

The following is a summary of the principal financial analyses performed by Ladenburg to arrive at its Opinion. Some of the summaries of financial analyses include information presented in tabular format. In order to fully understand the financial analyses, the tables must be read together with the text of each summary. The tables alone do not constitute a complete description of the financial analyses. Considering the data set forth in the tables without considering the full narrative description of the financial analyses, including the methodologies and assumptions underlying the analyses, could create a misleading or incomplete view of the financial analyses. Ladenburg performed certain procedures, including each of the financial analyses described below and reviewed with the Tocagen Board the assumptions on which such analyses were based and other factors, including the historical and projected financial results of Tocagen and Forte.

Transaction Overview as of the Date of the Opinion

Based upon the Exchange Ratio of 1.7514 at the time of the signing of the Merger Agreement, it was estimated that at the closing: (a) Forte equity holders as of immediately prior to the Merger (including the shares issued in the approximately $14 million Pre-Closing Financing) will own approximately 74.5% of the Fully Diluted Closing Tocagen Common Stock, and (b) the Tocagen equity holders as of immediately prior to the Merger (excluding for this purpose certain out-of-the-money Tocagen options) will own approximately 25.5% of the Fully Diluted Closing Tocagen Common Stock, in each case, subject to adjustment of the Exchange Ratio as set forth in the Merger Agreement and described herein.

Implied Equity Value

Ladenburg estimated an implied equity value for Forte of approximately $44 million, which was calculated by multiplying 40,700,140 (the shares of Forte outstanding including the shares issued in the Pre-Closing Financing) by $1.0783 (the implied price per share of Forte Common Stock). These combined shares represent the assumed Forte shares as of the signing of the Merger Agreement (on a fully-diluted, as-converted treasury stock method basis and after giving effect to the Pre-Closing Financing).

Implied Total Enterprise Value

For purposes of the Opinion, Ladenburg calculated an implied total enterprise value for Forte of $30.0 million by subtracting an assumed Forte net cash balance of approximately $14 million (to be raised in the Pre-Closing Financing) from the implied equity value of approximately $44 million, which was based on Forte's projected indebtedness, cash and cash equivalents at closing.

Analysis of Selected Initial Public Offering Transactions

Ladenburg reviewed certain publicly available information for the IPOs of 11 dermatology focused biopharmaceutical companies which have completed an IPO since January 2014 and whose lead product at the time of IPO was in pre-clinical through Phase 2 stage of clinical development. Although the companies referred to below were used for comparison purposes, none of these companies are directly comparable to Forte. Accordingly, an analysis of the results of such a comparison is not purely mathematical, but instead involves

complex considerations and judgments concerning differences in historical and projected financial and operating characteristics of the selected companies below. These companies, which are referred to as the "Selected Precedent IPO Companies," were:

- Aclaris Therapeutics, Inc.
- Anaptys Bio, Inc.
- Cara Therapeutics, Inc.
- Dermira, Inc.
- Evelo Biosciences, Inc.
- Foamix Pharmaceuticals Ltd.
- Hoth Therapeutics, Inc.
- Kiniksa Pharmaceuticals, Ltd.
- Krystal Biotech, Inc.
- Menlo Therapeutics Inc.
- Sienna Biopharmaceuticals, Inc.

The total enterprise value at IPO is defined as the pre-money equity value plus indebtedness, liquidation value of preferred stock and non-controlling interest, minus cash and cash equivalents at the time of its IPO. The Selected Precedent IPO Companies had total enterprise values between $45 million and $498 million. Ladenburg derived a median total enterprise value of $168 million for the Selected Precedent IPO Companies. Using the 25th percentile and the 75th percentile of the implied total enterprise values, Ladenburg then calculated a range of implied total equity values for Forte (by adding an estimated $13.9 million in cash at closing), which was $111.3 million to $199.0 million. This compares to Forte's implied equity value as per the Merger Agreement of approximately $43.9 million.

Selected Precedent IPO Companies

First Trade Date	Issuer	Enterprise Value ($M)
2/15/2019	Hoth Therapeutics, Inc.	$45.0
5/23/2018	Kiniksa Pharmaceuticals, Ltd.	498.2
5/8/2018	Evelo Biosciences, Inc.	315.2
1/24/2018	Menlo Therapeutics Inc.	180.2
9/19/2017	Krystal Biotech, Inc.	45.3
7/26/2017	Sienna Biopharmaceuticals, Inc.	189.9
1/25/2017	AnaptysBio, Inc.	168.6
10/6/2015	Aclaris Therapeutics, Inc.	116.6
10/2/2014	Dermira, Inc.	127.5
9/17/2014	Foamix Pharmaceuticals Ltd.	78.2
1/30/2014	Cara Therapeutics, Inc.	167.5

Analysis of Selected Publicly Traded Companies

Based on its experience and professional judgment and using financial screening sources and databases to find companies that share similar business characteristics to Forte within the biopharmaceutical industry, Ladenburg selected financial data of six publicly traded companies (the "Selected Publicly Traded Companies"). Each of the Selected Publicly Traded Companies had a lead candidate in pre-clinical through Phase 2 stage of

clinical development and focused on the dermatology space. Although the companies referred to below were used for comparison purposes, none of those companies is directly comparable to Forte. Accordingly, an analysis of the results of such a comparison is not purely mathematical but instead involves complex considerations and judgments concerning differences in historical and projected financial and operating characteristics of the selected companies below. The total enterprise values are based on closing stock prices on February 18, 2020. The Selected Publicly Traded Companies were:

- BiomX Inc.
- Edesa Biotech, Inc.
- Evelo Biosciences, Inc.
- Hoth Therapeutics, Inc.
- Krystal Biotech, Inc.
- XBiotech Inc.

The Selected Publicly Traded Companies had implied total enterprise values between $24 million and $877 million. Ladenburg derived a median implied total enterprise value of $165 million for the Selected Publicly Traded Companies. Using the 25th percentile and the 75th percentile of the implied total enterprise values, Ladenburg then calculated a range of implied total equity values for Forte (by adding an estimated $14 million in cash at closing), which was $76.5 million to $510.1 million. This compares to Forte's implied equity value as per the Merger Agreement of approximately $44 million.

Selected Publicly Traded Companies

Company Name	Enterprise Value ($M)
Krystal Biotech, Inc.	$ 876.9
XBiotech Inc.	591.8
BiomX Inc.	209.5
Evelo Biosciences, Inc.	120.0
Hoth Therapeutics, Inc.	43.5
Edesa Biotech, Inc.	23.7

Analysis of Selected Precedent M&A Transactions

Ladenburg reviewed the financial terms, to the extent the information was publicly available, of the six most recent qualifying merger transactions of companies in the biopharmaceutical industry, which had a lead candidate in pre-clinical through Phase 2 stage of clinical development and focused on the dermatology space (the "Selected Precedent M&A Transactions"). Although the precedent transactions referred to below were used for comparison purposes, none of the target companies is directly comparable to Forte. Accordingly, an analysis of the results of such a comparison is not purely mathematical, but instead involves complex considerations and judgments concerning differences in historical and projected financial and operating characteristics of the companies involved and other factors that could affect the merger value of such companies and Forte to which they are being compared. Ladenburg reviewed the total enterprise values of the target companies (including downstream milestone payments). These transactions, including the date each was closed, were as follows below.

The Selected Precedent M&A Transactions had total implied enterprise values between $150 million and $528 million. Ladenburg derived a median total enterprise value of $392 million for the Selected Precedent M&A Transactions. Using the 25th percentile and the 75th percentile of the implied total enterprise values, Ladenburg then calculated a range of implied total enterprise values for Forte (by adding an estimated $13.9 million in cash at closing), which was $313.9 million to $481.8 million. This compares to Forte's implied equity value as per the Merger Agreement of approximately $44 million.

Selected Precedent M&A Transactions

Closed Date	Target	Acquirer	Implied Enterprise Value ($M)
9/14/2018	Bonti, Inc.	Allergan plc	$ 285.0
1/20/2017	Ziarco Group Limited	Novartis AG	438.9
12/6/2016	Creabilis SA	Sienna Biopharmaceuticals, Inc.	150.0
10/25/2016	Vitae Pharmaceuticals, Inc.	Allergan plc	528.2
4/21/2016	Topokine Therapeutics, Inc.	Allergan plc	345.0
1/6/2016	Anterios, Inc.	Allergan plc	477.5

Discounted Cash Flow Analysis

Ladenburg estimated a range of total enterprise values for Forte based upon the present value of Forte's estimated after-tax unlevered free cash flows, which are set forth above in the section titled "*The Merger—Tocagen's Unaudited Financial Projections Regarding Forte*." Ladenburg reviewed and analyzed the revenue and expense projections for Forte as prepared by the management of Tocagen.

Tocagen provided certain assumptions that supported the market opportunity including market penetration data and launch years for FB-401. The Ex-US market was not considered in the financial analysis or projections by Tocagen. The yearly revenue assumptions were derived by Tocagen based on their assumptions regarding the potential market for FB-401, an analysis of the competitive landscape and data from various databases. After arriving at a set of projections, Tocagen further adjusted the revenue assumptions in the years 2022 to 2031 by 32.5% to account for the probability of success given the clinical phase of development of Forte's products. Please see the section titled "*The Merger—Tocagen's Unaudited Financial Projections Regarding Forte*" for additional information on the unadjusted revenue of FB-401. Based upon the experience of the Tocagen management team, they provided the expenses necessary to advance FB-401 through the clinic. Tocagen also applied a rate of 32.5% to these expenses, which consisted of: cost of goods sold, research and development costs, general, administrative and selling expenses and then subtracted all the risk-adjusted expenses in the projection period from risk-adjusted revenue. Tocagen assumed a 28.0% corporate tax rate when calculating unlevered free cash flow.

In performing this discounted cash flow analysis, Ladenburg utilized discount rates ranging from 13.2% to 17.2%, which were selected based on the capital asset pricing model and the estimated weighted average cost of capital of the Selected Publicly Traded Companies, which was approximately 15.2%. This discounted cash flow analysis assumed that Forte will have no terminal value after 2031, does not take into account Forte's available net operating losses, if any, does not take into account stock based compensation costs, if any, and assigns no value to revenues beyond 2031.

Using a range of discount rates of 13.2% to 17.2%, Ladenburg then calculated a range of implied total equity values for Forte (by adding an estimated $13.9 million in cash at closing), which was $151.1 million to $214.1 million. This compares to Forte's implied equity value as per the Merger Agreement of approximately $43.9 million.

The summary set forth above does not purport to be a complete description of all the analyses performed by Ladenburg. The preparation of a fairness opinion involves various determinations as to the most appropriate and relevant methods of financial analysis and the application of these methods to the particular circumstances. Therefore, such an opinion is not readily susceptible to partial analysis or summary description. Ladenburg did not attribute any particular weight to any analysis or factor considered by it, but rather made qualitative judgments as to the significance and relevance of each analysis and factor. Accordingly, notwithstanding the separate factors summarized above, Ladenburg believes, and advised the Tocagen Board, that its analyses must be considered as a whole. Selecting portions of its analyses and the factors considered by it without considering all analyses and factors

could create an incomplete view of the process underlying its Opinion. In performing its analyses, Ladenburg made numerous assumptions with respect to industry performance, business and economic conditions and other matters, many of which are beyond the control of Tocagen and Forte. These analyses performed by Ladenburg are not necessarily indicative of actual values or future results, which may be significantly more or less favorable than suggested by such analyses. In addition, analyses relating to the value of businesses do not purport to be appraisals or to reflect the prices at which businesses or securities may actually be sold. Accordingly, such analyses and estimates are inherently subject to uncertainty, being based upon numerous factors or events beyond the control of the parties or their respective advisors. None of Tocagen, Forte, Ladenburg or any other person assumes responsibility if future results are materially different from those projected. The analyses supplied by Ladenburg and its Opinion were among several factors taken into consideration by the Tocagen Board in making its decision to enter into the Merger Agreement and should not be considered as determinative of such decision.

Ladenburg was selected by the Tocagen Board to render an opinion to the Tocagen Board because Ladenburg is a nationally recognized investment banking firm and because, as part of its investment banking business, Ladenburg is continually engaged in the valuation of businesses and their securities in connection with mergers, negotiated underwritings, secondary distributions of listed and unlisted securities, private placements and valuations for corporate and other purposes. In addition, in the ordinary course of its business, Ladenburg and its affiliates may trade the equity securities of Tocagen for its own account and for the accounts of their customers, and, accordingly, may at any time hold a long or short position in such securities. In the two years preceding the date hereof, Ladenburg has not received any fees from Tocagen, aside from the fees described below. In the two years preceding the date hereof, Ladenburg has not had a relationship with Forte and has not received any fees from Forte. Ladenburg and its affiliates may in the future seek to provide investment banking or financial advisory services to Tocagen and Forte and/or certain of their respective affiliates and expect to receive fees for the rendering of these services.

Pursuant to the engagement letter between Ladenburg and Tocagen as of the time the Merger Agreement was approved, if the Merger is consummated, Ladenburg will be entitled to receive a transaction fee of $950,000 payable in cash at the closing of the transaction. Tocagen has also paid Ladenburg an initial fee of $150,000 and an Opinion fee of $250,000 upon delivery of its Opinion. Additionally, Tocagen has agreed to reimburse Ladenburg for its out-of-pocket expenses and has agreed to indemnify Ladenburg against certain liabilities, including liabilities under the federal securities laws. The terms of the fee arrangement with Ladenburg, which are customary in transactions of this nature, were negotiated at arm's length between Tocagen and Ladenburg, and the Tocagen Board was aware of the arrangement, including the fact that a portion of the fee payable to Ladenburg is contingent upon the completion of the Merger.

Interests of the Tocagen Directors and Executive Officers in the Merger

In considering the recommendation of the Tocagen Board with respect to the approval of the Merger Agreement, the Merger and the issuance of shares of Tocagen Common Stock as contemplated by the Merger Agreement, and the Tocagen Stockholder Matters, Tocagen's stockholders should be aware that certain members of the Tocagen Board and current and former executive officers of Tocagen have interests in the Merger that may be different from, or in addition to, the interests of Tocagen's stockholders. These interests relate to or arise from, among other things, severance benefits to which Martin J. Duvall, Tocagen's Chief Executive Officer and Mark G. Foletta, Tocagen's Executive Vice President, Chief Financial Officer, would become entitled to in the event of termination of their employment under certain circumstances, as specified below under "*Merger-Related Compensation of Executive Officers*."

The Tocagen Board was aware of these potential conflicts of interest and considered them, among other matters, in reaching their respective decisions to approve the Merger Agreement and the Merger, and to recommend, as applicable, that Tocagen's stockholders approve the proposals to be presented to Tocagen's stockholders for consideration at the Tocagen special meeting as contemplated by this proxy statement/prospectus/information statement.

Ownership Interests

As of December 31, 2019, Tocagen's named executive officers and directors and such directors affiliated funds beneficially owned, in the aggregate, approximately 6% of the shares of Tocagen Common Stock. Approval of Proposal No. 1 requires the affirmative vote of holders of a majority of Tocagen Common Stock having voting power outstanding on the record date for the Tocagen special meeting. Approval of Proposals Nos. 2 and 3 requires the affirmative vote of a majority of the votes cast in person or by proxy at the special Meeting. Certain Tocagen officers and directors, and their affiliates, have also entered into support agreements in connection with the Merger. For a more detailed discussion of the support agreements, please see the section titled "*Agreements Related to the Merger*" beginning on page 164 of this proxy statement/prospectus/information statement.

Tocagen Options

As of December 31, 2019, Tocagen's named executive officers and directors collectively owned unvested Tocagen stock options covering 892,323 shares of Tocagen Common Stock and vested Tocagen stock options covering 1,365,527 shares of Tocagen Common Stock. Prior to the closing of the Merger, all outstanding and unexercised options to purchase shares of Tocagen Common Stock with an exercise price of greater than $0.64 will be cancelled and have no further force and effect. All outstanding and unexercised options to purchase shares of Tocagen Common Stock with an exercise price equal to or less than $0.64 will remain effective and outstanding. Such options to remain effective and outstanding are exercisable for an aggregate of 402,500 shares of Tocagen Common Stock. Of the options to remain effective and outstanding, our current executive officers and directors hold options to purchase an aggregate of 145,000 shares of Tocagen Common Stock.

The following table presents certain information concerning the outstanding Tocagen stock options held by each of Tocagen's named executive officers and directors as of December 31, 2019:

	Option Awards[1]					
	Grant Date	Number of Securities Underlying Unexercised Options Exercisable (#)	Number of Securities Underlying Unexercised Options Unexercisable (#)	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Unearned Options (#)	Option Exercise Price ($)[2]	Option Expiration Date
Named Executive Officers						
Martin J. Duvall	11/16/2016	237,960 [3]	70,746 [3]	—	$ 16.56	11/15/2026
	11/16/2016	—	—	154,353 [4]	$ 16.56	11/15/2026
	4/12/2017	31,159 [5]	15,580 [5]	—	$ 10.00	4/11/2027
	5/26/2017	184,062 [6]	100,938 [6]	—	$ 16.32	5/25/2027
	3/01/2018	65,625 [7]	84,375 [7]	—	$ 11.19	2/28/2028
	3/01/2019	—	160,000 [8]	—	$ 11.00	2/28/2029
	10/04/2019	8,333 [9]	41,667 [9]	—	$ 0.64	10/03/2029
Mark Foletta	3/06/2017	49,325 [10]	20,311 [10]	—	$ 15.12	3/05/2027
	3/06/2017	—	—	34,298 [4]	$ 15.12	3/05/2027
	5/26/2017	54,895 [11]	30,105 [11]	—	$ 16.32	5/25/2027
	3/01/2018	37,187 [12]	47,813 [12]	—	$ 11.19	2/28/2028
	3/01/2019	—	75,000 [13]	—	$ 11.00	2/28/2029
	10/04/2019	5,000 [14]	25,000 [14]	—	$ 0.64	10/03/2029
Fairooz Kabbinavar, MD	4/15/2019	—	100,000 [15]	—	$ 9.94	4/14/2029
	10/04/2019	3,333 [16]	16,667 [16]	—	$ 0.64	10/03/2029

	Option Awards[1]					
	Grant Date	Number of Securities Underlying Unexercised Options Exercisable (#)	Number of Securities Underlying Unexercised Options Unexercisable (#)	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Unearned Options (#)	Option Exercise Price ($)[2]	Option Expiration Date
Directors:						
Franklin Berger	11/25/2014	28,985 (17)	—	—	$ 11.60	11/24/2024
	6/10/2016	9,412 (18)	856 (18)	—	$ 14.98	6/09/2026
	4/12/2017	4,830 (19)	2,416 (19)	—	$ 10.00	4/11/2027
	6/21/2018	20,000 (20)	—	—	$ 8.98	06/20/2028
	5/29/2019	11,666 (21)	8,334 (21)	—	$ 4.22	5/28/2029
	10/04/2019	1,250 (22)	6,250 (22)	—	$ 0.64	10/03/2029
Thomas E. Darcy	3/14/2013	66,666 (23)	—	—	$ 3.94	3/13/2023
	6/10/2016	15,277 (24)	1,389 (24)	—	$ 14.98	6/09/2026
	4/12/2017	3,018 (25)	1,510 (25)	—	$ 10.00	4/11/2027
	6/21/2018	20,000 (20)	—	—	$ 8.98	6/20/2028
	5/29/2019	11,666 (21)	8,334 (21)	—	$ 4.22	5/28/2029
	10/04/2019	1,250 (22)	6,250 (22)	—	$ 0.64	10/03/2029
Faheem Hasnain	11/25/2014	43,478 (26)	—	—	$ 11.60	11/24/2024
	6/10/2016	14,114 (27)	1,284 (27)	—	$ 14.98	6/09/2026
	4/12/2017	7,245 (28)	3,624 (28)	—	$ 10.00	4/11/2027
	6/21/2018	20,000 (20)	—	—	$ 8.98	6/20/2028
	5/29/2019	11,666 (21)	8,334 (21)	—	$ 4.22	5/28/2029
	10/04/2019	1,250 (22)	6,250 (22)	—	$ 0.64	10/03/2029
Paul Schimmel, Ph.D.	2/18/2015	18,115 (29)	—	—	$ 11.60	2/17/2025
	6/10/2016	4,848 (30)	441 (30)	—	$ 14.98	6/09/2026
	4/12/2017	3,018 (25)	1,510 (25)	—	$ 10.00	4/11/2027
	6/21/2018	20,000 (20)	—	—	$ 8.98	6/20/2028
	5/29/2019	11,666 (21)	8,334 (21)	—	$ 4.22	5/28/2029
	10/04/2019	1,250 (22)	6,250 (22)	—	$ 0.64	10/03/2029
David R. Parkinson, M.D.	4/21/2015	18,115 (31)	—	—	$ 11.60	4/20/2025
	6/10/2016	3,806 (32)	346 (32)	—	$ 14.98	6/09/2026
	4/12/2017	3,018 (25)	1,510 (25)	—	$ 10.00	4/11/2027
	6/21/2018	20,000 (20)	—	—	$ 8.98	6/20/2028
	5/29/2019	11,666 (21)	8,334 (21)	—	$ 4.22	5/28/2029
	10/04/2019	1,250 (22)	6,250 (22)	—	$ 0.64	10/03/2029
Lori Kunkel, M.D.	9/02/2015	18,115 (33)	—	—	$ 14.77	9/01/2025
	6/10/2016	2,423 (34)	221 (34)	—	$ 14.98	6/09/2026
	4/12/2017	3,018 (25)	1,510 (25)	—	$ 10.00	4/11/2027
	6/21/2018	20,000 (20)	—	—	$ 8.98	6/20/2028
	1/11/2019	35,000 (35)	—	—	$ 9.27	1/11/2029
	5/29/2019	11,666 (21)	8,334 (21)		$ 4.22	5/28/2029
	10/04/2019	1,250 (22)	6,250 (22)		$ 0.64	10/03/2029

(1) All of the outstanding stock option awards were granted under and subject to the terms of the 2009 Plan or 2017 Plan, as applicable, described below under "*Executive Compensation of Tocagen—Equity Benefit*

Plans." As of December 31, 2019, each option award becomes exercisable as it becomes vested and all vesting is subject to the executive's continuous service with Tocagen through the vesting dates and the potential vesting acceleration described below.

(2) All of the stock option awards were granted with a per share exercise price equal to the fair market value of one share of Tocagen Common Stock on the date of grant, as determined in good faith by the Tocagen Board.

(3) 77,176 shares vested on November 1, 2017 and 6,431 shares vest on the 1st day of each month commencing thereafter and ending on November 1, 2020.

(4) The shares shall vest upon the achievement of three separate development and regulatory milestones (with one-third of the shares vesting upon the achievement of each milestone).

(5) 11,684 shares vested on April 1, 2018 and 973 shares vest on the 1st day of each month commencing thereafter and ending on April 1, 2021.

(6) 71,250 shares vested on May 26, 2018 and 5,937 shares vest on the 26th day of each month commencing thereafter and ending on May 26, 2021.

(7) 37,500 shares vested on March 1, 2019 and 3,125 shares will vest on the 1st day of each month commencing thereafter and ending March 1, 2022.

(8) 40,000 shares vest on March 1, 2020 and 3,333 shares will vest on the 1st day of each month commencing thereafter and ending on March 1, 2023.

(9) 4,166 shares vest in a series of twelve successive equal monthly installments commencing on November 4, 2019 and ending on October 4, 2020.

(10) 17,409 shares vested on February 27, 2018 and 1,450 shares vest on the 27th day of each month commencing thereafter and ending on February 27, 2021.

(11) 21,250 shares vested on May 26, 2018 and 1,770 shares vest on the 26th day of each month commencing thereafter and ending on May 26, 2021.

(12) 21,250 shares vested on March 1, 2019 and 1,770 shares will vest on the 1st day of each month commencing thereafter and ending March 1, 2022.

(13) 18,750 shares vest on March 1, 2020 and 1,562 shares vest on the 1st day of each month commencing thereafter and ending on March 1, 2023.

(14) 2,500 shares vest in a series of twelve successive equal monthly installments commencing on November 4, 2019 and ending on October 4, 2020.

(15) 25,000 shares vest on April 15, 2020 and 2,083 shares will vest on the 15th day of each month commencing thereafter and ending on April 15, 2023.

(16) 1,666 shares vest in a series of twelve successive equal monthly installments commencing on November 4, 2019 and ending on October 4, 2020.

(17) 7,246 shares vested on October 21, 2015 and 603 shares vested on the 21st day of each month commencing thereafter and ending on October 21, 2018.

(18) 2,567 shares vested on April 1, 2017 and 213 shares vest on the first day of each month commencing thereafter and ending on April 1, 2020.

(19) 1,811 shares vested on April 1, 2018 and 150 shares vest on the first day of each month commencing thereafter and ending on April 1, 2021.

(20) 1,666 shares vested in a series of twelve successive equal monthly installments commencing on July 21, 2018 and ending on June 21, 2019.

(21) 1,666 shares vest in a series of twelve successive equal monthly installments commencing on June 29, 2019 and ending on May 29, 2020.

(22) 625 shares vest in a series of twelve successive equal monthly installments commencing on November 3, 2019 and ending on October 3, 2020.

(23) 16,666 shares vested on April 1, 2013 and 1,388 shares vested on the first day of each month commencing thereafter and ending on April 1, 2016.

(24) 4,166 shares vested on April 1, 2017 and 347 shares vest on the first day of each month commencing thereafter and ending on April 1, 2020.

(25) 1,132 shares vested on April 1, 2018 and 94 shares vest on the first day of each month commencing thereafter and ending on April 1, 2021.

(26) 10,869 shares vested on October 21, 2015 and 905 shares vested on the 21st day of each month commencing thereafter and ending on October 21, 2018.
(27) 3,849 shares vested on April 1, 2017 and 320 shares vest on the first day of each month commencing thereafter and ending on April 1, 2020.
(28) 2,717 shares vested on April 1, 2018 and 226 shares vest on the first day of each month commencing thereafter and ending on April 1, 2021.
(29) 4,528 shares vested on February 11, 2016 and 377 shares vested on the 11th day of each month commencing thereafter and ending on February 11, 2019.
(30) 1,322 shares vested on April 1, 2017 and 110 shares vest on the first day of each month commencing thereafter and ending on April 1, 2020.
(31) 4,528 shares vested on April 21, 2016 and 377 shares vested on the 21st day of each month commencing thereafter and ending on April 21, 2019.
(32) 1,038 shares vested on April 1, 2017 and 86 shares vest on the first day of each month commencing thereafter and ending on April 1, 2020.
(33) 4,528 shares vested on September 15, 2016 and 377 shares vested on the 15th day of each month commencing thereafter and ending on September 15, 2019.
(34) 661 shares vested on April 1, 2017 and 55 shares vested on the first day of each month commencing thereafter and ending on April 1, 2020.
(35) 35,000 shares vested on April 15, 2019.

Merger-Related Compensation of Executive Officers

On February 21, 2020, Tocagen entered into (i) a Second Amended and Restated Executive Employment Agreement with Martin J. Duvall, its Chief Executive Officer (the "Duvall Agreement") and (ii) a Second Amended and Restated Executive Employment Agreement with Mark Foletta, its Executive Vice President, Chief Financial Officer (the "Foletta Agreement").

If Tocagen terminates Mr. Duvall's employment without cause (other than due to his death or disability) or if Mr. Duvall resigns for good reason at any time (collectively, an "Involuntary Termination"), Mr. Duvall is entitled to receive (A) severance payments in the form of continuation of his base salary then in effect (ignoring any decrease that forms the basis for his resignation for good reason, if applicable) for 18 months, (B) continued health insurance coverage under Tocagen's group health plans under the Consolidated Omnibus Budget Reconciliation Act of 1985 or the state equivalent until the earliest of (1) the end of the 18 month severance period, (2) the expiration of his eligibility for the continuation coverage, or (3) the date when he becomes eligible for substantially equivalent health insurance coverage in connection with new employment or self-employment and (C) an extension of the period of time following which he may exercise vested shares subject to outstanding equity awards until the date that is the earlier of the original expiration date of such award and 18 months following such Involuntary Termination (the "Duvall Severance Benefits"). Additionally, in the event of an Involuntary Termination at any time during the time period commencing three months prior to or 12 months after the effective date of a change in control of Tocagen, Mr. Duvall is entitled to receive full vesting acceleration of all shares subject to time-based vesting stock awards then outstanding and held by Mr. Duvall, (the "Duvall Change in Control Severance Benefits"). The Duvall Severance Benefits and Duvall Change in Control Severance Benefits are conditioned upon Mr. Duvall signing and not revoking a general release of legal claims in the form provided by Tocagen.

In the event of an Involuntary Termination of Mr. Foletta, Mr. Foletta is entitled to receive (A) severance payments in the form of continuation of his base salary then in effect (ignoring any decrease that forms the basis for his resignation for good reason, if applicable) for 12 months, (B) continued health insurance coverage under Tocagen's group health plans under the Consolidated Omnibus Budget Reconciliation Act of 1985 or the state equivalent until the earliest of (1) the end of the 12 month severance period, (2) the expiration of his eligibility for the continuation coverage, or (3) the date when he becomes eligible for substantially equivalent health insurance coverage in connection with new employment or self-employment and (C) an extension of the period

of time following which he may exercise vested shares subject to outstanding equity awards until the date that is the earlier of the original expiration date of such award and 12 months following such Involuntary Termination (the "Foletta Severance Benefits"). Additionally, in the event of an Involuntary Termination at any time during the time period commencing three months prior to or 12 months after the effective date of a change in control of Tocagen, Mr. Foletta is entitled to receive full vesting acceleration of all shares subject to time-based vesting stock awards then outstanding and held by Mr. Foletta (the "Foletta Change in Control Severance Benefits"). The Foletta Severance Benefits and Foletta Change in Control Severance Benefits are conditioned upon Mr. Foletta signing and not revoking a general release of legal claims in the form provided by Tocagen.

On February 21, 2020, Tocagen notified Mr. Duvall and Mr. Foletta that their employment with Tocagen will end upon the closing of the Merger, at which point they will be eligible to receive the Duvall Severance Benefits, the Duvall Change in Control Severence Benefits, the Foletta Severance Benefits and the Foletta Change in Control Severance Benefits.

Indemnification and Insurance

For a discussion of the indemnification and insurance provisions related to the Tocagen directors and officers under the Merger Agreement, please see the section titled "*The Merger Agreement—Other Agreements—Director Indemnification and Insurance*."

Interests of the Forte Directors and Executive Officers in the Merger

Forte stockholders should be aware that certain members of the Forte Board and executive officers of Forte have interests in the Merger that may be different from, or in addition to, interests they may have as Forte stockholders. The Forte Board was aware of these potential conflicts of interest and considered them, among other matters, in reaching its decision to approve the Merger Agreement, the Merger and related transactions.

Ownership Interests

Certain of Forte's directors and executive officers currently hold shares of Forte Common Stock or Forte Preferred Stock (in some cases indirectly through wholly-owned limited liability companies), each of which will be exchanged for Tocagen Common Stock upon the closing of the Merger.

The table below sets forth the anticipated ownership of Forte Common Stock or Forte Preferred Stock by Forte's directors and executive officers, including Forte Capital Stock held by stockholders affiliated with Forte's directors and executive officers, immediately prior to the closing of the Merger based on their ownership as of March 6, 2020 and anticipated ownership immediately prior to the closing of the Merger:

Forte Director or Officer Name	Forte Shares Owned
Paul A. Wagner, Ph.D.	10,526,864
ArrowMark Life Science Fund, L.P.	278,590
ArrowMark Fundamental Opportunity Fund, L.P.	1,629,753
CF Ascent, LLC	25,072
Iron Horse Investments, LLC	614,291
Lookfar Investments, LLC	87,755
Meridian Small Cap Growth Fund	5,571,807
Meridian Growth Fund	5,571,807
THB Iron Rose, LLC	150,436

As of December 31, 2019, Forte's directors and executive officers (including affiliates) beneficially owned, in the aggregate approximately 95% of the outstanding shares of Forte Capital Stock.

Forte Stock Option Plan

Forte has adopted its 2018 Equity Incentive Plan. Forte has granted a total of 2,725,000 options to nine optionholders. There are 60,868 options available for issuance.

Management Following the Merger

Executive Officers of the Combined Company Following the Merger

Immediately following the Merger, the executive management team of the combined company is expected to be comprised of the following individuals with such additional officers as may be added by Forte or the combined company:

Name	Position with the Combined Company	Current Position
Paul A. Wagner, Ph.D.	Chief Executive Officer, President and Director	Chief Executive Officer, President and Director of Forte
Antony Riley	Chief Financial Officer	Chief Financial Officer of Forte

Board of Directors

Directors of the Combined Company Following the Merger

At the Effective Time, the combined company is expected to initially have an eight-member board of directors, comprised of (a) Paul A. Wagner, Ph.D., Dr. Lawrence Eichenfield, Steven Kornfeld, Patricia Walker, M.D., Ph.D., Donald A. Williams and one additional member to be appointed prior to the closing of the Merger, each as a Forte designee, and (b) Martin J. Duvall and Thomas E. Darcy, each as a Tocagen designee, until their respective successors are duly elected or appointed and qualified or their earlier death, resignation or removal.

The aforementioned board of directors will have an audit committee, a compensation committee and a nominating and corporate governance committee, in accordance with the Nasdaq rules. All of Tocagen's current directors, other than Martin J. Duvall and Thomas E. Darcy, are expected to resign from their positions as directors of Tocagen, effective as of the Effective Time.

Merger Consideration

For a discussion of merger consideration and the Exchange Ratio, please see the section titled "*Overview of the Merger Agreement and Agreements Related to the Merger Agreement—Merger Consideration and Exchange Ratio*" beginning on page 143.

Treatment of Tocagen Stock Options and Restricted Stock Units

Prior to the closing of the Merger, the Tocagen Board will have adopted appropriate resolutions to provide that certain unexpired and unexercised Tocagen stock options, whether vested or unvested, will be cancelled effective as of immediately prior to the Effective Time in accordance with the 2009 Plan and the 2017 Equity Incentive Plan, as applicable. As of immediately prior to the Effective Time, all outstanding and unexercised options to purchase shares of Tocagen Common Stock with an exercise price of greater than $0.64 will be cancelled and have no further force and effect. All outstanding and unexercised options to purchase shares of Tocagen Common Stock with an exercise price equal to or less than $0.64 will remain effective and outstanding. All Tocagen restricted stock units will vest at the Effective Time. Such options to remain effective and outstanding are exercisable for an aggregate of 402,500 shares of Tocagen Common Stock. Of the options to remain effective and outstanding, our current executive officers and directors hold options to purchase an aggregate of 145,000 shares of Tocagen Common Stock.

Treatment of Forte Stock Options

Under the terms of the Merger Agreement, each option to purchase shares of Forte Common stock that is outstanding and unexercised immediately prior to the Effective Time, whether or not vested, will be converted into an option to purchase shares of Tocagen Common Stock. Tocagen will assume the Forte 2018 Equity Incentive Plan, as amended, and all rights with respect to each outstanding option to purchase Forte Common Stock in accordance with its terms and the terms of the stock option agreement by which such option is evidenced.

Accordingly, from and after the Effective Time: (i) each outstanding Forte stock option assumed by Tocagen may be exercised solely for shares of Tocagen Common Stock; (ii) the number of shares of Tocagen Common Stock subject to each outstanding option assumed by Tocagen will be determined by multiplying (A) the number of shares of Forte Common Stock that were subject to such Forte stock option, as in effect immediately prior to the Effective Time, by (B) the Exchange Ratio and the Reverse Split, and rounding the resulting number down to the nearest whole number of shares of Tocagen Common Stock; (iii) the per share exercise price for the Tocagen Common Stock issuable upon exercise of each Forte stock option assumed by Tocagen shall be determined by dividing (A) the per share exercise price of Forte Common Stock subject to such Forte stock option, as in effect immediately prior to the Effective Time, by (B) the Exchange Ratio and the Reverse Split and rounding the resulting exercise price up to the nearest whole cent; and (iv) any restriction on the exercise of any Forte stock option assumed by Tocagen shall continue in full force and effect and the term, exercisability, vesting schedule, accelerated vesting provisions, and any other provisions of such Forte stock option shall otherwise remain unchanged; provided, however, that the Tocagen Board or a committee thereof will succeed to the authority and responsibility of the Forte Board or any committee thereof with respect to each Forte stock option assumed by Tocagen. The number of shares of Tocagen Common Stock that will be issued upon exercise of the Forte stock options, and the exercise price of such options, will also be adjusted for the Reverse Split.

Treatment of Forte Warrants

Under the terms of the Forte warrants issued pursuant to the Securities Purchase Agreement immediately prior to the Merger, upon consummation of the Merger, the surviving corporation will assume the Forte warrants and the obligation to deliver to each holder of the Forte warrants shares of Tocagen Common Stock upon exercise in accordance with the terms and conditions of the Forte warrants. The number of shares of Tocagen Common Stock that is expected to be issued upon exercise of Forte warrants will assume the same Exchange Ratio the applies to the Forte capital stock. The exercise price of the Forte warrants will be equal to the amount obtained by dividing (i) $120.0 million by (ii) the total number of shares of the surviving corporation outstanding immediately following the consummation of the Merger on a fully-diluted basis (excluding any shares issuable pursuant to the Forte warrants). The warrants are assumed to not be “in-the-money” at the Closing and, under the fully diluted treasury stock method basis, are thus excluded from the fully diluted percentages of ownership of the combined company described in this proxy statement/prospectus/information statement. The number of shares of Tocagen Common Stock that will be issued upon exercise of the Forte warrants, and the exercise price of such warrants, will also be adjusted for the Reverse Split.

Merger Expenses

Except as otherwise expressly provided in the Merger Agreement, all costs and expenses incurred in connection with the Merger Agreement and the transactions contemplated thereby will be paid by the party incurring such expense, except Forte will pay (i) all fees and expenses paid to the SEC in connection with filing this proxy statement/prospectus/information statement, and any amendments and supplements hereto, with the SEC, and (ii) the Nasdaq fees associated with the Nasdaq listing application. For a more complete description of the Merger Expenses, please see the section titled “*The Merger—Merger Expenses*” beginning on page 132 of this proxy statement/prospectus/information statement.

Effective Time of the Merger

The Merger will be completed as promptly as practicable (but no later than the second business day) after all of the conditions to completion of the Merger are satisfied or waived, including the approval of the stockholders of Tocagen and Forte, unless earlier terminated in accordance with the terms of the Merger Agreement. For more information on termination rights, see the section entitled "*The Merger Agreement—Termination and Termination Fees*" on page 160. The Merger is anticipated to occur after the Tocagen special meeting, which is further described on page 99. Tocagen and Forte cannot predict the exact timing of the completion of the Merger because it is subject to various conditions.

Regulatory Approvals

In the United States, Tocagen must comply with applicable federal and state securities laws and the rules and regulations of Nasdaq in connection with the issuance of shares of Tocagen Common Stock to Forte's stockholders in connection with the transactions contemplated by the Merger Agreement and the filing of this proxy statement/prospectus/information statement with the SEC. Tocagen does not intend to seek any regulatory approval from antitrust authorities to consummate the transactions.

Material U.S. Federal Income Tax Consequences of the Merger

The following discussion represents the opinion of Cooley, counsel to Tocagen, and WSGR, counsel to Forte, with respect to material U.S. federal income tax consequences of the Merger to beneficial owners of Forte capital stock that receive Tocagen Common Stock pursuant to the Merger. These opinions are based on facts and representations contained in representation letters provided by Tocagen and Forte and on customary factual assumptions. This summary is based upon current provisions of the Code, existing Treasury regulations, judicial decisions, and published rulings and administrative pronouncements of the IRS, all in effect as of the date hereof and all of which are subject to differing interpretations or change. Any such change or differing interpretation, which may be retroactive, could alter the tax consequences to Forte stockholders as described in this summary.

This discussion applies only to Forte stockholders who hold their Forte capital stock as a "capital asset" within the meaning of Section 1221 of the Code, and does not address all U.S. federal income tax consequences relevant to a Forte stockholder. In addition, it does not address consequences relevant to Forte stockholders that are subject to particular U.S. or non-U.S. tax rules, including, without limitation to Forte stockholders that are:

- brokers, dealers or traders in securities; banks; insurance companies; other financial institutions; mutual funds;
- real estate investment trusts; regulated investment companies; tax-exempt organizations or governmental organizations;
- pass-through entities such as partnerships, S corporations, disregarded entities for federal income tax purposes and limited liability companies (and investors therein);
- persons who are not U.S. holders (as defined below);
- stockholders who are subject to the alternative minimum tax provisions of the Code;
- persons who hold their shares as part of a hedge, wash sale, synthetic security, conversion transaction, or other integrated transaction;
- persons that have a functional currency other than the U.S. dollar; traders in securities who elect to apply a mark-to-market method of accounting;
- persons who hold shares of Forte capital stock that may constitute "qualified small business stock" under Section 1202 of the Code or as "Section 1244 stock" for purposes of Section 1244 of the Code;
- persons who elect to apply the provisions of Section 1400Z-2 to any gains realized in the Merger;

- persons who acquired their shares of stock in a transaction subject to the gain rollover provisions of Section 1045 of the Code;
- persons subject to special tax accounting rules as a result of any item of gross income with respect to Forte Common Stock being taken into account in an "applicable financial statement" (as defined in the Code);
- persons deemed to sell Forte capital stock under the constructive sale provisions of the Code;
- persons who acquired their shares of stock pursuant to the exercise of options or otherwise as compensation or through a tax-qualified retirement plan or through the exercise of a warrant or conversion rights under convertible instruments; and
- certain expatriates or former citizens or long-term residents of the United States.

Forte stockholders subject to particular U.S. or non-U.S. tax rules that are described in this paragraph are urged to consult their own tax advisors regarding the consequences to them of the Merger.

If an entity that is treated as a partnership for U.S. federal income tax purposes holds Forte capital stock, the U.S. federal income tax treatment of a partner in the partnership will depend upon the status of the partner, the activities of the partnership and certain determinations made at the partner level. If you are a partnership or a partner of a partnership holding Forte capital stock or any other person not addressed by this discussion, you should consult your tax advisors regarding the tax consequences of the Merger.

In addition, the following discussion does not address: (a) the tax consequences of transactions effectuated before, after or at the same time as the Merger, whether or not they are in connection with the Merger, including, without limitation, transactions in which shares of Forte capital stock are acquired or disposed of other than in exchange for shares of Tocagen Common Stock in the Merger; (b) the tax consequences to holders of options or warrants issued by Forte which are assumed in connection with the Merger; (c) the tax consequences of the ownership of shares of Tocagen Common Stock following the Merger; (d) any U.S. federal non-income tax consequences of the Merger, including estate, gift or other tax consequences; (e) any state, local or non-U.S. tax consequences of the Merger; or (f) the Medicare contribution tax on net investment income.

Definition of "U.S. Holder"

For purposes of this discussion, a "U.S. holder" is a beneficial owner of Forte capital stock that is, for U.S. federal income tax purposes:

- an individual who is a citizen or resident of the United States;
- a corporation or any other entity taxable as a corporation created or organized in or under the laws of the United States, any state thereof, or the District of Columbia;
- a trust if either (i) a court within the United States is able to exercise primary supervision over the administration of such trust, and one or more United States persons (within the meaning of Section 7701(a)(30) of the Code) are authorized or have the authority to control all substantial decisions of such trust, or (ii) the trust was in existence on August 20, 1996 and has a valid election in effect under applicable Treasury Regulations to be treated as a United States person for U.S. federal income tax purposes; or
- an estate, the income of which is subject to U.S. federal income tax regardless of its source.

General

It is the opinion of Cooley and WSGR that the Merger will qualify as a "reorganization" within the meaning of Section 368(a) of the Code and that accordingly the material U.S. federal income tax consequences of the

Merger to U.S. holders are as described below under the heading "*—Treatment of U.S. Holders in the Merger.*" These opinions are based on facts and representations contained in representation letters provided by Tocagen and Forte and on customary factual assumptions, and further assume that the Merger is completed in the manner set forth in the Merger Agreement and the Registration Statement on Form S-4 of which this proxy statement/prospectus forms a part. If any assumption or representation is or becomes inaccurate, the U.S. federal income tax consequences of the Merger could be adversely affected. Neither Tocagen nor Forte intends to obtain a ruling from the IRS with respect to the tax consequences of the Merger. Further, the Merger is not conditioned upon obtaining an opinion from counsel that the Merger will qualify as a reorganization. Accordingly, no assurance can be given that the IRS will not challenge the Merger's qualification as a "reorganization" within the meaning of Section 368(a) of the Code or that a court would not sustain such a challenge.

Treatment of U.S. Holders in the Merger

On the basis of the opinions described above that the Merger will qualify as a reorganization under Section 368(a) of the Code, Forte stockholders will not recognize gain or loss upon the exchange of their Forte capital stock for Tocagen Common Stock, except to the extent of cash received in lieu of a fractional share of Tocagen Common Stock as described below. Forte stockholders will obtain a basis in the Tocagen Common Stock they receive in the Merger equal to their basis in the Forte capital stock exchanged therefor, reduced by the amount of basis allocable to any fractional share of Tocagen Common Stock. The holding period of the shares of Tocagen Common Stock received by a Forte stockholder in the Merger will include the holding period of the shares of Forte capital stock surrendered in exchange therefor. A U.S. holder who receives cash in lieu of a fractional share of Tocagen Common Stock will recognize capital gain or loss in an amount equal to the difference between the amount of cash received and the U.S. holder's tax basis allocable to such fractional share. Such gain or loss will be a long-term capital gain or loss, if the U.S. holder's holding period in the Forte capital stock surrendered in the Merger is greater than one year as of the date of the Closing. Under current law, the deductibility of capital losses is subject to limitations. In addition, for purposes of the above discussion of the bases and holding periods for shares of Forte capital stock acquired by Forte stockholders at different times for different prices, such Forte stockholders must calculate their gains and losses and holding periods separately for each identifiable block of such stock exchanged in the Merger.

Holders of Forte capital stock are urged to consult their tax advisors regarding the U.S. federal income tax consequences of the Merger in light of their personal circumstances and the consequences to them under state, local and non-U.S. tax laws and other federal tax laws.

Information Reporting and Backup Withholding

Each U.S. holder who receives shares of Tocagen Common Stock in the Merger is required to retain permanent records pertaining to the Merger, and make such records available to any authorized IRS officers and employees. Such records should specifically include information regarding the amount, basis, and fair market value of all transferred property, and relevant facts regarding any liabilities assumed or extinguished as part of such reorganization. U.S. holders who owned immediately before the Merger at least one percent (by vote or value) of the total outstanding stock of Forte are required to attach a statement to their tax returns for the year in which the Merger is consummated that contains the information listed in Treasury Regulation Section 1.368-3(b). Such statement must include the U.S. holder's tax basis in such holder's Forte capital stock surrendered in the Merger, the fair market value of such stock, the date of the Merger and the name and employer identification number of each of Forte and Tocagen. U.S. holders are urged to consult with their tax advisors to comply with these rules.

A U.S. holder of Forte capital stock may be subject to information reporting and backup withholding for U.S. federal income tax purposes on cash paid in lieu of fractional shares in connection with the Merger. Backup withholding will not apply, however, to a U.S. holder who (i) furnishes a correct taxpayer identification number

and certifies the holder is not subject to backup withholding on IRS Form W-9 or a substantially similar form, or (ii) certifies the holder is otherwise exempt from backup withholding. If a U.S. holder does not provide a correct taxpayer identification number on IRS Form W-9 or other proper certification, the stockholder may be subject to penalties imposed by the IRS. Any amounts withheld under the backup withholding rules may be refunded or allowed as a credit against the federal income tax liability of a U.S. holder of Forte capital stock, if any, provided the required information is timely furnished to the IRS. Forte stockholders should consult their tax advisors regarding their qualification for an exemption from backup withholding, the procedures for obtaining such an exemption, and in the event backup withholding is applied, to determine if any tax credit, tax refund or other tax benefit may be obtained.

This summary does not take into account your particular circumstances and does not address consequences that may be particular to you. Therefore, you should consult your tax advisor regarding the particular consequences of the Merger to you.

Nasdaq Stock Market Listing

Tocagen Common Stock currently is listed on The Nasdaq Global Select Market under the symbol "TOCA." Tocagen has agreed to use commercially reasonable efforts (i) to maintain its existing listing on Nasdaq until the Effective Time and obtain approval of the listing of the combined company on Nasdaq, (ii) to the extent required by the rules and regulations of Nasdaq, to prepare and submit to Nasdaq a notification form for the listing of the shares of Tocagen Common Stock to be issued in connection with the Contemplated Transactions, and to cause such shares to be approved for listing (subject to official notice of issuance), (iii) to effect the Nasdaq reverse split and (iv) to the extent required by Nasdaq Marketplace Rule 5110, to file an initial Nasdaq Listing Application for the Tocagen Common Stock on Nasdaq and to cause such listing application to be conditionally approved prior to the Effective Time.

In addition, under the Merger Agreement, each of Forte's and Tocagen's obligation to complete the Merger is subject to the satisfaction or waiver by each of the parties, at or prior to the Merger, of various conditions, including that the shares of Tocagen Common Stock to be issued in the Merger have been approved for listing on Nasdaq as of the closing of the Merger.

If the Nasdaq Listing Application is accepted, Tocagen anticipates that the common stock of the combined company will be listed on the Nasdaq Capital Market following the closing of the Merger under the trading symbol "FBRX."

Anticipated Accounting Treatment

The Merger will be treated by Tocagen as a reverse merger under the acquisition method of accounting in accordance with U.S. GAAP. For accounting purposes, Forte is considered to be acquiring Tocagen in this transaction. The Merger will be accounted for under the acquisition method of accounting under existing U.S. GAAP, which are subject to change and interpretation. Under the acquisition method of accounting, management of Tocagen and Forte have made a preliminary estimated purchase price calculated as described in Note 3 to the Notes to the Unaudited Pro Forma Condensed Combined Financial Information. The net tangible and intangible assets acquired and liabilities assumed in connection with the Merger are at their estimated acquisition date fair values. The acquisition method of accounting is dependent upon certain valuations and other studies that have yet to commence or progress to a stage where there is sufficient information for a definitive measurement. A final determination of these estimated fair values, which cannot be made prior to the completion of the Merger, will be based on the actual net tangible and intangible assets of Tocagen that exist as of the date of completion of the Merger.

Appraisal Rights and Dissenters' Rights

Appraisal Rights under Delaware law

Under the DGCL, Tocagen stockholders are not entitled to appraisal rights in connection with the Merger.

Forte stockholders are entitled to appraisal rights in connection with the Merger under Section 262 of the DGCL.

The discussion below is not a complete summary regarding Forte stockholders' appraisal rights under Delaware law and is qualified in its entirety by reference to the text of the relevant provisions of Delaware law, which are attached as *Annex C*. Stockholders intending to exercise appraisal rights should carefully review *Annex C*. Failure to follow precisely any of the statutory procedures set forth in *Annex C* may result in a termination or waiver of these rights. This summary does not constitute legal or other advice, nor does it constitute a recommendation that Forte stockholders exercise their appraisal rights under Delaware law.

Under Section 262, where a merger is adopted by stockholders by written consent in lieu of a meeting of stockholders pursuant to Section 228 of the DGCL, either the constituent corporation before the effective date of such merger or the surviving corporation, within 10 days after the effective date of such merger, must notify each stockholder of the constituent corporation entitled to appraisal rights of the approval of such merger, the effective date of such merger and that appraisal rights are available.

If the Merger is completed, within 10 days after the effective date of the Merger, Forte will notify its stockholders that the Merger has been approved, the effective date of the Merger and that appraisal rights are available to any stockholder who has not approved the Merger. Holders of shares of Forte Capital Stock who desire to exercise their appraisal rights must deliver a written demand for appraisal to Forte within 20 days after the date of mailing of that notice, and that stockholder must not have delivered a written consent approving the Merger. A demand for appraisal must reasonably inform Forte of the identity of the stockholder and that such stockholder intends thereby to demand appraisal of the shares of Forte Capital Stock held by such stockholder. Failure to deliver a written consent approving the Merger will not in and of itself constitute a written demand for appraisal satisfying the requirements of Section 262. All demands for appraisal should be addressed to Forte Biosciences, Inc., 1124 W Carson Street, MRL Building 3-320, Torrance, CA 90502, Attention: Paul A. Wagner, Email: pwagner@fortebiorx.com, and should be executed by, or on behalf of, the record holder of shares of Forte capital stock. ALL DEMANDS MUST BE RECEIVED BY FORTE WITHIN 20 DAYS AFTER THE DATE FORTE MAILS A NOTICE TO ITS STOCKHOLDERS NOTIFYING THEM THAT THE MERGER HAS BEEN APPROVED, THE EFFECTIVE DATE OF THE MERGER AND THAT APPRAISAL RIGHTS ARE AVAILABLE TO ANY STOCKHOLDER WHO HAS NOT APPROVED THE MERGER.

If you fail to deliver a written demand for appraisal within the time period specified above, you will be entitled to receive the merger consideration for your shares of Forte Capital Stock as provided for in the Merger Agreement, but you will have no appraisal rights with respect to your shares of Forte Capital Stock.

To be effective, a demand for appraisal by a holder of shares of Forte Capital Stock must be made by, or in the name of, the registered stockholder, fully and correctly, as the stockholder's name appears on the stockholder's stock certificate(s). Beneficial owners who do not also hold the shares of record may not directly make appraisal demands to Forte. The beneficial owner must, in these cases, have the registered owner, such as a broker, bank or other custodian, submit the required demand in respect of those shares. If shares are owned of record in a fiduciary capacity, such as by a trustee, guardian or custodian, execution of a demand for appraisal should be made by or for the fiduciary; and if the shares are owned of record by more than one person, as in a joint tenancy or tenancy in common, the demand should be executed by or for all joint owners. An authorized agent, including an authorized agent for two or more joint owners, may execute the demand for appraisal for a stockholder of record; however, the agent must identify the record owner or owners and expressly disclose the fact that, in executing the demand, he or she is acting as agent for the record owner. A record owner, such as a

broker, who holds shares as a custodian for others, may exercise the record owner's right of appraisal with respect to the shares held for one or more beneficial owners, while not exercising this right for other beneficial owners. In that case, the written demand should state the number of shares as to which appraisal is sought. Where no number of shares is expressly mentioned, the demand will be presumed to cover all shares held in the name of the record owner. In addition, the stockholder must continuously hold the shares of record from the date of making the demand through the Effective Time.

If you hold your shares of Forte Capital Stock in a brokerage account or in other custodian form and you wish to exercise appraisal rights, you should consult with your bank, broker or other custodian to determine the appropriate procedures for the making of a demand for appraisal by the custodian.

At any time within 60 days after the Effective Time, any stockholder who has demanded an appraisal, but has neither commenced an appraisal proceeding or joined an appraisal proceeding as a named party, has the right to withdraw such stockholder's demand and accept the terms of the Merger by delivering a written withdrawal to Forte. If, following a demand for appraisal, you have withdrawn your demand for appraisal in accordance with Section 262, you will have the right to receive the merger consideration for your shares of Forte Capital Stock.

Within 120 days after the effective date of the Merger, any stockholder who has delivered a demand for appraisal in accordance with Section 262 will, upon written request to the surviving corporation, be entitled to receive a written statement setting forth the aggregate number of shares not voted in favor of the Merger Agreement and with respect to which demands for appraisal rights have been received and the aggregate number of holders of these shares. This written statement will be mailed to the requesting stockholder within 10 days after the stockholder's written request is received by the surviving corporation or within 10 days after expiration of the period for delivery of demands for appraisal, whichever is later. Within 120 days after the effective date of the merger, either the surviving corporation or any stockholder who has delivered a demand for appraisal in accordance with Section 262 may file a petition in the Delaware Court of Chancery demanding a determination of the fair value of the shares held by all such stockholders. Upon the filing of the petition by a stockholder, service of a copy of the petition must be made upon the surviving corporation. The surviving corporation has no obligation to file a petition in the Delaware Court of Chancery in the event there are dissenting stockholders, and Forte, which is expected to be the surviving corporation, has no present intent to file a petition in the Delaware Court of Chancery. Accordingly, the failure of a stockholder to file a petition within the period specified could nullify the stockholder's previously written demand for appraisal.

If a petition for appraisal is duly filed by a stockholder and a copy of the petition is delivered to the surviving corporation, the surviving corporation will then be obligated, within 20 days after receiving service of a copy of the petition, to provide the Delaware Court of Chancery with a duly verified list containing the names and addresses of all stockholders who have demanded an appraisal of their shares and with whom agreements as to the value of their shares have not been reached by the surviving corporation. After notice to dissenting stockholders who demanded appraisal of their shares, the Delaware Court of Chancery is empowered to conduct a hearing upon the petition, and to determine those stockholders who have complied with Section 262 and who have become entitled to the appraisal rights provided thereby. The Delaware Court of Chancery may require the stockholders who have demanded appraisal for their shares to submit their stock certificates to the Register in Chancery for notation thereon of the pendency of the appraisal proceedings; and if any stockholder fails to comply with that direction, the Delaware Court of Chancery may dismiss the proceedings as to that stockholder.

After determination of the stockholders entitled to appraisal of their shares, the Delaware Court of Chancery will appraise the "fair value" of the shares owned by those stockholders. This value will be exclusive of any element of value arising from the accomplishment or expectation of the Merger, but may include a fair rate of interest, if any, upon the amount determined to be the fair value. When the value is determined, the Delaware Court of Chancery will direct the payment of the value, with interest thereon accrued during the pendency of the proceeding, if the Delaware Court of Chancery so determines, to the stockholders entitled to receive the same, upon surrender by the holders of the certificates representing those shares. At any time before the entry of

judgment in the proceedings, the surviving corporation may pay to each stockholder entitled to appraisal an amount in cash, in which case interest shall accrue thereafter only upon the sum of (i) the difference, if any, between the amount so paid and the fair value of the shares subject to appraisal as determined by the Delaware Court of Chancery and (ii) interest theretofore accrued, unless paid at that time.

In determining fair value, and, if applicable, a fair rate of interest, the Delaware Court of Chancery is required to take into account all relevant factors. In *Weinberger v. UOP, Inc.*, the Delaware Supreme Court discussed the factors that could be considered in determining fair value in an appraisal proceeding, stating that "proof of value by any techniques or methods which are generally considered acceptable in the financial community and otherwise admissible in court" should be considered, and that "fair price obviously requires consideration of all relevant factors involving the value of a company."

Section 262 provides that fair value is to be "exclusive of any element of value arising from the accomplishment or expectation of the merger." In *Cede & Co. v. Technicolor, Inc.*, the Delaware Supreme Court stated that this exclusion is a "narrow exclusion [that] does not encompass known elements of value," but which rather applies only to the speculative elements of value arising from such accomplishment or expectation. In *Weinberger*, the Delaware Supreme Court construed Section 262 to mean that "elements of future value, including the nature of the enterprise, which are known or susceptible of proof as of the date of the merger and not the product of speculation, may be considered."

You should be aware that the fair value of your shares as determined under Section 262 could be more than, the same as, or less than the value that you are entitled to receive under the terms of the Merger Agreement.

Costs of the appraisal proceeding may be imposed upon the surviving corporation and the stockholders participating in the appraisal proceeding by the Delaware Court of Chancery as the Court deems equitable in the circumstances. Upon the application of a stockholder, the Delaware Court of Chancery may order all or a portion of the expenses incurred by any stockholder in connection with the appraisal proceeding, including, without limitation, reasonable attorneys' fees and the fees and expenses of experts, to be charged pro rata against the value of all shares entitled to appraisal. In the absence of such a determination of assessment, each party bears its own expenses. Any stockholder who had demanded appraisal rights will not, after the Effective Time, be entitled to vote shares subject to that demand for any purpose or to receive payments of dividends or any other distribution with respect to those shares, other than with respect to payment as of a record date prior to the Effective Time; however, if no petition for appraisal is filed within 120 days after the Effective Time, or if the stockholder delivers a written withdrawal of his or her demand for appraisal and an acceptance of the terms of the Merger within 60 days after the Effective Time, then the right of that stockholder to appraisal will cease and that stockholder will be entitled to receive the merger consideration for shares of his or her Forte Capital Stock pursuant to the Merger Agreement. Any withdrawal of a demand for appraisal made more than 60 days after the Effective Time may only be made with the written approval of the surviving corporation. No appraisal proceeding in the Delaware Court of Chancery will be dismissed as to any stockholder without the approval of the court.

Failure to follow the steps required by Section 262 for perfecting appraisal rights may result in the loss of appraisal rights. In view of the complexity of Section 262, stockholders who may wish to dissent from the Merger and pursue appraisal rights should consult their legal advisors.

Dissenters' Rights Under California Law

The shares of Forte Capital Stock held by Forte stockholders who do not vote their Forte Capital Stock in favor of the merger proposal and who properly demand the purchase of such shares in accordance with Chapter 13 of the CCC will not be converted into the right to receive the merger consideration otherwise payable for Forte Capital Stock upon consummation of the Merger, but will instead be converted into the right to receive such consideration as may be determined to be due pursuant to Chapter 13 of the CCC.

The discussion of the provisions set forth below is not a complete summary pertaining to dissenting stockholder rights under California law and is qualified in its entirety by reference to the full text of Chapter 13 of the CCC, which is included as *Annex D* to this proxy/information statement/prospectus and incorporated herein by reference. Forte stockholders intending to exercise their dissenting stockholder rights to have Forte purchase, at the fair market value, the shares of Forte Capital Stock held by them should carefully review *Annex D*.

FAILURE TO FOLLOW PRECISELY ANY OF THE STATUTORY PROCEDURES SET FORTH IN ANNEX D MAY RESULT IN A TERMINATION OR WAIVER OF THESE RIGHTS. FORTE STOCKHOLDERS WHO ARE CONSIDERING ASSERTING AND EXERCISING DISSENTING STOCKHOLDER RIGHTS SHOULD CONSULT THEIR LEGAL ADVISORS.

If the merger is completed, any holder of shares of Forte Capital Stock as of the record date may, by complying with the provisions of Chapter 13 of the CCC, require Forte to purchase such holder's shares of Forte Capital Stock at the fair market value thereof in lieu of receiving the per share merger consideration for their shares. The fair market value will be determined as of the day of, and immediately prior to, the first public announcement of the terms of the proposed merger (which occurred on the afternoon of February 19, 2020), excluding any appreciation or depreciation in consequence of the proposed merger. Forte stockholders should be aware that an investment banking opinion as to the fairness from a financial point of view of the consideration payable in a transaction such as the proposed merger is not an opinion as to, and does not in any way address, fair market value for purposes of Chapter 13 of the CCC.

If a Forte stockholder has a beneficial interest in shares of Forte Capital Stock that are held of record in the name of another person, such as a trustee or nominee, and such stockholder desires to perfect any dissenting stockholder rights such beneficial stockholder may have, such beneficial stockholder must act promptly to cause the holder of record to timely and properly follow all the steps summarized below. Dissenting stockholder rights cannot be validly exercised by persons other than stockholders of record regardless of the beneficial ownership of the shares.

Exercise of your rights as a dissenting stockholder under California law requires strict compliance with the procedures set forth in Chapter 13 of the CCC. Failure to follow any of these procedures may result in a termination or waiver of dissenting stockholder rights under California law. The applicable provisions of California law are summarized below. Forte stockholders who choose to exercise dissenting stockholder rights under California law must fully comply with the requirements of Chapter 13 of the CCC.

Under the CCC, a Forte stockholder may be entitled to dissenting stockholder rights with respect to the shares of Forte Capital Stock held by such stockholder if:

- such shares were outstanding on April 20, 2020, the record date of the Tocagen special meeting;
- such shares were voted "AGAINST" approval of the Merger Agreement, the Merger and the principal terms thereof;
- Forte or its transfer agent has received by no later than the date of the Tocagen special meeting a written demand from such stockholder that Forte purchase such shares at their fair market value, which demand shall (i) state the number of the shares held of record by the stockholders that the stockholder demands that Forte purchase and (ii) contain a statement of what the stockholder claims to the fair market value of those shares as determined pursuant to subdivision (a) of Section 1300 of the CCC (such demand and statement of fair market value will constitute an offer by the stockholder to sell the shares at that price, unless such shares lose their rights as dissenting shares under Section 1309 of the CCC); and
- within 30 days after the date on which notice of the approval of the merger is delivered to such stockholder by Forte (as described below), such stockholder has submitted to Forte or its transfer agent,

(i) if the shares are certificated securities, the certificates representing any shares which such stockholder demands that Forte purchase, to be stamped or endorsed with a statement that the shares are dissenting shares or to be exchanged for certificates of appropriate denomination so stamped or endorsed or (ii) if the shares are uncertificated securities, written notice of the number of shares which such stockholder demands that Forte purchase, all in accordance with Section 1302 of the CCC.

Within 10 days following approval of the merger by Forte stockholders, Forte is required to mail a dissenter's notice to each Forte stockholder who has made a written demand for dissenter's rights pursuant to Chapter 13 of the CCC and who is entitled to dissenting stockholder rights. The dissenter's notice must contain the following:

- a notice of the approval of the Merger;
- a statement of the price determined by Forte to represent the fair market value of the dissenting shares (such statement of fair market value will constitute an offer by Forte to buy the shares at that price, unless such shares lose their rights as dissenting shares under Section 1309 of the CCC);
- a brief description of the procedure for such holders to exercise their rights as dissenting stockholders; and
- a copy of Sections 1300 through 1304 of the CCC.

If upon the dissenting stockholder's surrender of the certificates representing dissenting shares, Forte and such dissenting stockholder agree upon the price to be paid for the dissenting shares and agree that such shares are dissenting shares, then the agreed price is required by law to be paid (with interest thereon at the legal rate on judgments from the date of the agreement) to the dissenting stockholder within the later of (i) 30 days after the date of such agreement upon the price for the dissenting shares or (ii) 30 days after any statutory or contractual conditions to the completion of the merger are satisfied. In the case of certificated securities, such payment shall be subject to surrender of the certificates thereof.

If a dissenting stockholder and Forte disagree as to the fair market value of such dissenting shares or disagree as to whether such shares are entitled to be classified as dissenting shares, such stockholder has the right to bring an action in the superior court of the proper California county, within six months after the date on which the notice of the stockholders' approval of the Merger is mailed, to resolve such dispute. In such action, the court will determine whether the shares of Forte Capital Stock held by such stockholder are dissenting shares, determine the fair market value of such shares of Forte Capital Stock or both, as applicable. If both the status of shares as dissenting shares and the fair market value of such shares are at issue, the court will determine the status of the shares first.

In determining the fair market value for such shares, the court may appoint one or more impartial appraisers to make the determination. Within a time fixed by the court, the appraiser, or, if there is more than one appraiser, a majority of them, will make and file a report with the court. Upon a motion made by any party, the report will be submitted to the court and considered evidence as the court considers relevant. If the appraisers cannot determine the fair market value within 10 days of their appointment, or within a longer time determined by the court, or the court does not confirm their report, then the court will determine the fair market value of the dissenting shares. The costs of the proceedings, including reasonable compensation to the appraisers to be fixed by the court, will be allocated between Forte and the dissenting stockholder(s) as the court deems equitable. However, if the appraisal of the fair market value of the dissenting shares exceeds the price offered by Forte in the notice of approval, then Forte shall pay the costs. If the fair market value of the shares awarded by the court exceeds 125% of the price offered by us, then the court may in its discretion impose additional costs on Forte, including attorneys' fees, fees of expert witnesses and interest.

Forte stockholders considering whether to exercise dissenters' rights should consider that the fair market value of their shares of Forte Capital Stock determined under Chapter 13 of the CCC could be more than, the

same as or less than the value of the consideration to be issued and paid in connection with the Merger, as set forth in the Merger Agreement. Also, Forte reserves the right to assert in any appraisal proceeding that, for purposes thereof, the fair market value of shares of Forte Capital Stock is less than the value of the consideration to be issued and paid in connection with the merger, as set forth in the Merger Agreement. Forte stockholders considering whether to exercise dissenters' rights should consult with their tax advisors for the specific tax consequences of the exercise of dissenters' rights.

If you desire to exercise dissenting stockholder rights and receive the fair market value of your shares of Forte Capital Stock in cash instead of the per share merger consideration, your shares must be voted "AGAINST" the Merger Agreement proposal. It will not be sufficient to abstain from voting or for your shares to be subject to a broker non-vote. If you return a signed proxy without indicating your voting preference or with instructions to vote "FOR" the Merger Agreement proposal, your shares of Forte Capital Stock will be voted in favor of the Merger Agreement proposal and you will lose any dissenting stockholder rights. In addition, a vote against the Merger Agreement proposal will not, in and of itself, constitute a written demand for dissenting stockholder rights within the meaning of Chapter 13 of the CCC.

THE MERGER AGREEMENT

The following is a summary of the material terms of the Merger Agreement. A copy of the Merger Agreement is attached as Appendix A to this proxy statement/prospectus/information statement and is incorporated by reference. The Merger Agreement has been attached to this proxy statement/prospectus/information statement to provide you with information regarding its terms. It is not intended to provide any other factual information about Tocagen, Forte or Merger Sub. The following description does not purport to be complete and is qualified in its entirety by reference to the Merger Agreement. You should refer to the full text of the Merger Agreement for details of the Merger and the terms and conditions of the Merger Agreement.

The Merger Agreement contains representations and warranties that Tocagen and Merger Sub, on the one hand, and Forte, on the other hand, have made to one another as of specific dates. These representations and warranties have been made for the benefit of the other parties to the Merger Agreement and may be intended not as statements of fact but rather as a way of allocating the risk to one of the parties if such statements made in the representations and warranties prove to be incorrect. In addition, the assertions made in the representations and warranties are qualified by the information in confidential disclosure schedules exchanged by the parties in connection with the signing of the Merger Agreement. While Tocagen and Forte do not believe that these disclosure schedules contain information required to be publicly disclosed under the applicable securities laws, other than information that has already been so disclosed, the disclosure schedules contain information that modifies, qualifies and creates exceptions to the representations and warranties set forth in the Merger Agreement. Accordingly, you should not rely on the representations and warranties as current characterizations of factual information about Tocagen, Forte or Merger Sub, because they were made as of specific dates, may be intended merely as a risk allocation mechanism between Tocagen and Merger Sub on the one hand, and Forte on the other hand, and are modified by the disclosure schedules.

Structure

Under the Merger Agreement, Merger Sub, a wholly owned subsidiary of Tocagen formed in connection with the Merger, will merge with and into Forte, with Forte surviving as a wholly owned subsidiary of Tocagen.

Completion and Effectiveness of the Merger

The Merger will be completed as promptly as practicable (but no later than the second business day) after all of the conditions to completion of the Merger are satisfied or waived, including the approval of the stockholders of Tocagen and Forte, unless earlier terminated in accordance with the terms of the Merger Agreement. For more information on termination rights, see the section entitled "*Termination and Termination Fees*" on page 160. The Merger is anticipated to occur after the Tocagen special meeting, which is further described on page 99. Tocagen and Forte cannot predict the exact timing of the completion of the Merger because it is subject to various conditions.

Merger Consideration and Exchange Ratio

Merger Consideration

At the Effective Time each share of Forte Capital Stock outstanding immediately prior to the Effective Time (excluding shares to be canceled pursuant to the Merger Agreement and excluding dissenting shares but including any shares of Forte Capital Stock issued pursuant to the Pre-Closing Financing as per the Merger Agreement) will be automatically converted solely into the right to receive a number of shares of Tocagen Common Stock equal to the Exchange Ratio (as defined below).

No fractional shares of Tocagen Common Stock will be issued in connection with the Merger, and no certificates or scrip for any such fractional shares will be issued. Any holder of Forte Capital Stock who would

otherwise be entitled to receive a fraction of a share of Tocagen Common Stock (after aggregating all fractional shares of Tocagen Common Stock issuable to such holder) will, in lieu of such fraction of a share and upon surrender by such holder of a letter of transmittal in accordance with the Merger Agreement and any accompanying documents as required therein, be paid in cash the dollar amount (rounded to the nearest whole cent), without interest, determined by multiplying such fraction by the Tocagen's volume weighted average closing trading price of a share of Tocagen Common Stock on Nasdaq for the five consecutive trading days ending five trading days immediately prior to the Effective Time.

Exchange Ratio

The Exchange Ratio formula is derived based upon a Forte Equity Value of $49.3 million and a Tocagen Equity Value of $15.0 million and is subject to adjustment based upon (a) the proceeds from the Pre-Closing Financing and (b) Tocagen Net Cash as of the consummation of the Merger (the "Closing") being greater than $10.0 million or less than $7.5 million.

As currently anticipated and assuming an investment of approximately $19.3 million in the Pre-Closing Financing and Tocagen Net Cash of $3.0 million at the Closing of the Merger, the equity holders of Forte immediately before the Merger (inclusive of investors in the Pre-Closing Financing) are expected to own approximately 82.4% of the aggregate number of outstanding shares of Tocagen capital stock immediately after the Closing, and the equity holders of Tocagen immediately before the Merger are expected to own approximately 17.6% of the aggregate number of outstanding shares of Tocagen capital stock immediately after the Closing on a fully-diluted treasury stock method basis, subject to the adjustments described above. As currently anticipated and assuming the reverse stock split to be effected at a ratio in the range of 8-for-1 to 15-for-1 (or as otherwise mutually agreed to by Tocagen and Forte), the Exchange Ratio is expected to be approximately 2.5923. The "Exchange Ratio" is the quotient obtained by dividing (a) (i) the Forte Valuation (as defined below) divided by (ii) the Forte Outstanding Shares (as defined below) by (b) (i) the Tocagen Valuation (as defined below) divided by (ii) the Tocagen Outstanding Shares (as defined below), where:

- "Forte Equity Value" means $40.0 million.
- "Forte Valuation" means (i) if the proceeds of the Pre-Closing Financing is equal to or greater than $10.0 million, the sum of (x) the Forte Equity Value plus (y) the amount by which the proceeds of the Pre-Closing Financing exceed $10.0 million, or (ii) if the proceeds of the Pre-Closing Financing are less than $10.0 million, the sum of (x) the Forte Equity Value minus (y) the amount by which $10.0 million exceeds proceeds of the Pre-Closing Financing.
- "Forte Outstanding Shares" means the total number of shares of Forte Capital Stock outstanding immediately prior to the Effective Time expressed on a fully-diluted, as-converted to Forte Common Stock treasury stock method basis assuming, without limitation or duplication, (i) the exercise of all Forte options and Forte warrants outstanding as of immediately prior to the Effective Time, (ii) the consummation of the Pre-Closing Financing and the issuance of all Forte Capital Stock pursuant to the Securities Purchase Agreement and (iii) the issuance of shares of Forte Capital Stock in respect of all other outstanding options, restricted stock awards or rights to receive such shares, whether conditional or unconditional and including any outstanding options or rights triggered by or associated with the consummation of the Merger (but excluding any shares of Forte Capital Stock reserved for issuance other than with respect to outstanding Forte options under the Forte 2018 Equity Incentive Plan, as amended, as of immediately prior to the Effective Time). Notwithstanding any of the foregoing, no out of the money Forte warrants will be included in the total number of shares of Forte Common Stock outstanding for purposes of determining the Forte Outstanding Shares.
- "Tocagen Equity Value" means $15.0 million.
- "Tocagen Outstanding Shares" means, subject to, among other things, the possibility to effect the Nasdaq reverse split, the total number of shares of Tocagen Common Stock outstanding

immediately prior to the Effective Time expressed on a fully-diluted treasury stock method basis, but assuming, without limitation or duplication, the issuance of shares of Tocagen Common Stock in respect of all Tocagen options, Tocagen restricted stock units, Tocagen warrants, and other outstanding options, warrants or rights to receive such shares, in each case, outstanding as of immediately prior to the Effective Time, whether conditional or unconditional and including any outstanding options, warrants or rights triggered by or associated with the consummation of the Merger. Notwithstanding any of the foregoing, no out of the money Tocagen warrants will be included in the total number of shares of Tocagen Common Stock outstanding for purposes of determining the Tocagen Outstanding Shares.

- "Tocagen Valuation" means (i) if Tocagen Net Cash is greater than $10.0 million, the sum of (x) the Tocagen Equity Value plus (y) the amount by which Tocagen Net Cash exceeds $10.0 million, (ii) if Tocagen Net Cash is equal to or greater than $7.5 million and equal to or less than $10.0 million, the Tocagen Equity Value, or (iii) if Tocagen Net Cash is less than $7.5 million, the sum of (x) the Tocagen Equity Value, minus (y) the amount by which $7.5 million exceeds Tocagen Net Cash.
- "Tocagen Net Cash" means without duplication and consistent with Schedule I attached to the Merger Agreement, (a) the sum of Tocagen's cash and cash equivalents, in each case as of the anticipated closing date, determined in a manner consistent with the manner in which such items were historically determined and in accordance with the financial statements (including any related notes) contained or incorporated by reference in the Tocagen SEC documents and the Tocagen balance sheet, minus (b) the sum of Tocagen's short and long term liabilities accrued at anticipated closing date, in each case determined in a manner consistent with the manner in which such items were historically determined and in accordance with the financial statements (including any related notes) contained or incorporated by reference in the Tocagen SEC documents and the Tocagen balance sheet (including fees and expenses incurred in connection with the contemplated transactions), but including for the avoidance of doubt Transaction Expenses (as defined below) of Tocagen to the extent unpaid as of the closing, minus (c) actual and reasonably projected liabilities related to wind down activities of Tocagen associated with the termination of its research and development activities listed calculated in a manner consistent with the calculations included on Schedule I of the Tocagen disclosure schedule, minus (d) the cash cost of any unpaid change of control payments or severance, termination or similar payments pursuant to a contract that are or become due to any current or former employee, director or independent contractor of Tocagen, or any other third party, in each case in connection with the closing, plus (e) prepaid expenses that are reasonably likely to be utilized by Tocagen and/or the surviving corporation on and following the closing and liabilities set forth on Schedule I that are reasonably likely to be utilized by Tocagen and/or the surviving corporation on and following the closing, plus (f) expenses paid, or liabilities incurred, prior to closing, that are approved in writing to be covered by Tocagen's D&O insurance in excess of the deductible, and plus (g) any net cash proceeds received by, or due to Tocagen within 90 days of closing, from the sale of any Permitted Asset Dispositions (as defined below) prior to closing (net of tax payable by Tocagen on such amounts, if any, determined after taking into account any tax attributes, such as net operating losses and tax credits, that reduce or eliminate such tax) and plus (h) deposits set forth on Schedule I. For illustrative purposes only, a sample statement of Tocagen Net Cash as of the date described therein is set forth on Schedule 1.6 of the Merger Agreement.

The following table illustrates how the Exchange Ratio and post-Merger equity ownership of Forte's stockholders and Tocagen's stockholders (pre-Merger closing) may change if Tocagen Net Cash is between $2.0 million and $4.0 million at the closing of the Merger.

Tocagen Net Cash at Closing	Exchange Ratio	Post-Merger Ownership	
		Forte Equity Holders	Tocagen Equity Holders
$2.0M(1)	2.8652	83.8%	16.2%
$2.5M(1)	2.7219	83.1%	16.9%
$3.0M	2.5923	82.4%	17.6%
$3.5M	2.4745	81.8%	18.2%
$4.0M	2.3669	81.1%	18.9%

(1) If Tocagen Net Cash is below $3.0 million at the closing of the Merger, Tocagen expects that Forte will waive the Net Cash Condition.

Treatment of Forte Stock Options

Under the terms of the Merger Agreement, each option to purchase shares of Forte Common Stock that is outstanding and unexercised immediately prior to the Effective Time, whether or not vested, will be converted into an option to purchase shares of Tocagen Common Stock. Tocagen will assume the Forte 2018 Equity Incentive Plan, as amended, and all rights with respect to each outstanding option to purchase Forte Common Stock in accordance with its terms and the terms of the stock option agreement by which such option is evidenced.

Accordingly, from and after the Effective Time: (i) each outstanding Forte stock option assumed by Tocagen may be exercised solely for shares of Tocagen Common Stock; (ii) the number of shares of Tocagen Common Stock subject to each outstanding option assumed by Tocagen will be determined by multiplying (A) the number of shares of Forte Common Stock that were subject to such Forte stock option, as in effect immediately prior to the Effective Time, by (B) the Exchange Ratio and the Reverse Split, and rounding the resulting number down to the nearest whole number of shares of Tocagen Common Stock; (iii) the per share exercise price for the Tocagen Common Stock issuable upon exercise of each Forte stock option assumed by Tocagen will be determined by dividing (A) the per share exercise price of Forte Common Stock subject to such Forte stock option, as in effect immediately prior to the Effective Time, by (B) the Exchange Ratio and the Reverse Split and rounding the resulting exercise price up to the nearest whole cent; and (iv) any restriction on the exercise of any Forte stock option assumed by Tocagen will continue in full force and effect and the term, exercisability, vesting schedule, accelerated vesting provisions, and any other provisions of such Forte stock option will otherwise remain unchanged; provided, however, that the Tocagen Board or a committee thereof will succeed to the authority and responsibility of Forte Board or any committee thereof with respect to each Forte stock option assumed by Tocagen.

Treatment of Forte Warrants

Under the terms of the Forte warrants issued pursuant to the Securities Purchase Agreement immediately prior to the Merger, upon consummation of the Merger, the surviving corporation will assume the Forte warrants and the obligation to deliver to each holder of the Forte warrants shares of Tocagen Common Stock upon exercise in accordance with the terms and conditions of the Forte warrants. The number of shares of Tocagen Common Stock that is expected to be issued upon exercise of Forte warrants will assume the same Exchange Ratio that applies to the Forte capital stock. The exercise price of the Forte warrants will be equal to the amount obtained by dividing (i) $120.0 million by (ii) the total number of shares of the surviving corporation outstanding immediately following the consummation of the Merger on a fully-diluted basis (excluding any shares issuable pursuant to the Forte warrants).

Treatment of Tocagen Stock Options and Restricted Stock Units

Prior to the closing, the Tocagen Board will have adopted appropriate resolutions to provide that certain unexpired and unexercised Tocagen stock options, whether vested or unvested, will be cancelled effective as of immediately prior to the Effective Time in accordance with the 2009 Plan and the 2017 Plan, as applicable. As of immediately prior to the Effective Time, all outstanding and unexercised options to purchase shares of Tocagen Common Stock with an exercise price of greater than $0.64 will be cancelled and have no further force and effect. All outstanding and unexercised options to purchase shares of Tocagen Common Stock with an exercise price equal to or less than $0.64 will remain effective and outstanding. Such options to remain effective and outstanding are exercisable for an aggregate of 402,500 shares of Tocagen Common Stock. Of the options to remain effective and outstanding, our current executive officers and directors hold options to purchase an aggregate of 145,000 shares of Tocagen Common Stock. All Tocagen restricted stock units will vest at the Effective Time.

Directors and Officers of the Combined Company Following the Merger

The Merger Agreement provides that the parties will use reasonable best efforts and take all necessary action so that immediately after the Effective Time, the Tocagen Board is comprised of eight members, with six such members designated by Forte and two members designated by Tocagen. Paul A. Wagner, Ph.D. will serve as the Chief Executive Officer and President of the combined company.

Amendment of the Certificate of Incorporation of Tocagen

Tocagen agreed to amend its amended and restated certificate of incorporation to (i) effect the Reverse Split, (ii) change Tocagen's name to "Forte Biosciences, Inc." and (iii) make such other changes as are mutually agreeable to the parties.

Conditions to the Completion of the Merger

The obligations of each party to consummate the Merger and the Contemplated Transactions are subject to the satisfaction or, to the extent permitted by applicable law, the written waiver by each of the parties, at or prior to the Closing, of the following conditions:

- there must not have been any temporary restraining order, preliminary or permanent injunction or other order preventing the consummation of the contemplated transactions issued by any court of competent jurisdiction or other governmental body of competent jurisdiction and that remains in effect, and no law may have made the consummation of the contemplated transactions illegal;
- the Tocagen stockholders must have approved the amendment to Tocagen's certificate of incorporation to effect the Nasdaq reverse split, unless mutually agreed between the parties otherwise, the consummation of the Permitted Asset Disposition pursuant to the Merger Agreement and the issuance of Tocagen Common Stock that represent (or are convertible into) more than twenty percent (20%) of the shares of Tocagen Common Stock outstanding immediately prior to the Merger to the Forte stockholders in connection with the contemplated transactions and the change of control of Tocagen resulting from the contemplated transactions, in each case pursuant to the Nasdaq rules (the "Tocagen Closing Stockholder Matters");
- Forte must have delivered an action by written consent by the holders of a majority of each of (i) the holders of a majority of the outstanding shares of the Forte Common Stock and (ii) the holders of a majority of the outstanding shares of the Forte Preferred Stock voting as a single class on an as-converted to Forte Common Stock basis of the holders of any class or series of Forte Capital Stock (the "Required Forte Stockholder Vote") (i) adopting and approving the Merger Agreement and the contemplated transactions, (ii) acknowledging that the approval given thereby is irrevocable and that

such stockholder is aware of its rights to demand appraisal, or assert any dissenters' rights, for its shares pursuant to Section 262 of the DGCL and Chapter 13 of the CCC and that such stockholder has received and read a copy of Section 262 of the DGCL and Chapter 13 of the CCC and (iii) waiving any appraisal or dissenters' rights with respect to the shares received by such stockholder in connection with the Merger (the "Forte Stockholder Matters");

- existing shares of Tocagen Common Stock must have been continually listed on Nasdaq as of and from the date of the Merger Agreement through the closing of the Merger and the shares of Tocagen Common Stock to be issued pursuant to the Merger Agreement must have been approved for listing (subject to official notice of issuance) on Nasdaq as of the Closing; and
- this Registration Statement must be effective in accordance with the provisions of the Securities Act, and must not be subject to any stop order or proceeding (or threatened proceeding by the SEC) seeking a stop order with respect to this Registration Statement that has not been withdrawn;

In addition, the obligation of Tocagen and Merger Sub to complete the Merger is further subject to the satisfaction or waiver of the following conditions:

- the representations and warranties of Forte set forth in the Merger Agreement under sections 2.1 (Due Organization; Subsidiaries), 2.3 (Authority; Binding Nature of Agreement), 2.4 (Vote Required), 2.6(a) and (c) (Capitalization) and 2.20 (No Financial Advisors) must have been true and correct in all material respects as of the date of the Merger Agreement and will be true and correct in all material respects on and as of the Closing date with the same force and effect as if made on and as of such date (except to the extent such representations and warranties are specifically made as of a particular date, in which case such representations and warranties will be true and correct as of such date);
- the representations and warranties of Forte set forth in the Merger Agreement (other than the Forte representations are warranties listed above) will have been true and correct as of the date of the Merger Agreement and will be true and correct on and as of the Closing date with the same force and effect as if made on the Closing date except (a) for those representations and warranties which address matters only as of a particular date (which representations will have been true and correct, subject to the qualifications as set forth in the Merger Agreement, as of such particular date) or (b) in each case, or in the aggregate, where the failure to be true and correct would not reasonably be expected to have a Forte Material Adverse Effect (as defined below) (without giving effect to any references therein to any Forte Material Adverse Effect or other materiality qualifications);
- Forte must have performed and complied with in all material respects all agreements and covenants required to be performed or complied with by it under the Merger Agreement at or prior to the Effective Time;
- Tocagen must have received from Forte (i) an officer's certificate certifying (x) that certain conditions of the Merger Agreement have been duly satisfied and (y) that the information set forth in an allocation certificate delivered by Forte related to Forte's capitalization is true and accurate in all respects; and (ii) the allocation certificate with regard to Forte's capitalization;
- Tocagen must have received (i) an original signed statement from Forte that Forte is not, and has not been at any time during the applicable period specified in Section 897(c)(1)(A)(ii) of the Code, a "United States real property holding corporation," as defined in Section 897(c)(2) of the Code, conforming to the requirements of Treasury Regulations Section 1.1445-2(c)(3) and 1.897-2(h), and (ii) an original signed notice to be delivered to the IRS in accordance with the provisions of Treasury Regulations Section 1.897-2(h)(2), together with written authorization for Tocagen to deliver such notice to the Internal Revenue Service on behalf of Forte following the Closing, each dated as of the Closing date, duly executed by an authorized officer of Forte, and in form and substance reasonably acceptable to Tocagen;

- Forte must not have experienced a Forte Material Adverse Effect since the date of the Merger Agreement that is continuing;
- the Forte investor agreements must have been terminated;
- Tocagen must have received duly executed copies of the required Forte lock-up agreements, each of which must be in full force and effect as of the Closing; and
- The Securities Purchase Agreement will be in full force and effect and the cash proceeds of not less than the $10.0 million will have been received by Forte, or will be received by Forte or Tocagen substantially simultaneously with the Closing, in connection with the consummation of the transactions contemplated by the Securities Purchase Agreement.

In addition, the obligation of Forte to complete the Merger is further subject to the satisfaction or waiver of the following conditions:

- the representations and warranties of Tocagen set forth in the Merger Agreement under sections 3.1(a) (Due Organization; Subsidiaries), 3.3 (Authority; Binding Nature of Agreement), 3.4 (Vote Required), 3.6(a) and (c) (Capitalization) and 3.21 (No Financial Advisors) must will have been true and correct in all material respects as of the date of the Merger Agreement and will be true and correct in all material respects on and as of the Closing date with the same force and effect as if made on and as of such date (except to the extent such representations and warranties are specifically made as of a particular date, in which case such representations and warranties will be true and correct as of such date);
- the representations and warranties of Tocagen and Merger Sub set forth in the Merger Agreement (other than the Tocagen representations and warranties listed above) will have been true and correct as of the date of the Merger Agreement and will be true and correct on and as of the Closing date with the same force and effect as if made on the Closing date except (a) for those representations and warranties which address matters only as of a particular date (which representations will have been true and correct, subject to the qualifications as set forth in the Merger Agreement, as of such particular date) or (b) in each case, or in the aggregate, where the failure to be true and correct would not reasonably be expected to have a Tocagen Material Adverse Effect (as defined below) (without giving effect to any references therein to any Tocagen Material Adverse Effect or other materiality qualifications);
- Tocagen and Merger Sub will have performed or complied with in all material respects all of their agreements and covenants required to be performed or complied with by each of them under the Merger Agreement at or prior to the Effective Time;
- Forte must have received from Tocagen (i) an officer's certificate confirming that certain conditions of the Merger Agreement have been duly satisfied; (ii) a certificate with respect to Tocagen's capitalization; (iii) a written resignation executed by the directors of Tocagen who will not continue as directors of Tocagen after the Closing; and (iv) the Tocagen closing financial certificate, a draft of which will have been provided at least five business days prior to the Closing, which certificate will be accompanied by such supporting documentation, information and calculations as are reasonably requested by Forte to verify and determine the information contained therein;
- Tocagen must not have experienced a Tocagen Material Adverse Effect since the date of the Merger Agreement that is continuing; and
- Tocagen Net Cash is greater than or equal to $3.0 million (the "Net Cash Condition").

"Tocagen Material Adverse Effect" means any effect that, considered together with all other effects, (a) has a material adverse effect on the business, financial condition, operations or results of operations of Tocagen and

its subsidiaries taken as a whole; provided, however, that, in no event will any of the following, alone or in combination, be deemed to constitute, nor will any of the following be taken into account in determining whether there has occurred, a Tocagen Material Adverse Effect: (a) general business or economic conditions affecting the industry in which Tocagen operates, (b) natural disasters, acts of war, armed hostilities or terrorism, (c) changes in financial, banking or securities markets, (d) any change in the stock price or trading volume of Tocagen Common Stock (it being understood, however, that any effect causing or contributing to any change in stock price or trading volume of Tocagen Common Stock may be taken into account in determining whether a Tocagen Material Adverse Effect has occurred, unless such effects are otherwise excepted from this definition), (e) the failure of Tocagen to meet internal or analysts' expectations or projections or the results of operations of Tocagen (it being understood, however, that any effect causing or contributing to such failures to meet projections or predictions may constitute a Tocagen Material Adverse Effect and may, if not otherwise to be disregarded pursuant to a different subclause of this definition, be taken into account in determining whether a Tocagen Material Adverse Effect has occurred); (f) any change in, or any compliance with or action taken for the purpose of complying with, any law or U.S. GAAP (or interpretations of any law or U.S. GAAP), or (g) resulting from the announcement of the Merger Agreement or the pendency of the contemplated transactions, except in each case with respect to clauses (a) through (c), to the extent disproportionately affecting Tocagen relative to other similarly situated companies in the industries in which Tocagen operates.

"Forte Material Adverse Effect" means any effect that, considered together with all other effects (a) has a material adverse effect on the business, financial condition, operations or results of operations of the Forte taken as a whole; provided, however, that, in no event will any of the following, alone or in combination, be deemed to constitute, nor will any of the following be taken into account in determining whether there has occurred, a Forte Material Adverse Effect: (a) general business or economic conditions generally affecting the industry in which Forte operates, (b) natural disasters, acts of war, armed hostilities or terrorism, (c) changes in financial, banking or securities markets, (d) any failure by Forte to meet internal projections or forecasts or third party revenue or earnings predictions for any period ending (or for which revenues or earnings are released) on or after the date of the Merger Agreement (it being understood, however, that any effect causing or contributing to such failures to meet projections or predictions may constitute a Forte Material Adverse Effect and may, if not otherwise to be disregarded pursuant to a different subclause of this definition, be taken into account in determining whether a Forte Material Adverse Effect has occurred), (e) any change in, or any compliance with or action taken for the purpose of complying with, any law or U.S. GAAP (or interpretations of any law or U.S. GAAP), (f) resulting from the announcement of the Merger Agreement or the pendency of the contemplated transactions, (g) resulting from the taking of any action required to be taken by the Merger Agreement; except in each case with respect to clauses (a) through (c), to the extent disproportionately affecting Forte relative to other similarly situated companies in the industries in which Forte operates.

Calculation of Tocagen Net Cash

At least five calendar days prior to the anticipated Closing date, Tocagen will deliver to Forte a schedule (the "Net Cash Schedule") setting forth, in reasonable detail, Tocagen's good faith, estimated calculation of the Tocagen Net Cash as of the anticipated Closing date, prepared and certified by Tocagen's Chief Financial Officer (or if there is no Chief Financial Officer, the principal accounting officer) together with the relevant work papers and back-up materials used in preparing the Net Cash Schedule. Within three calendar days after delivery of the Net Cash Schedule (the "Response Date"), Forte will have the right to dispute any part of the Net Cash Schedule by delivering a written notice to that effect to Tocagen (a "Dispute Notice"). Any Dispute Notice will identify in reasonable detail the nature of any proposed revisions to the Tocagen Net Cash calculation.

If on or prior to the Response Date, Forte (i) notifies Tocagen in writing that it has no objections to the Tocagen Net Cash calculation or (ii) fails to deliver a Dispute Notice, then the Tocagen Net Cash calculation as set forth in the Net Cash Schedule will be deemed to have been finally determined for purposes of the Merger Agreement and to represent Tocagen Net Cash at the anticipated Closing date for purposes of the Merger Agreement.

If Forte delivers a Dispute Notice on or prior to the Response Date, then representatives of both parties will promptly meet and attempt in good faith to resolve the disputed item(s) and negotiate an agreed-upon determination of Tocagen Net Cash, which agreed upon Tocagen Net Cash amount will be deemed to have been finally determined for purposes of the Merger Agreement and to represent the Tocagen Net Cash, at the anticipated closing date for purposes of the Merger Agreement.

If representatives of Tocagen and Forte are unable to negotiate an agreed-upon determination of Tocagen Net Cash, at the anticipated Closing date, within three calendar days after delivery of the Dispute Notice (or such other period as Tocagen and Forte may mutually agree upon), then Tocagen and Forte will jointly select an independent auditor of recognized national standing (the "Accounting Firm") to resolve any remaining disagreements as to the Tocagen Net Cash calculation. Tocagen will promptly deliver to the Accounting Firm the work papers and back-up materials used in preparing the Net Cash Schedule, and Tocagen and Forte will use commercially reasonable efforts to cause the Accounting Firm to make its determination within 10 calendar days of accepting its selection. The Tocagen and Forte will be afforded the opportunity to present to the Accounting Firm any material related to the unresolved disputes and to discuss the issues with the Accounting Firm; *provided, however*, that no such presentation or discussion will occur without the presence of a representative of each of Forte and Tocagen. The determination of the Accounting Firm will be limited to the disagreements submitted to the Accounting Firm. The determination of the amount of Tocagen Net Cash, made by the Accounting Firm will be deemed to have been finally determined for purposes of the Merger Agreement and to represent Tocagen Net Cash, at the anticipated Closing date for purposes of the Merger Agreement, and the parties will delay the Closing until the resolution of the matters described herein. The fees and expenses of the Accounting Firm will be allocated between Tocagen and Forte in the same proportion that the disputed amount of Tocagen Net Cash that was unsuccessfully disputed by such party (as finally determined by the Accounting Firm) bears to the total disputed amount of Tocagen Net Cash, (and for the avoidance of doubt the fees and expenses to be paid by a party will reduce Tocagen Net Cash). If the determination of Tocagen Net Cash at the anticipated closing date and the resolution of the matter is done in accordance with this paragraph, the parties will not be required to determine Tocagen Net Cash, again even though the Closing may occur later than the anticipated closing date, except that either party may request a re-determination of Tocagen Net Cash if the closing date is more than five business days after the anticipated Closing date.

Potential Asset Sale

Tocagen is entitled, but under no obligation, to sell, transfer, license, assign or otherwise divest the potentially transferable assets in a transaction the terms of which are negotiated and consummated on an arm's length basis, including, but not limited to, the transactions contemplated by the term-sheets set forth in Tocagen's disclosure schedule (each an "Permitted Asset Disposition" and collectively, the "Permitted Asset Dispositions"); provided, that any Permitted Asset Disposition, including those described in the Tocagen disclosure schedule, will require the written consent of Forte if such Permitted Asset Disposition would create any material post-disposition liabilities for Tocagen following the closing; provided, further, however, that Tocagen will notify Forte at least five business days prior to entering into any agreement with respect to any Permitted Asset Disposition, provide copies of all written agreements or documents with respect to such sale and provide Forte with an opportunity to provide comments to such documents, which comments will be considered by Tocagen in good faith. Each party acknowledges that Tocagen may not be successful in completing, or may determine not to proceed, with any Permitted Asset Dispositions. For clarity, if the Permitted Asset Dispositions are not completed prior to the Effective Time, the potentially transferable assets will be retained by Tocagen and the value of such potentially transferable assets will have no impact on the calculation of the Exchange Ratio.

Representations and Warranties

The Merger Agreement contains customary representations and warranties of the parties. Forte represents and warrants to the following matters:

- Due Organization; No Subsidiaries

- Organizational Documents
- Authority; Binding Nature of Agreement
- Vote Required
- Non-Contravention; Consents
- Capitalization
- Financial Statements
- Absence of Changes
- Absence of Undisclosed Liabilities
- Title to Assets
- Real Property; Leasehold
- Intellectual Property
- Agreements, Contracts and Commitments
- Compliance; Permits; Restrictions
- Legal Proceedings; Orders
- Tax Matters
- Employee and Labor Matters; Benefit Plans
- Environmental Matters
- Insurance
- No Financial Advisors
- Disclosure
- Transactions with Affiliates
- Anti-Bribery

Tocagen and Merger Sub represent and warrant to the following matters:

- Due Organization; No Subsidiaries
- Organizational Documents
- Authority; Binding Nature of Agreement
- Vote Required
- Non-Contravention; Consents
- Capitalization
- SEC Filings; Financial Statements
- Absence of Changes
- Absence of Undisclosed Liabilities
- Title to Assets
- Real Property; Leasehold
- Intellectual Property

- Agreements, Contracts and Commitments
- Compliance; Permits
- Legal Proceedings; Orders
- Tax Matters
- Employee and Labor Matters; Benefit Plans
- Environmental Matters
- Transactions with Affiliates
- Insurance
- No Financial Advisors
- Anti-Bribery
- Valid Issuance
- Shell Company Status
- Opinion of Financial Advisor
- Disclosure

The representations and warranties of Forte, Tocagen and Merger Sub contained in the Merger Agreement or any certificate or instrument delivered pursuant to the Merger Agreement will terminate at the Effective Time, and only the covenants that by their terms survive the Effective Time and certain miscellaneous provisions of the Merger Agreement will survive the Effective Time.

Non-Solicitation

Both Tocagen and Forte are prohibited by the terms of the Merger Agreement, other than as necessary to communicate, discuss, negotiate or consummate the Permitted Asset Dispositions by Tocagen, from (i) soliciting, initiating or knowingly encouraging, inducing or facilitating the communication, making, submission or announcement of any Acquisition Proposal (as defined below) or Acquisition Inquiry (as defined below) or taking any action that could reasonably be expected to lead to an Acquisition Proposal or Acquisition Inquiry; (ii) furnishing any non-public information regarding Tocagen to any person in connection with or in response to an Acquisition Proposal or Acquisition Inquiry; (iii) engaging in discussions or negotiations with any person with respect to any Acquisition Proposal or Acquisition Inquiry; (iv) approving, endorsing or recommending any Acquisition Proposal; (v) executing or entering into any letter of intent or any contract contemplating or otherwise relating to any Acquisition Transaction (as defined below) (other than a confidentiality agreement permitted as per the below paragraph); or (vi) publicly proposing to do any of the foregoing.

Pursuant to the terms of the Merger Agreement, each of Tocagen and Forte agreed to immediately cease any existing discussions, negotiations and communications with any person relating to any Acquisition Proposal or Acquisition Inquiry as of the date of the Merger Agreement and request the destruction or return of any of such party's nonpublic information.

Subject to certain restrictions and prior to obtaining the Required Tocagen Stockholder Vote (as defined below) (in the case of Tocagen) or the Required Forte Stockholder Vote (as defined below) (in the case of Forte), Tocagen or Forte, as applicable, may furnish non-public information regarding Tocagen or Forte, as the case may be, to, and enter into discussions or negotiations with, any person in response to a *bona fide* Acquisition Proposal by such person, which its board of directors determines in good faith, after consultation with its outside financial advisors and outside legal counsel, constitutes, or could be reasonably likely to result in, a Superior Offer (as

defined below (and is not withdrawn) if: (A) neither it nor any of its representatives will have breached the non-solicitation restrictions in the Merger Agreement in any material respect, (B) its board of directors concludes in good faith based on the advice of outside legal counsel, that the failure to take such action would be reasonably likely to be inconsistent with the fiduciary duties of the its board of directors under applicable law; (C) it receives from such person an executed confidentiality agreement containing provisions, in the aggregate, at least as favorable to it as those contained in the non-disclosure and confidentiality agreement, dated as of December 6, 2019 between Forte and Tocagen; and (D) substantially contemporaneously with furnishing any such nonpublic information to such person, it furnishes such nonpublic information to the other party (to the extent such information has not been previously furnished to the other party).

If Tocagen or Forte, or any of their respective representatives, receives an Acquisition Proposal or Acquisition Inquiry prior to the closing of the Merger, then such party will promptly (and in no event later than one business day after it becomes aware of such Acquisition Proposal or Acquisition Inquiry) advise the other party orally and in writing of such Acquisition Proposal or Acquisition Inquiry (including the identity of the person making or submitting such Acquisition Proposal or Acquisition Inquiry and the material terms of the Acquisition Proposal or Acquisition Inquiry) and provide a copy of all material written materials relating to such Acquisition Proposal or Acquisition Inquiry. Each party will keep the other party informed on a current basis with respect to the status and material terms of any such Acquisition Proposal or Acquisition Inquiry and any material modification thereto.

"Acquisition Proposal" means, with respect to a party, any offer or proposal, whether written or oral (other than an offer or proposal made or submitted by or on behalf of Forte or any of its affiliates, on the one hand, or by or on behalf of Tocagen or any of its affiliates, on the other hand, to the other party) contemplating or otherwise relating to or which would reasonably be interpreted to lead to any Acquisition Transaction with such party, other than the Permitted Asset Dispositions.

"Acquisition Inquiry" means, with respect to a party, an inquiry, indication of interest or request for information (other than an inquiry, indication of interest or request for information made or submitted by Forte, on the one hand, or Tocagen, on the other hand, to the other party) that would reasonably be expected to lead to an Acquisition Proposal.

"Acquisition Transaction" means any transaction or series of related transactions (other than the Permitted Asset Dispositions) involving:

- any merger, consolidation, amalgamation, share exchange, business combination, issuance of securities, acquisition of securities, reorganization, recapitalization, tender offer, exchange offer or other similar transaction: (i) in which a party is a constituent entity; (ii) in which a person or "group" (as defined in the Exchange Act and the rules promulgated thereunder) of persons directly or indirectly acquires beneficial or record ownership of securities representing more than 20% of the outstanding securities of any class of voting securities of a party or any of its subsidiaries; or (iii) in which a party or any of its subsidiaries issues securities representing more than 20% of the outstanding securities of any class of voting securities of such party or any of its subsidiaries; provided, that in the case of Forte, the Pre-Closing Financing will not be an "Acquisition Transaction"; or
- any sale, lease, exchange, transfer, license, acquisition or disposition of any business or businesses or assets that constitute or account for 20% or more of the consolidated book value or the fair market value of the assets of a party and its subsidiaries, taken as a whole.

"Superior Offer" means an unsolicited bona fide written Acquisition Proposal (with all references to 20% in the definition of Acquisition Transaction being treated as references to greater than 50% for these purposes) that: (a) was not obtained or made as a direct or indirect result of a breach of (or in violation of) the Merger Agreement; and (b) is on terms and conditions that the Tocagen Board or Forte Board, as applicable, determines in good faith, based on such matters that it deems relevant (including the likelihood of consummation thereof), as

well as any written offer by the other party to the Merger Agreement to amend the terms of the Merger Agreement, and following consultation with its outside legal counsel and outside financial advisors, if any, are more favorable, from a financial point of view, to Tocagen's stockholders or Forte's stockholders, as applicable, than the terms of the contemplated transactions.

Tocagen Stockholder Meeting

Promptly after this proxy statement/prospectus/information statement has been declared effective by the SEC under the Securities Act, Tocagen will take all action necessary under applicable law to call, give notice of and hold the Tocagen special meeting for the purpose of seeking approval of (i) the Tocagen Closing Stockholder Matters and (ii) approve a postponement or adjournment of the Tocagen special meeting, if necessary, to solicit addition proxies if there are not sufficient votes in favor of the Tocagen Closing Stockholder Matters.

The Tocagen special meeting will be held as promptly as practicable after this proxy statement/prospectus/information statement is declared effective under the Securities Act. Tocagen will take reasonable measures to ensure that all proxies solicited in connection with the Tocagen special meeting are solicited in compliance with all applicable law. If, on or before the date of the Tocagen special meeting, Tocagen reasonably believes that it (i) will not receive proxies sufficient to obtain the required approvals of the Tocagen Closing Stockholder Matters (the "Required Tocagen Stockholder Vote"), whether or not a quorum would be present or (ii) will not have sufficient shares of Tocagen Common Stock represented to constitute a quorum necessary to conduct the business of the Tocagen special meeting, Tocagen may postpone or adjourn the Tocagen special meeting as long as the date of the Tocagen special meeting is not postponed or adjourned more than an aggregate of 60 calendar days in connection with any postponements or adjournments; provided, however, that more than one such postponement or adjournment will not be permitted without Forte's prior written consent.

Tocagen agreed that, subject to certain exceptions in the Merger Agreement: (i) the Tocagen Board will recommend that the holders of Tocagen Common Stock vote to approve the Tocagen Closing Stockholder Matters and Tocagen will use commercially reasonable efforts to solicit such approval, (ii) this proxy statement/prospectus/information statement will include a statement to the effect that the Tocagen Board recommends that Tocagen's stockholders vote to approve the Tocagen Closing Stockholder Matters (the recommendation of the Tocagen Board with respect to the Tocagen Closing Stockholder Matters being referred to as the "Tocagen Board Recommendation"); and (iii) the Tocagen Board Recommendation will not be withheld, amended, withdrawn or modified (and the Tocagen Board will not resolve or publicly propose or agree to withhold, amend, withdraw or modify the Tocagen Board Recommendation) in a manner adverse to Forte (the actions set forth in the foregoing clause (iii), collectively, a "Tocagen Triggering Event").

The terms of the Merger Agreement provide that if at any time prior to the approval of Tocagen Closing Stockholder Matters by the Required Tocagen Stockholder Vote, Tocagen receives a written Acquisition Proposal (which did not arise out of a material breach of the Merger Agreement) from any person that has not been withdrawn and after consultation with outside legal counsel, the Tocagen Board will have determined, in good faith, that such Acquisition Proposal is a Superior Offer, the Tocagen Board may make a Tocagen Triggering Event, if and only if all of the following apply: (A) the Tocagen Board determines in good faith, after consultation with Tocagen's outside legal counsel, that the failure to do so would be inconsistent with the fiduciary duties of the Tocagen Board to the Tocagen's stockholders under applicable law; (B) Tocagen has given Forte prior written notice of its intention to consider making a Tocagen Triggering Event or terminate the Merger Agreement for a Tocagen Triggering Event (as defined below) at least three business days prior to making any such Tocagen Triggering Event or termination (a "Tocagen Determination Notice") (which notice will not constitute a Tocagen Triggering Event); and (C) (1) Tocagen has provided to Forte a summary of the material terms and conditions of the Acquisition Proposal in accordance with the Merger Agreement, (2) Tocagen has given Forte five business days after the Tocagen Determination Notice to propose revisions to the terms of this Agreement or make another proposal and has made its representatives reasonably available to negotiate in good faith with Forte (to the extent Forte desires to negotiate) with respect to such proposed

revisions or other proposal, if any, and (3) after considering the results of any such negotiations and giving effect to the proposals made by Forte, if any, after consultation with outside legal counsel, the Tocagen Board has determined, in good faith, that such Acquisition Proposal is a Superior Offer and that the failure to make the Tocagen Triggering Event would be inconsistent with the fiduciary duties of the Tocagen Board to the Tocagen's stockholders under applicable law. The provisions of the Merger Agreement described in this paragraph also Tocagen to any material change to the facts and circumstances relating to such Acquisition Proposal and require a new Forte Determination Notice, except that the references to three business days will be deemed to be two business days.

The terms of the Merger Agreement also provide that, other than in connection with an Acquisition Proposal, the Tocagen Board may make a Tocagen Triggering Event in response to a Tocagen change in circumstance, if and only if: (A) the Tocagen Board determines in good faith, after consultation with the Tocagen's outside legal counsel, that the failure to do so would be inconsistent with the fiduciary duties of the Tocagen Board to Tocagen's stockholders under applicable law; (B) Tocagen has given Forte a Tocagen Determination Notice at least three business days prior to making any such Tocagen Triggering Event; and (C) (1) Tocagen has specified the Tocagen change in circumstance in reasonable detail, (2) Tocagen has given Forte three business days after the Tocagen Determination Notice to propose revisions to the terms of the Merger Agreement or make another proposal, and will have made its representatives reasonably available to negotiate in good faith with Forte with respect to such proposed revisions or other proposal, if any, and (3) after considering the results of any such negotiations and giving effect to the proposals made by Forte, if any, after consultation with outside legal counsel, the Tocagen Board has determined, in good faith, that the failure to make the Tocagen Triggering Event in response to such Tocagen change in circumstance would be inconsistent with the fiduciary duties of the Tocagen Board to the Tocagen's stockholders under applicable law. The provisions of the Merger Agreement described in this paragraph also apply to any material change to the facts and circumstances relating to such Tocagen change in circumstance and require a new Tocagen Determination Notice, except that the references to three business days will be deemed to be two business days.

Forte Stockholder Action by Written Consent

The Merger Agreement contemplates that, promptly after this Registration Statement will have been declared effective under the Securities Act, and in any event no later than three business days thereafter, Forte will prepare, with the cooperation of Tocagen, and commence mailing to its stockholders an information statement, which will include a copy of this proxy statement/prospectus/information statement. Within five business days following the effectiveness of this Registration Statement, Forte will deliver an action by written consent (the "Forte Stockholder Written Consent") containing the Required Forte Stockholder Vote.

Forte agreed that, subject to certain exceptions in the Merger Agreement: (i) the Forte Board will recommend that the Forte stockholders vote to approve the Forte Stockholder Matters and will use reasonable best efforts to solicit such approval from each of the Forte stockholders necessary to deliver the Forte Stockholder Written Consent evidencing the Required Forte Stockholder Vote within five business days following the effectiveness of this Registration Statement (the recommendation of the Forte Board that Forte's stockholders vote to adopt and approve the Merger Agreement being referred to as the "Forte Board Recommendation"); and (ii) the Forte Board Recommendation will not be withdrawn or modified (and the Forte Board will not publicly propose to withdraw or modify the Forte Board Recommendation) in a manner adverse to Tocagen, and no resolution by the Forte Board or any committee thereof to withdraw or modify the Forte Board Recommendation in a manner adverse to Tocagen or to adopt, approve or recommend (or publicly propose to adopt, approve or recommend) any Acquisition Proposal will be adopted or proposed (the actions set forth in the foregoing clause (ii), collectively, a "Forte Triggering Event").

The terms of the Merger Agreement provide that if at any time prior to the approval of Forte Stockholder Matters by the Required Forte Stockholder Vote, Forte receives a written Acquisition Proposal (which did not arise out of a material breach of the Merger Agreement) from any person that has not been withdrawn and after

consultation with outside legal counsel, the Forte Board will have determined, in good faith, that such Acquisition Proposal is a Superior Offer, the Forte Board may make a Forte Triggering Event, if and only if all of the following apply: (A) the Forte Board determines in good faith, after consultation with Forte's outside legal counsel, that the failure to do so would be inconsistent with the fiduciary duties of the Forte Board to the Forte's stockholders under applicable law; (B) Forte has given Tocagen prior written notice of its intention to consider making a Forte Triggering Event at least three business days prior to making any such Forte Triggering Event (a "Forte Determination Notice") (which notice will not constitute a Forte Triggering Event); and (C) (1) Forte has provided to Tocagen a summary of the material terms and conditions of the Acquisition Proposal in accordance with the Merger Agreement, (2) Forte has given Tocagen five business days after the Forte Determination Notice to propose revisions to the terms of the Merger Agreement or make another proposal and has made its representatives reasonably available to negotiate in good faith with Tocagen (to the extent Tocagen desires to negotiate) with respect to such proposed revisions or other proposal, if any, and (3) after considering the results of any such negotiations and giving effect to the proposals made by Tocagen, if any, after consultation with outside legal counsel, the Forte Board has determined, in good faith, that such Acquisition Proposal is a Superior Offer and that the failure to make the Forte Triggering Event would be inconsistent with the fiduciary duties of the Forte Board to the Forte's stockholders under applicable law. The provisions of the Merger Agreement described in this paragraph also apply to any material change to the facts and circumstances relating to such Acquisition Proposal and require a new Forte Determination Notice, except that the references to three business days will be deemed to be two business days.

The terms of the Merger Agreement also provide that, other than in connection with an Acquisition Proposal, the Forte Board may make a Forte Triggering Event in response to a Forte change in circumstance, if and only if: (A) the Forte Board determines in good faith, after consultation with Forte's outside legal counsel, that the failure to do so would be inconsistent with the fiduciary duties of the Forte Board to Forte's stockholders under applicable law; (B) Forte has given Tocagen a Forte Determination Notice at least three business days prior to making any such Forte Triggering Event; and (C) (1) Forte has specified the Forte change in circumstance in reasonable detail, (2) Forte has given Tocagen three business days after the Forte Determination Notice to propose revisions to the terms of the Merger Agreement or make another proposal, and will have made its representatives reasonably available to negotiate in good faith with Tocagen (to the extent Tocagen desires to do so) with respect to such proposed revisions or other proposal, if any, and (3) after considering the results of any such negotiations and giving effect to the proposals made by Tocagen, if any, after consultation with outside legal counsel, the Forte Board has determined, in good faith, that the failure to make the Forte Triggering Event in response to such Forte change in circumstance would be inconsistent with the fiduciary duties of the Forte Board to the Forte's stockholders under applicable law. The provisions of the Merger Agreement described in this paragraph also apply to any material change to the facts and circumstances relating to such Forte change in circumstance and require a new Forte Determination Notice, except that the references to three business days will be deemed to be two business days.

Forte Dissenters' Rights

Forte stockholders are entitled to assert statutory appraisal/dissenters' rights in connection with the Merger pursuant to Section 262 of the DGCL and Chapter 13 of the CCC with respect to their shares of Forte Capital Stock. Tocagen stockholders are not entitled to appraisal rights in connection with the Merger. For more information on these appraisal and dissenters' rights, see the section entitled "*The Merger—Appraisal Rights and Dissenters' Rights*" beginning on page 137 of this proxy statement/prospectus/information statement.

Covenants; Operation of Business Pending the Merger

During the period from the date of the Merger Agreement and continuing until the earlier of the termination of the Merger Agreement or the Effective Time, except as set forth in the Merger Agreement, as required by applicable law or unless Forte consents in writing, Tocagen has agreed to conduct its business and operations in

the ordinary course of business and in compliance in all material respects with all applicable laws and the requirements of all of its materials contracts, and will not:

- declare, accrue, set aside or pay any dividend or make any other distribution in respect of any shares of its capital stock or repurchase, redeem or otherwise reacquire any shares of its capital stock or other securities (except in connection with the payment of the exercise price and/or withholding taxes incurred upon the exercise, settlement or vesting of any award granted under Tocagen's stock plans);
- sell, issue, grant, pledge or otherwise dispose of or encumber or authorize any of the foregoing with respect to: (A) any capital stock or other security of Tocagen (except for Tocagen Common Stock issued upon the valid exercise of outstanding Tocagen options, Tocagen restricted stock units or Tocagen warrants); (B) any option, warrant or right to acquire any capital stock or any other security other than option grants or Tocagen restricted stock unit grants to employees and service providers in the ordinary course of business which are included in the calculation of the Forte Outstanding Shares; or (C) any instrument convertible into or exchangeable for any capital stock or other security of Tocagen;
- except as required to give effect to anything in contemplation of the closing, amend any of its organizational documents, or effect or be a party to any merger, consolidation, share exchange, business combination, recapitalization, reclassification of shares, stock split, reverse stock split or similar transaction except, for the avoidance of doubt, the contemplated transactions;
- form any subsidiary or acquire any equity interest or other interest in any other entity or enter into a joint venture with any other entity;
- redeem, repurchase or otherwise acquire, directly or indirectly, any shares of Tocagen Common Stock;
- (A) lend money to any person (except for the advancement of expenses to employees and directors in the ordinary course of business), (B) incur or guarantee any indebtedness for borrowed money, (C) guarantee any debt securities of others, or (D) other than the incurrence or payment of any Transaction Expenses, make any capital expenditure in excess of the specifically budgeted capital expenditure amounts set forth in Tocagen's operating budget delivered to Forte;
- forgive any loans to any person, including its employees, officers, directors or affiliates;
- other than as required by applicable law or the terms of any Tocagen benefit plan: (A) adopt, terminate, establish or enter into any Tocagen benefit plan; (B) cause or permit any Tocagen benefit plan to be amended in any respect; (C) pay any bonus or make any profit-sharing or similar payment to, or increase the amount of the wages, salary, commissions, benefits or other compensation or remuneration payable to, any of its directors, officers or employees other than increases in base salary and annual cash bonus opportunities and payments made in the ordinary course of business which do not exceed, in the aggregate the amounts specifically budgeted therefor in the Tocagen budget; (D) increase the severance or change of control benefits offered to any current or new employees, directors or consultants or (E) hire, terminate or give notice of termination to any (x) officer or (y) employee;
- recognize any labor union, labor organization, or similar person except as otherwise required by applicable law and after prior written consent of Forte which consent will not be unreasonably withheld or delayed;
- acquire any material asset or sell, lease or otherwise irrevocably dispose of any of its assets or properties, or grant any encumbrance with respect to such assets or properties;
- either solely or in collaboration with any third party, directly or indirectly, commence, enter, join, revive, solicit, or otherwise get engaged in, any clinical trial other than the clinical trials existing

on or prior to the date of the Merger Agreement and disclosed by Tocagen on its disclosure schedule;

- sell, assign, transfer, license, sublicense or otherwise dispose of any material Tocagen intellectual property (other than pursuant to non-exclusive licenses in the ordinary course of business);
- make, change or revoke any material tax election, fail to pay any income or other material tax as such tax becomes due and payable, file any amendment making any material change to any tax return, settle or compromise any income or other material tax liability, enter into any tax allocation, sharing, indemnification or other similar agreement or arrangement (other than customary commercial contracts entered into in the ordinary course of business the principal subject matter of which is not taxes), request or consent to any extension or waiver of any limitation period with respect to any claim or assessment for any income or other material taxes (other than pursuant to an extension of time to file any tax return granted in the ordinary course of business of not more than six months), or adopt or change any material accounting method in respect of taxes;
- enter into, materially amend or terminate any Tocagen material contract;
- other than the incurrence or payment of any Transaction Expenses, make any expenditures, or discharge or satisfy any liabilities, in each case, in amounts that exceed the aggregate amount of the Tocagen budget by $25,000;
- other than as required by law or U.S. GAAP, take any action to change accounting policies or procedures;
- initiate or settle any legal proceeding; or
- agree, resolve or commit to do any of the foregoing.

During the period from the date of the Merger Agreement and continuing until the earlier of the termination of the Merger Agreement or the Effective Time, except as set forth in the Merger Agreement, as required by applicable law or unless Tocagen consents in writing, Forte will conduct its business and operations in the ordinary course of business and in compliance in all material respects with all applicable laws and the requirements of all of its material contracts, and will not:

- declare, accrue, set aside or pay any dividend or make any other distribution in respect of any shares of its capital stock or repurchase, redeem or otherwise reacquire any shares of its capital stock or other securities (except in connection with the payment of the exercise price and/or withholding taxes incurred upon the exercise, settlement or vesting of any award granted under the 2018 Forte Equity Incentive Plan, as amended);
- sell, issue, grant, pledge or otherwise dispose of or encumber or authorize any of the foregoing with respect to: (A) any capital stock or other security of Forte (except for shares of outstanding Forte Common Stock issued upon the valid exercise of Forte options); (B) any option, warrant or right to acquire any capital stock or any other security, other than option grants to employees and service providers in the ordinary course of business which are included in the calculation of the Tocagen Outstanding Shares; or (C) any instrument convertible into or exchangeable for any capital stock or other security of Forte;
- except as required to give effect to anything in contemplation of the closing, amend any of its organizational documents, or effect or be a party to any merger, consolidation, share exchange, business combination, recapitalization, reclassification of shares, stock split, reverse stock split or similar transaction except, for the avoidance of doubt, in connection with the contemplated transactions;
- acquire any equity interest or other interest in any other entity or enter into a joint venture with any other entity;

- (A) lend money to any person (except for the advancement of expenses to employees and directors in the ordinary course of business), (B) incur or guarantee any indebtedness for borrowed money, (C) guarantee any debt securities of others, or (D) make any capital expenditure, in each case, in excess of $50,000;
- recognize any labor union, labor organization, or similar person except as otherwise required by applicable law;
- make, change or revoke any material tax election, fail to pay any income or other material tax as such tax becomes due and payable, file any amendment making any material change to any tax return, settle or compromise any income or other material tax liability, enter into any tax allocation, sharing, indemnification or other similar agreement or arrangement (other than customary commercial contracts entered into in the ordinary course of business the principal subject matter of which is not taxes), request or consent to any extension or waiver of any limitation period with respect to any claim or assessment for any income or other material taxes (other than pursuant to an extension of time to file any tax return granted in the ordinary course of business of not more than six months), or adopt or change any material accounting method in respect of taxes;
- enter into, materially amend or terminate any Forte material contract;
- other than as required by law or U.S. GAAP, take any action to change accounting policies or procedures;
- initiate or settle any legal proceeding with an underlying value in excess of $250,000; or
- agree, resolve or commit to do any of the foregoing.

Termination and Termination Fees

The Merger Agreement may be terminated prior to the Effective Time (whether before or after the required stockholder approvals to complete the Merger have been obtained, unless otherwise specified below):

(a) By mutual written consent of Tocagen and Forte;

(b) By either Tocagen or Forte if the Contemplated Transactions have not been consummated by August 19, 2020 (other than in cases in which such failure to consummate the Contemplated Transactions is due to a party's action or failure to act that has been a principal cause of the failure of the Contemplated Transactions to occur on or before August 19, 2020 and such action or failure to act constitutes a breach of the Merger Agreement), subject to (i) an extension of 60 days in the event that a request for additional information has been made by any governmental body, or in the event that the SEC has not declared effective under the Exchange Act the Registration Statement by the date which is 30 calendar days prior to August 19, 2020, but in the event Forte makes such an extension it will first waive the conditions regarding the Tocagen Net Cash requirement in writing;

(c) By either Tocagen or Forte if a court of competent jurisdiction or other governmental body will have issued a final and non-appealable order, decree or ruling, or will have taken any other action, having the effect of permanently restraining, enjoining or otherwise prohibiting the contemplated transactions;

(d) By Tocagen if the Forte Stockholder Written Consent executed by each signatory determined by the Merger Agreement will not have been obtained within five business days of the Registration Statement becoming effective in accordance with the provisions of the Securities Act; *provided*, *however*, that once the Forte Stockholder Written Consent has been obtained, Tocagen may not terminate the Merger Agreement pursuant to this paragraph;

(e) by either Tocagen or Forte if (i) the Tocagen special meeting (including any adjournments and postponements thereof) will have been held and completed and (ii) the Tocagen Closing Stockholder Matters will not have been approved at such Tocagen special meeting by the Required Tocagen Stockholder Vote;

(f) by Forte (at any time prior to the approval of the Tocagen Closing Stockholder Matters by the Required Tocagen Stockholder Vote) if a Tocagen Triggering Event will have occurred;

(g) by Tocagen (at any time prior to the Required Forte Stockholder Vote being obtained) if a Forte Triggering Event will have occurred;

(h) by Forte, upon a breach of any representation, warranty, covenant or agreement set forth in the Merger Agreement by Tocagen or Merger Sub or if any representation or warranty of Tocagen or Merger Sub will have become inaccurate, in either case, such that certain closing conditions set forth in the Merger Agreement would not be satisfied as of the time of such breach or as of the time such representation or warranty will have become inaccurate; *provided* that Forte is not then in material breach of any representation, warranty, covenant or agreement under the Merger Agreement; *provided*, *further*, that if such inaccuracy in Tocagen's or Merger Sub's representations and warranties or breach by Tocagen or Merger Sub is curable by August 19, 2020 by Tocagen or Merger Sub, then the Merger Agreement will not terminate pursuant to this paragraph as a result of such particular breach or inaccuracy until the earlier of (i) August 19, 2020 and (ii) the expiration of a 30 calendar day period commencing upon delivery of written notice from Forte to Tocagen or Merger Sub of such breach or inaccuracy and its intention to terminate pursuant to this paragraph (it being understood that the Merger Agreement will not terminate pursuant to this paragraph as a result of such particular breach or inaccuracy if such breach by Tocagen or Merger Sub is cured prior to such termination becoming effective);

(i) by Tocagen, upon a breach of any representation, warranty, covenant or agreement set forth in the Merger Agreement by Forte or if any representation or warranty of Forte will have become inaccurate, in either case, such that certain closing conditions set forth in the Merger Agreement would not be satisfied as of the time of such breach or as of the time such representation or warranty will have become inaccurate; *provided* that Tocagen is not then in material breach of any representation, warranty, covenant or agreement under this Agreement; *provided*, *further*, that if such inaccuracy in the Forte's representations and warranties or breach by Forte is curable by August 19, 2020 by Forte then this Agreement will not terminate pursuant to this paragraph as a result of such particular breach or inaccuracy until the earlier of (i) August 19, 2020 and (ii) the expiration of a 30 calendar day period commencing upon delivery of written notice from Tocagen to Forte of such breach or inaccuracy and its intention to terminate pursuant to this paragraph (it being understood that the Merger Agreement will not terminate pursuant to this paragraph as a result of such particular breach or inaccuracy if such breach by Forte is cured prior to such termination becoming effective);

(j) by Tocagen, at any time, if (i) Tocagen has received a Superior Offer, (ii) Tocagen has complied with its non-solicitation obligations with respect to such Superior Offer, (iii) Tocagen concurrently terminates the Merger Agreement and enters into a permitted alternative agreement with respect to such Superior Offer and (iv) substantially concurrently with such termination, Tocagen pays to Forte the applicable termination fee; or

(k) by Tocagen, if Forte's audited financial statements have not been provided by Forte to Tocagen within 60 calendar days of the date of the Merger Agreement, *provided* that Tocagen will not be entitled to terminate the Merger Agreement pursuant to this paragraph after the time such Forte audited financial statements have been delivered.

The party desiring to terminate the Merger Agreement will give the other party written notice of such termination, specifying the provisions hereof pursuant to which such termination is made and the basis therefor described in reasonable detail.

"Forte Triggering Event" will be deemed to have occurred if: (a) Forte will have made a Forte Triggering Event; (b) the Forte Board or any committee thereof will have publicly approved, endorsed or recommended any Acquisition Proposal; or (c) Forte will have entered into any letter of intent or similar document relating to any Acquisition Proposal in violation of the terms of the Merger Agreement.

"Tocagen Triggering Event" will be deemed to have occurred if: (a) Tocagen will have failed to include in the proxy statement the Tocagen Board Recommendation or will have made a Tocagen Triggering Event; (b) the Tocagen Board or any committee thereof will have publicly approved, endorsed or recommended any Acquisition Proposal; or (c) Tocagen will have entered into any letter of intent or similar document relating to any Acquisition Proposal (other than a confidentiality agreement permitted pursuant to the Merger Agreement) in violation of the terms of the Merger Agreement.

Tocagen must pay Forte a termination fee of (1) $500,000 if (A) (x) in connection with the termination of the Merger Agreement pursuant to clause (b), (e) or (h) above, (y) at any time after the date of the Merger Agreement and before such termination, an Acquisition Proposal with respect to Tocagen will have been either publicly announced or disclosed to Tocagen or the Tocagen Board, in each case after the date of the Merger Agreement but prior to the termination of the Merger Agreement and (z) within 12 months after the date of such termination, Tocagen consummates a subsequent transaction, whether or not in respect of the Acquisition Proposal referred to in clause (z) or (B) in connection with the termination of the Merger Agreement pursuant to clause (f) above; or (2) $750,000 in connection with the termination of the Merger Agreement pursuant to clause (j) above.

Forte must pay Tocagen a termination fee of (1) $1.0 million if (A) in connection with the termination of the Merger Agreement pursuant to clause (b), (e) or (i) above, (B) at any time after the date of the Merger Agreement and before such termination, an Acquisition Proposal with respect to Forte will have been either publicly announced or disclosed to Forte or the Forte Board, in each case after the date of the Merger Agreement but prior to the termination of the Merger Agreement and (C) within 12 months after the date of such termination, Forte consummates a subsequent transaction, whether or not in respect of the Acquisition Proposal referred whether or not in respect of the Acquisition Proposal referred to in clause (B) above; or (2) $3.0 million in connection with the termination of the Merger Agreement pursuant to clause (g) above.

If the Merger Agreement is terminated pursuant to clause (e) above, Tocagen will, within two business days of receipt of an invoice therefor, reimburse Forte for 50% of the Transaction Expenses incurred by Forte in connection with the contemplated transactions; provided that in no event will such expense reimbursement be in an amount greater than $250,000.

In addition to the termination fees described above, if Tocagen terminates the Denovo Purchase Agreement in connection with a termination of the Merger Agreement pursuant to clause (j) above, Tocagen will be required to pay a termination fee of an amount in cash equal to $200,000 to Denovo and up to an additional $50,000 of Denovo's documented legal fees incurred pursuant to the Denovo Asset Purchase Agreement.

Other Agreements

Director Indemnification and Insurance

The Merger Agreement provides that, from the Effective Time through the sixth anniversary of the date on which the Effective Time occurs, Tocagen and the surviving company will fulfill Tocagen and Forte's indemnity obligations, respectively, to each person who is, has been, or who becomes prior to the Effective Time, a director or officer of Tocagen or Forte.

The Merger Agreement also provides that the provisions relating to the indemnification, advancement of expenses and exculpation of present and former directors and officers of Tocagen set forth in Tocagen's amended and restated certificate of incorporation and amended and restated bylaws will not be amended, modified or repealed for a period of six years from the Effective Time in any manner that would adversely affect the rights of individuals who, at or prior to the Effective Time, were officers or directors of Tocagen. After the Closing, the amended and restated certificate of incorporation and amended and restated bylaws of the surviving corporation will contain provisions at least as favorable as the provisions relating to the indemnification, advancement of expenses and exculpation of present and former directors and officers presently set forth in Tocagen's amended and restated certificate of incorporation and amended and restated bylaws.

Tocagen has agreed to secure and prepay a six year "tail policy" on Tocagen's existing directors' and officers' liability insurance policy with an effective date as of the date of the Closing.

Listing

Pursuant to the Merger Agreement, Tocagen has agreed to use its commercially reasonable efforts, (a) to maintain its existing listing on Nasdaq until the Effective Time and to obtain approval of the listing of the combined corporation on Nasdaq, (b) to the extent required by the rules and regulations of Nasdaq, to prepare and submit to Nasdaq a notification form for the listing of the shares of Tocagen Common Stock to be issued in connection with the contemplated transactions, and to cause such shares to be approved for listing (subject to official notice of issuance); (c) to effect the Nasdaq reverse split and (d) to the extent required by Nasdaq, to file a Nasdaq Listing Application for the Tocagen Common Stock on Nasdaq and to cause such Nasdaq application to be conditionally approved prior to the Effective Time.

The parties will use commercially reasonable efforts to coordinate with respect to compliance with Nasdaq rules and regulations. Forte agrees to bear all Nasdaq fees associated with the Nasdaq Listing Application. Forte will cooperate with Tocagen as reasonably requested by Tocagen with respect to the Nasdaq Listing Application and promptly furnish to Tocagen all information concerning Forte and its stockholders that may be required or reasonably requested in connection with any action contemplated thereby.

Expenses

Pursuant to the Merger Agreement, all the Transaction Expenses will be paid by the party incurring such expenses, whether or not the Merger is consummated, except that Forte will pay (i) all fees and expenses paid to the SEC in connection with filing this proxy statement/prospectus/information statement, and any amendments and supplements hereto, with the SEC, and (ii) the Nasdaq fees associated with the Nasdaq Listing Application.

"Transaction Expenses" means, with respect to each party, all fees and expenses incurred by such party at or prior to the Effective Time in connection with the Contemplated Transactions and this Agreement, including (a) any fees and expenses of legal counsel and accountants, the maximum amount of fees and expenses payable to financial advisors, investment bankers, brokers, consultants, and other advisors of such party; (b) fees paid to the SEC in connection with filing this proxy statement/prospectus/information statement, and any amendments and supplements hereto, with the SEC; (c) any fees and expenses in connection with the printing, mailing and distribution of this proxy statement/prospectus/information statement and any amendments and supplements hereto; (d) the Nasdaq fees associated with the Nasdaq Listing Application; and (e) only with respect to Tocagen, any bonus, severance, change-in-control payments or similar payment obligations (including payments with "single-trigger" provisions triggered at and as of the consummation of the transactions contemplated hereby) that become due or payable to any director, officer, employee or consultant of Tocagen in connection with the consummation of the contemplated transactions.

Amendment of Merger Agreement

The Merger Agreement may be amended by the parties at any time by action taken by or on behalf of their respective boards of directors, except that after the Merger Agreement has been adopted and approved by a party's stockholders, no amendment which by law requires further approval by the stockholders of that party will be made without such further stockholder approval.

AGREEMENTS RELATED TO THE MERGER

Confidentiality Agreement

On December 6, 2019, Tocagen and Forte entered into a non-disclosure and confidentiality agreement, which contained customary confidentiality obligations, including a customary standstill provision, which is still in effect, that allows Forte to privately and confidentially approach the Tocagen Board or senior management to make acquisition proposals during the standstill period.

Exclusivity Agreement

On December 19, 2019, Tocagen and Forte entered into a Summary of Proposed Terms agreement that outlined the major aspects of a proposed merger. Such agreement included an exclusivity period that terminated at such time when either party delivered a termination notice, provided that no termination notice would be effective prior to January 19, 2020.

Support Agreements

Concurrently with the execution of the Merger Agreement, (a) officers, directors and certain stockholders of Forte (solely in their respective capacities as Forte stockholders) who collectively beneficially owned or controlled approximately 95% of the voting power of outstanding Forte Capital Stock as of February 19, 2020, entered into support agreements under which such stockholders agreed to, among other things, vote in favor of the adoption of the Merger Agreement and the approval of the Merger and the Contemplated Transactions; provided that in the event of a Forte Triggering Event, the obligation of such Forte Stockholders to vote their shares of Forte Capital Stock will be modified and such stockholders will only be required to collectively vote an aggregate number of shares of Forte Capital Stock equal to 35% of the total voting power of the outstanding Forte Capital Stock, and (b) officers, directors and certain stockholders of Tocagen (solely in their respective capacities as Tocagen stockholders), who collectively beneficially owned or controlled approximately 6% of the voting power of Tocagen's outstanding capital stock as of February 19, 2020, entered into support agreements under which such stockholders agreed to, among other things, vote in favor of the adoption of the Merger Agreement and the approval of the Merger and the other transactions contemplated by the Merger Agreement.

The support agreements will terminate at the earlier of the Effective Time or the termination of the Merger Agreement in accordance with its terms.

Lock-Up Agreements

Concurrently with the execution of the Merger Agreement, certain directors and officers of Tocagen and certain directors, officers and stockholders of Forte, entered into lock-up agreements, pursuant to which such individuals have agreed not to, except in limited circumstances, transfer or dispose of, any shares of Tocagen Common Stock or any securities convertible into, or exercisable or exchangeable for, shares of Tocagen Common Stock, including, as applicable, shares received in the Merger and issuable upon exercise of certain warrants and stock options, for a period of 180 days after the closing date of the Merger.

Pre-Closing Financing; Common Stock Purchase Agreement

Securities Purchase Agreement; Common Stock Purchase Agreement

Concurrent with the execution of the Merger Agreement, Forte entered into the Securities Purchase Agreement with certain investors pursuant to which, among other things, Forte agreed to issue to the investors (i) an aggregate of 13,055,999 shares of Forte Common Stock at a purchase price of $1.0769 per share, for gross proceeds of approximately $14.1 million and (ii) warrants to purchase an equal number of shares of Forte Common Stock purchased under the Securities Purchase Agreement, and on March 18, 2020 Forte entered into a Common Stock Purchase Agreement with certain investors pursuant to which, among other things, Forte agreed to issue to the investors approximately $5.2 million of shares of Forte Common Stock. The warrants to be issued pursuant to the Securities Purchase Agreement shall have an exercise price equal to that price per share of Tocagen Common Stock wherein Tocagen's market value, after the Merger, would be $120.0 million.

MATTERS BEING SUBMITTED TO A VOTE OF TOCAGEN'S STOCKHOLDERS
PROPOSAL NO. 1:
APPROVAL OF AN AMENDMENT TO THE AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OF TOCAGEN EFFECTING THE REVERSE SPLIT

General

At the Tocagen special meeting, Tocagen's common stockholders will be asked to approve an amendment to the amended and restated certificate of incorporation of Tocagen effecting the Reverse Split of Tocagen Common Stock at a ratio anywhere in the range between one new share for every eight shares and one new share for every fifteen shares outstanding. Prior to the effectiveness of the Merger, Tocagen and Forte will mutually agree upon the exact reverse split ratio within such range. Upon the effectiveness of the amendment to the amended and restated certificate of incorporation of Tocagen effecting the Reverse Split, or the split effective time, the issued shares of Tocagen Common Stock immediately prior to the split effective time will be reclassified into a smaller number of shares within the specified range, such that a stockholder of Tocagen will own one new share of Tocagen Common Stock for the specified number of shares of issued common stock held by that stockholder immediately prior to the split effective time.

If Proposal No. 1 is approved, the Reverse Split would become effective immediately prior to the effectiveness of the Merger. Tocagen may effect only one reverse stock split in connection with this Proposal No. 1. Tocagen and Forte's mutual decision will be based on a number of factors, including market conditions, existing and expected trading prices for Tocagen Common Stock and the listing requirements of Nasdaq.

The form of the amendment to the amended and restated certificate of incorporation of Tocagen to effect the Reverse Split, as more fully described below, will effect the Reverse Split but will not change the number of authorized shares of common stock or preferred stock, or the par value of Tocagen Common Stock or preferred stock.

Purpose

The Tocagen Board approved the proposal approving the amendment to the amended and restated certificate of incorporation of Tocagen effecting the Reverse Split for the following reasons:

- the Tocagen Board believes effecting the Reverse Split may be an effective means of avoiding a delisting of Tocagen Common Stock from Nasdaq in the future;
- the Tocagen Board believes that the Reverse Split will result in a number of authorized but unissued shares of Tocagen Common Stock sufficient for the issuance of shares of Tocagen Common Stock to Forte's stockholders pursuant to the Merger Agreement; and
- the Tocagen Board believes a higher stock price may help generate investor interest in Tocagen and help Tocagen attract and retain employees.

If the Reverse Split successfully increases the per share price of Tocagen Common Stock, the Tocagen Board believes this increase may increase trading volume in Tocagen Common Stock and facilitate future financings by Tocagen.

Nasdaq Requirements for Listing on Nasdaq

Tocagen Common Stock is listed on The Nasdaq Global Select Market under the symbol "TOCA." Tocagen intends to file an initial listing application with The Nasdaq Capital Market, as described below, to seek listing on Nasdaq upon the closing of the Merger.

According to Nasdaq rules, an issuer must, in a case such as this, apply for initial inclusion following a transaction whereby the issuer combines with a non-Nasdaq entity, resulting in a change of control of the issuer and potentially allowing the non-Nasdaq entity to obtain a Nasdaq listing. Accordingly, the listing standards of Nasdaq will require Tocagen to have, among other things, a $4.00 per share minimum bid price upon the closing of the Merger. Therefore, the Reverse Split may be necessary in order to consummate the Merger.

One of the effects of the Reverse Split will be to effectively increase the proportion of authorized shares which are unissued relative to those which are issued. This could result in Tocagen's management being able to issue more shares without further stockholder approval. For example, before the Reverse Split, Tocagen's authorized but unissued shares of common stock immediately prior to the closing of the Merger would be approximately 175,636,115 compared to shares issued of approximately 24,363,885. If Tocagen effects the Reverse Split using a 15:1 ratio, its authorized but unissued shares of common stock immediately prior to the closing of the Merger would be approximately 198,375,741 compared to shares issued of approximately 1,624,259. Tocagen currently has no plans to issue shares, other than in connection with the Merger and to satisfy obligations under the Tocagen employee stock options and restricted stock unit awards from time to time as the options are exercised and the restricted stock units vest. The Reverse Split will not affect the number of authorized shares of Tocagen Common Stock which will continue to be authorized pursuant to the certificate of incorporation of Tocagen.

Potential Increased Investor Interest

On April 23, 2020, Tocagen Common Stock closed at $1.16 per share. An investment in Tocagen Common Stock may not appeal to brokerage firms that are reluctant to recommend lower priced securities to their clients. Investors may also be dissuaded from purchasing lower priced stocks because the brokerage commissions, as a percentage of the total transaction, tend to be higher for such stocks. Moreover, the analysts at many brokerage firms do not monitor the trading activity or otherwise provide coverage of lower priced stocks. Also, the Tocagen Board believes that most investment funds are reluctant to invest in lower priced stocks.

There are risks associated with the Reverse Split, including that the Reverse Split may not result in an increase in the per share price of Tocagen Common Stock.

Tocagen cannot predict whether the Reverse Split will increase the market price for Tocagen Common Stock in the future. The history of similar stock split combinations for companies in like circumstances is varied. There is no assurance that:

- the market price per share of Tocagen Common Stock after the Reverse Split will rise in proportion to the reduction in the number of shares of Tocagen Common Stock outstanding before the Reverse Split;
- the Reverse Split will result in a per share price that will attract brokers and investors who do not trade in lower priced stocks;
- the Reverse Split will result in a per share price that will increase the ability of Tocagen to attract and retain employees;
- the market price per share will either exceed or remain in excess of the $1.00 minimum bid price as required by Nasdaq for continued listing, or that Tocagen will otherwise meet the requirements of Nasdaq for inclusion for trading on Nasdaq, including the $4.00 minimum bid price upon the closing of the Merger.

The market price of Tocagen Common Stock will also be based on performance of Tocagen and other factors, some of which are unrelated to the number of shares outstanding. If the Reverse Split is effected and the market price of Tocagen Common Stock declines, the percentage decline as an absolute number and as a percentage of the overall market capitalization of Tocagen may be greater than would occur in the absence of a

reverse stock split. Furthermore, the liquidity of Tocagen Common Stock could be adversely affected by the reduced number of shares that would be outstanding after the Reverse Split.

Principal Effects of the Reverse Split

The amendment to the amended and restated certificate of incorporation of Tocagen effecting the Reverse Split is set forth in *Annex E* to this proxy statement/prospectus/information statement.

The Reverse Split will be effected simultaneously for all outstanding shares of Tocagen Common Stock. The Reverse Split will affect all of Tocagen's stockholders uniformly and will not affect any stockholder's percentage ownership interest in Tocagen, except to the extent that the Reverse Split results in any of Tocagen's stockholders owning a fractional share. Shares of Tocagen Common Stock issued pursuant to the Reverse Split will remain fully paid and nonassessable. The Reverse Split does not affect the total proportionate ownership of Tocagen following the Merger. The Reverse Split will not affect Tocagen continuing to be subject to the periodic reporting requirements of the Exchange Act.

Procedure for Effecting the Reverse Split and Exchange of Stock Certificates

If Tocagen's common stockholders approve the amendment to the amended and restated certificate of incorporation of Tocagen effecting the Reverse Split, and if the Tocagen Board still believes that a reverse stock split is in the best interests of Tocagen and its stockholders, Tocagen will file the amendment to the amended and restated certificate of incorporation with the Secretary of State of the State of Delaware at such time as the Tocagen Board has determined to be the appropriate split effective time. The Tocagen Board may delay effecting the Reverse Split without resoliciting stockholder approval. Beginning at the split effective time, each certificate representing pre-split shares will be deemed for all corporate purposes to evidence ownership of post-split shares.

As soon as practicable after the split effective time, Tocagen's stockholders will be notified that the Reverse Split has been effected. Tocagen expects that the Tocagen transfer agent will act as exchange agent for purposes of implementing the exchange of stock certificates. Holders of pre-split shares will be asked to surrender to the exchange agent certificates representing pre-split shares held in certificated form in exchange for certificates representing post-split shares in accordance with the procedures to be set forth in a letter of transmittal to be sent by Tocagen. No new certificates will be issued to a stockholder until such stockholder has surrendered such stockholder's outstanding certificate(s) together with the properly completed and executed letter of transmittal to the exchange agent. Any pre-split shares submitted for transfer, whether pursuant to a sale or other disposition, or otherwise, will automatically be exchanged for post-split shares. **Stockholders should not destroy any stock certificate(s) and should not submit any certificate(s) unless and until requested to do so.**

Fractional Shares

No fractional shares will be issued in connection with the Reverse Split. Stockholders of record who otherwise would be entitled to receive fractional shares because they hold a number of pre-split shares not evenly divisible by the number of pre-split shares for which each post-split share is to be reclassified, will be entitled, upon surrender to the exchange agent of certificates representing such shares, to a cash payment in lieu thereof at a price equal to the fraction to which the stockholder would otherwise be entitled multiplied by the closing price of the common stock on Nasdaq on the date immediately preceding the split effective time. The ownership of a fractional interest will not give the holder thereof any voting, dividend, or other rights except to receive payment therefor as described herein.

By approving the amendment to the amended and restated certificate of incorporation of Tocagen effecting the Reverse Split, stockholders will be approving the combination of a whole number of shares of Tocagen Common Stock between 8 to 15 into one share of Tocagen Common Stock, with the actual ratio to be mutually agreed upon by Tocagen and Forte prior to the effectiveness of the Merger.

Stockholders should be aware that, under the escheat laws of the various jurisdictions where stockholders reside, where Tocagen is domiciled, and where the funds will be deposited, sums due for fractional interests that are not timely claimed after the effective date of the split may be required to be paid to the designated agent for each such jurisdiction, unless correspondence has been received by Tocagen or the exchange agent concerning ownership of such funds within the time permitted in such jurisdiction. Thereafter, stockholders otherwise entitled to receive such funds will have to seek to obtain them directly from the state to which they were paid.

Potential Anti-Takeover Effect

Although the increased proportion of unissued authorized shares to issued shares could, under certain circumstances, have an anti-takeover effect, for example, by permitting issuances that would dilute the stock ownership of a person seeking to effect a change in the composition of the Tocagen Board or contemplating a tender offer or other transaction for the combination of Tocagen with another company, the Reverse Split proposal is not being proposed in response to any effort of which Tocagen is aware to accumulate shares of Tocagen Common Stock or obtain control of Tocagen, other than in connection with the Merger, nor is it part of a plan by management to recommend a series of similar amendments to the Tocagen Board and stockholders. Other than the proposals being submitted to Tocagen's common stockholders for their consideration at the Tocagen special meeting, the Tocagen Board does not currently contemplate recommending the adoption of any other actions that could be construed to affect the ability of third parties to take over or change control of Tocagen. For more information, please see the sections titled "*Risk Factors—Risks related to ownership of Tocagen Common Stock*", and "*Description of Tocagen Capital Stock—Anti-Takeover Effects of Provisions of Tocagen's Amended and Restated Certificate of Incorporation, Tocagen's Amended and Restated Bylaws and Delaware Law*."

Material U.S. Federal Income Tax Consequences of the Reverse Split

The following is a discussion of material U.S. federal income tax consequences of the Reverse Split that are applicable to U.S. holders (as defined below) of Tocagen Common Stock, but does not purport to be a complete analysis of all potential tax effects. This summary is based upon current provisions of the Code, existing Treasury regulations, judicial decisions, and published rulings and administrative pronouncements of the IRS, all in effect as of the date hereof and all of which are subject to differing interpretations or change. Any such change or differing interpretation, which may be retroactive, could alter the tax consequences to Tocagen stockholders as described in this summary.

This discussion applies only to Tocagen stockholders who hold their Tocagen Common Stock as a "capital asset" within the meaning of Section 1221 of the Code, and does not address all U.S. federal income tax consequences relevant to a Tocagen stockholder. In addition, it does not address consequences relevant to Tocagen stockholders that are subject to particular U.S. or non-U.S. tax rules, including, without limitation to Tocagen stockholders that are:

- brokers, dealers or traders in securities; banks; insurance companies; other financial institutions; mutual funds;
- real estate investment trusts; regulated investment companies; tax-exempt organizations or governmental organizations;
- pass-through entities such as partnerships, S corporations, disregarded entities for federal income tax purposes and limited liability companies (and investors therein);
- persons who are not U.S. holders (as defined below);
- stockholders who are subject to the alternative minimum tax provisions of the Code;
- persons who hold their shares as part of a hedge, wash sale, synthetic security, conversion transaction, or other integrated transaction;

- persons that have a functional currency other than the U.S. dollar; traders in securities who elect to apply a mark-to-market method of accounting;
- persons who hold shares of Tocagen Common Stock that may constitute "qualified small business stock" under Section 1202 of the Code or as "Section 1244 stock" for purposes of Section 1244 of the Code;
- persons who elect to apply the provisions of Section 1400Z-2 to any gains realized in the Reverse Split;
- persons who acquired their shares of Tocagen Common Stock in a transaction subject to the gain rollover provisions of Section 1045 of the Code;
- persons subject to special tax accounting rules as a result of any item of gross income with respect to Tocagen Common Stock being taken into account in an "applicable financial statement" (as defined in the Code);
- persons deemed to sell Tocagen Common Stock under the constructive sale provisions of the Code;
- persons who acquired their shares of stock pursuant to the exercise of options or otherwise as compensation or through a tax-qualified retirement plan or through the exercise of a warrant or conversion rights under convertible instruments; and
- certain expatriates or former citizens or long-term residents of the United States.

Tocagen stockholders subject to particular U.S. or non-U.S. tax rules that are described in this paragraph are urged to consult their own tax advisors regarding the consequences to them of the Reverse Split.

If an entity that is treated as a partnership for U.S. federal income tax purposes holds Tocagen Common Stock, the U.S. federal income tax treatment of a partner in the partnership will depend upon the status of the partner, the activities of the partnership and certain determinations made at the partner level. If you are a partnership or a partner of a partnership holding Tocagen capital stock or any other person not addressed by this discussion, you should consult your tax advisors regarding the tax consequences of the Reverse Split.

In addition, the following discussion does not address: (a) the tax consequences of transactions effectuated before, after or at the same time as the Reverse Split, whether or not they are in connection with the Reverse Split; (b) any U.S. federal non-income tax consequences of the Reverse Split, including estate, gift or other tax consequences; (c) any state, local or non-U.S. tax consequences of the Reverse Split; or (d) the Medicare contribution tax on net investment income. No ruling from the IRS or opinion of counsel, has been or will be requested in connection with the Reverse Split. Tocagen stockholders should be aware that the IRS could adopt a position which could be sustained by a court contrary to that set forth in this discussion.

Definition of "U.S. Holder"

For purposes of this discussion, a "U.S. holder" is a beneficial owner of Tocagen Common Stock that is, for U.S. federal income tax purposes:

- an individual who is a citizen or resident of the United States;
- a corporation or any other entity taxable as a corporation created or organized in or under the laws of the United States, any state thereof, or the District of Columbia;
- a trust if either (i) a court within the United States is able to exercise primary supervision over the administration of such trust, and one or more United States persons (within the meaning of Section 7701(a)(30) of the Code) are authorized or have the authority to control all substantial decisions of such trust, or (ii) the trust was in existence on August 20, 1996 and has a valid election in effect under applicable Treasury Regulations to be treated as a United States person for U.S. federal income tax purposes; or
- an estate, the income of which is subject to U.S. federal income tax regardless of its source.

Treatment of U.S. Holders in the Reverse Split

We intend to treat the Reverse Split as a "recapitalization" for U.S. federal income tax purposes within the meaning of Section 368(a) of the Code. Assuming the Reverse Split qualifies as a recapitalization within the meaning of Section 368(a) of the Code, a U.S. holder will not recognize gain or loss upon the Reverse Split, except with respect to cash received in lieu of a fractional share of Tocagen Common Stock (which fractional share will be treated as received and then exchanged for such cash). A U.S. holder's aggregate tax basis in the shares of Tocagen Common Stock received pursuant to the Reverse Split will equal the aggregate tax basis of the shares of the Tocagen Common Stock surrendered (excluding any portion of such basis that is allocated to any fractional share of Tocagen Common Stock), and such U.S. holder's holding period in the shares of Tocagen Common Stock received will include the holding period in the shares of Tocagen Common Stock surrendered. Treasury Regulations provide detailed rules for allocating the tax basis and holding period of the shares of Tocagen Common Stock surrendered to the shares of Tocagen Common Stock received in a recapitalization pursuant to the Reverse Split. U.S. holders of shares of Tocagen Common Stock acquired on different dates and at different prices should consult their tax advisors regarding the allocation of the tax basis and holding period of such shares.

A U.S. holder that receives cash in lieu of a fractional share of Tocagen Common Stock pursuant to the Reverse Split will recognize capital gain or loss in an amount equal to the difference between the amount of cash received and the U.S. holder's tax basis in the shares of Tocagen Common Stock surrendered that is allocated to such fractional share of Tocagen Common Stock. Any such gain or loss will be long-term capital gain or loss if, as of the effective time of the Reverse Split, the U.S. holder's holding period for such fractional share exceeds one year. Long-term capital gains of certain non-corporate taxpayers, including individuals, are taxed at preferential rates. The deductibility of capital losses is subject to limitations.

Information Reporting and Backup Withholding

If the Reverse Split qualifies as a recapitalization within the meaning of Section 368(a) of the Code, each U.S. holder who receives shares of Tocagen Common Stock in the Reverse Split is required to retain permanent records pertaining to the Reverse Split, and make such records available to any authorized IRS officers and employees. Such records should specifically include information regarding the amount, basis, and fair market value of all transferred property, and relevant facts regarding any liabilities assumed or extinguished as part of such reorganization. U.S. holders who owned immediately before the Reverse Split at least five percent (by vote or value) of the total outstanding stock of Tocagen are required to attach a statement to their tax returns for the year in which the Reverse Split is consummated that contains the information listed in Treasury Regulation Section 1.368-3(b). Such statement must include the U.S. holder's tax basis in such holder's Tocagen Common Stock surrendered in the Reverse Split, the fair market value of such stock, the date of the Reverse Split and the name and employer identification number of Tocagen. U.S. holders are urged to consult with their tax advisors to comply with these rules.

A U.S. Holder of Tocagen Common Stock may be subject to information reporting and backup withholding for U.S. federal income tax purposes on cash paid in lieu of fractional shares in connection with the Reverse Split. Backup withholding will not apply, however, to a U.S. holder who (i) furnishes a correct taxpayer identification number and certifies the holder is not subject to backup withholding on IRS Form W-9 or a substantially similar form, or (ii) certifies the holder is otherwise exempt from backup withholding. If a U.S. holder does not provide a correct taxpayer identification number on IRS Form W-9 or other proper certification, the stockholder may be subject to penalties imposed by the IRS. Any amounts withheld under the backup withholding rules may be refunded or allowed as a credit against the federal income tax liability of a U.S. holder of Tocagen capital stock, if any, provided the required information is timely furnished to the IRS. Tocagen stockholders should consult their tax advisors regarding their qualification for an exemption from backup withholding, the procedures for obtaining such an exemption, and in the event backup withholding is applied, to determine if any tax credit, tax refund or other tax benefit may be obtained.

The foregoing summary is of a general nature only and is not intended to be, and should not be construed to be, legal, business or tax advice to any particular Tocagen stockholder. This summary does not take into account your particular circumstances and does not address consequences that may be particular to you. Therefore, you should consult your tax advisor regarding the particular consequences of the Reverse Split to you.

Vote Required; Recommendation of the Tocagen Board

The affirmative vote of holders of a majority of the shares of Tocagen Common Stock outstanding on the record date for the Tocagen special meeting is required to approve Proposal No. 1. Abstentions will have the same effect as votes "AGAINST" this Proposal. It is anticipated that Proposal No. 1 will be a discretionary proposal considered routine under the rules of the NYSE, which generally controls the ability of brokers to vote or not vote shares held in street name on certain matters, and thus will not result in broker non-votes.

THE TOCAGEN BOARD RECOMMENDS THAT TOCAGEN'S COMMON STOCKHOLDERS VOTE "FOR" PROPOSAL NO. 1 TO APPROVE THE AMENDMENT TO THE AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OF TOCAGEN EFFECTING THE REVERSE SPLIT. THE APPROVAL OF EACH OF PROPOSAL NOS. 1 AND 2 IS REQUIRED TO CONSUMMATE THE MERGER.

PROPOSAL NO. 2:

APPROVAL OF (I) THE ISSUANCE OF SHARES OF TOCAGEN COMMON STOCK PURSUANT TO THE MERGER, AND (II) THE CHANGE OF CONTROL RESULTING FROM THE MERGER

At the Tocagen special meeting, Tocagen's common stockholders will be asked to approve (i) the issuance of Tocagen Common Stock to Forte's stockholders pursuant to the Merger Agreement, which shares of Tocagen Common Stock to be issued pursuant to the Merger will represent more than 20% of the shares of Tocagen Common Stock outstanding immediately prior to the Merger, and (ii) the change of control resulting from the Merger, pursuant to Nasdaq Listing Rules 5635(a) and 5635(b), respectively. Immediately following the Merger and assuming a $19.3 million investment in the Pre-Closing Financing and that Tocagen holds $3.0 million of net cash at the closing of the Merger, current holders of Forte Capital Stock and options to purchase shares of Forte Common Stock immediately prior to the Effective Time, are expected to own, or hold rights to acquire, in the aggregate approximately 82.4% of the Tocagen capital stock on a fully diluted treasury stock method basis, and Tocagen's current equity holders are expected to own, or hold rights to acquire, in the aggregate approximately 17.6% of the Tocagen capital stock on a fully diluted treasury stock method basis. Tocagen will assume outstanding warrants to purchase shares of Forte Capital Stock and unexercised options to purchase shares of Forte Capital Stock, and such securities will be converted into warrants or options, as applicable, to purchase shares of Tocagen Common Stock.

The terms of, reasons for and other aspects of the Merger Agreement, the Merger, the issuance of Tocagen Common Stock pursuant to the Merger Agreement and the change of control resulting from the Merger are described in detail in the other sections in this proxy statement/prospectus/information statement.

Required Vote

The affirmative vote of a majority of the votes cast in person or by proxy at the Tocagen special meeting is required to approve Proposal No. 2. Abstentions and broker non-votes will have no effect on the outcome of this proposal. It is anticipated that Proposal No. 2 will be a non-discretionary proposal considered non-routine under the rules of the NYSE, which generally controls the ability of brokers to vote or not vote shares held in street name on certain matters, and thus may result in broker non-votes.

THE TOCAGEN BOARD RECOMMENDS THAT TOCAGEN'S COMMON STOCKHOLDERS VOTE "FOR" PROPOSAL NO. 2 TO APPROVE (I) THE ISSUANCE OF SHARES OF TOCAGEN COMMON STOCK PURSUANT TO THE MERGER, WHICH SHARES COLLECTIVELY WILL REPRESENT MORE THAN 20% OF THE SHARES OF TOCAGEN COMMON STOCK OUTSTANDING IMMEDIATELY PRIOR TO THE MERGER, AND (II) THE CHANGE OF CONTROL RESULTING FROM THE MERGER, PURSUANT TO NASDAQ LISTING RULES 5635(A) AND 5635(B), RESPECTIVELY. THE APPROVAL OF EACH OF PROPOSAL NOS. 1 AND 2 IS REQUIRED TO CONSUMMATE THE MERGER.

PROPOSAL NO. 3:

APPROVAL OF POSSIBLE ADJOURNMENT OF THE TOCAGEN SPECIAL MEETING

If Tocagen fails to receive a sufficient number of votes to approve Proposal Nos. 1 or 2, Tocagen may propose to postpone or adjourn the Tocagen special meeting, for a period of not more than 20 days, for the purpose of soliciting additional proxies to approve Proposal Nos. 1 or 2. Tocagen currently does not intend to propose postponement or adjournment at the Tocagen special meeting if there are sufficient votes to approve Proposal Nos. 1 or 2.

The affirmative vote of a majority of the votes cast in person or by proxy at the Tocagen special meeting is required to approve Proposal No. 3. Abstentions and broker non-votes will have no effect on the outcome of this Proposal. It is anticipated that Proposal No. 3 will be a discretionary proposal considered routine under the rules of the NYSE, which generally controls the ability of brokers to vote or not vote shares held in street name on certain matters, and thus will not result in broker non-votes.

THE TOCAGEN BOARD RECOMMENDS THAT TOCAGEN'S COMMON STOCKHOLDERS VOTE "FOR" PROPOSAL NO. 3 TO POSTPONE OR ADJOURN THE TOCAGEN SPECIAL MEETING, IF NECESSARY, TO SOLICIT ADDITIONAL PROXIES IF THERE ARE NOT SUFFICIENT VOTES IN FAVOR OF PROPOSAL NOS. 1 OR 2. THE APPROVAL OF EACH OF PROPOSAL NOS. 1 AND 2 IS REQUIRED TO CONSUMMATE THE MERGER.

DESCRIPTION OF TOCAGEN'S BUSINESS

Overview

Tocagen is a clinical-stage, cancer-selective gene therapy company focused on developing broadly-applicable product candidates designed to activate a patient's immune system against their own cancer. Its cancer-selective gene therapy platform is built on RRVs, which are designed to selectively deliver therapeutic genes into the DNA of cancer cells. Tocagen's gene therapy approach is designed to fight cancer through immunotherapeutic mechanisms of action without the autoimmune toxicities commonly experienced with other immunotherapies. Tocagen's founding vision is "No One Should Die Of Cancer" because it believes the immune system can be safely activated to fight the patient's cancer.

Tocagen had been developing its lead product candidate, Toca 511 (vocimagene amiretrorepvec) & Toca FC (extended-release flucytosine), for the treatment of recurrent HGG, a brain cancer with limited treatment options, low survival rates and, therefore, a significant unmet medical need. Tocagen conducted a randomized, controlled Phase 3 clinical trial (Toca 5) of Toca 511 & Toca FC in patients with recurrent HGG, which was designed to serve as a registrational trial. At the final analysis, the trial missed the primary endpoint of overall survival compared to the standard of care treatment (11.1 months median compared to 12.2 months, HR=1.06, p=0.6154). In addition, all secondary endpoints showed no meaningful difference between the arms of the trial. Tocagen has discontinued further development of Toca 511 & Toca FC.

To conserve its cash resources, Tocagen has substantially reduced its workforce and has wound down and suspended its research and development activities. Tocagen is continuing to provide study drug for patients who remain on therapy via investigator sponsored trials (principal investigator assumes responsibility) through single patient INDs and is continuing its day-to-day business operations including the limited remaining activities required to wrap up the Toca 5 trial.

Following the announcement of the Toca 5 trial results, the Tocagen Board commenced a process of evaluating strategic alternatives to maximize stockholder value. To assist with this process, the Tocagen Board engaged Ladenburg to help explore Tocagen's available strategic alternatives, including possible mergers and business combinations, a sale of part or all of Tocagen's assets, and collaboration and licensing arrangements. On February 19, 2020, Tocagen and Forte announced the signing of the Merger Agreement. Upon the terms and subject to the satisfaction of the conditions described in the Merger Agreement, including approval of the transaction by Tocagen's stockholders, a wholly owned subsidiary of Tocagen will be merged with and into Forte, with Forte surviving the Merger as a wholly-owned subsidiary of Tocagen.

Although Tocagen has entered into the Merger Agreement and intends to consummate the Merger, there is no assurance that it will be able to successfully consummate the proposed Merger on a timely basis, or at all. If, for any reason, the Merger is not completed, Tocagen will reconsider its strategic alternatives and could pursue one or more of the following courses of action:

- ***Pursue potential collaborative, partnering or other strategic arrangements for Tocagen's assets, including a sale or other divestiture of its assets.*** Tocagen has discontinued further development of its programs, including Toca 511 & Toca FC, and does not currently have any plans to resume development of any of its development programs. Tocagen continues its efforts to seek potential collaborative, partnering or other strategic arrangements for its programs, including a sale or other divestiture of its assets which could allow Tocagen's technology to continue being developed. Tocagen may be unable to divest its assets in a timely manner, or at all, and therefore may not receive any return on Tocagen's investment in its program assets, including Toca 511 & Toca FC. If the combined company does not have sufficient funds, the combined company will not be able to advance the development of its product candidates or otherwise bring its product candidates to market and generate product revenues.

- ***Pursue another strategic transaction like the proposed Merger.*** The Tocagen Board may elect to pursue an alternative strategy, one of which may be a strategic transaction similar to the Merger.
- ***Dissolve and liquidate Tocagen's assets.*** If, for any reason, the Merger is not consummated and Tocagen is unable to identify and complete an alternative strategic transaction like the Merger or potential collaborative, partnering or other strategic arrangements for its assets, or to continue to operate its business due to its inability to raise additional funding, it may be required to dissolve and liquidate its assets. In such case, Tocagen would be required to pay all of its debts and contractual obligations, and to set aside certain reserves for potential future claims, and there can be no assurances as to the amount or timing of available cash left to distribute to its stockholders after paying Tocagen's debts and other obligations and setting aside funds for reserves.

Tocagen's Proprietary Technology Platform: Harnessing Cancer Immunotherapy and Gene Therapy Together to Fight Cancer

Tocagen believes its investigational gene therapy platform and therapeutic genes represent innovative and differentiated approaches in cancer-selective immunotherapy which have the potential to drive a safe, powerful and durable immune response against cancer, without triggering autoimmunity. Tocagen chose to utilize RRVs as the basis of its gene therapy platform for cancer-selective immunotherapy because they exhibit several characteristics that it believes allow it to optimize the safety, delivery and persistence of its therapeutic genes in cancer cells. These characteristics include that they:

- replicate readily and persist in the immune-defective environment of cancer;
- are controlled in healthy tissue by normal immune mechanisms;
- only infect dividing cells such as cancer cells;
- bud from, rather than lyse, infected cancer cells, reducing anti-RRV immune activation;
- infect most cancer types; and
- can cross the blood tumor barrier.

Manufacturing

Toca 511 & Toca FC, consists of a biological component and a drug component, which are separately manufactured and are both covered by Tocagen's proprietary intellectual property. The process for Toca 511 manufacturing and testing has been developed internally and Tocagen believes that the process itself and the expertise to design and implement this process as well as the testing are significant assets. The process and the vector composition are covered by patents, patent applications and trade secrets. The process for Toca FC (extended release 5-FC) was also designed internally. Tocagen has relied on third-party CMOs for both of these manufacturing processes to produce its final product for clinical use, as it does not own or operate manufacturing facilities.

Tocagen currently has no plans to build its own manufacturing capacity to manufacture Toca 511 or Toca FC.

License and Collaboration Agreements

The license and collaboration agreements described below are not impacted by Tocagen's suspension of research and development activities and will be assigned as part of the sale of the Company Assets.

License Agreement with ApolloBio

In April 2018, Tocagen entered into a license agreement with ApolloBio (the "ApolloBio License Agreement"), which became effective in July 2018, pursuant to which Tocagen granted ApolloBio an exclusive license to develop and commercialize Toca 511 & Toca FC within the greater China region, including mainland China, Hong Kong, Macao and Taiwan (the "Licensed Territory").

Under the ApolloBio License Agreement, in addition to an aggregate upfront payment of $16.0 million, Tocagen is eligible to receive up to an aggregate $111.0 million, less withholding and other taxes, upon the achievement of specified development and commercial milestones. Tocagen is also eligible for tiered royalty payments in the 10% to 15% range based on annual net sales of licensed products in the Licensed Territory, subject to reduction under specified circumstances. ApolloBio will be responsible for all development and commercialization costs in the Licensed Territory. Future payments by ApolloBio are subject to the People's Republic of China ("PRC") currency exchange approval and may be subject to other approvals by PRC authorities.

Under the ApolloBio License Agreement, Tocagen has received net proceeds of $15.2 million which was comprised of a $16.0 million up-front payment and a $2.0 million milestone payment less $1.7 million in foreign income taxes and $1.1 million in certain foreign non-income taxes.

Unless earlier terminated, the ApolloBio License Agreement will expire upon the expiration of the last-to-expire royalty term for any and all licensed products, which royalty term is, with respect to a licensed product in a particular region (*i.e.*, mainland China, Hong Kong, Macao and Taiwan) of the Licensed Territory (each a "Region") the latest of (i) 10 years after the first commercial sale of such licensed product in such Region, (ii) the expiration of all regulatory exclusivity as to such licensed product in such Region and (iii) the date of expiration of the last valid patent claim covering such licensed product in such Region. Either party may terminate the ApolloBio License Agreement upon a material breach by the other party that remains uncured following 60 days (or, with respect to any payment breach, 10 days) after the date of written notice of such breach. ApolloBio may terminate the ApolloBio License Agreement at any time by providing 90 days' prior written notice to Tocagen. In addition, Tocagen may terminate the ApolloBio License Agreement upon written notice to ApolloBio under specified circumstances if ApolloBio challenges the licensed patent rights.

Laboratory Services and License Agreement with Siemens

In November 2011, Tocagen entered into a laboratory services and license agreement with Siemens Healthcare Diagnostics Inc. ("Siemens"), which it amended in June 2015, pursuant to which Tocagen agreed to engage Siemens (i) to develop and perform certain *in vitro* diagnostic assays in connection with the cancer therapy trials of Toca 511 & Toca FC, (ii) concurrently and/or thereafter, to further develop, obtain FDA approval for, and perform one or more of such *in vitro* diagnostic assays as drug monitoring diagnostics for Toca 511 & Toca FC as Toca 511 & Toca FC receives marketing approval from the FDA, and (iii) following FDA approval of such *in vitro* diagnostic assay as a monitoring diagnostic, to perform such *in vitro* diagnostic monitoring assays as necessary in connection with post-marketing clinical trials of Toca 511 & Toca FC and, if appropriate, as commercial diagnostic tests. Tocagen granted Siemens the licensed intellectual property covered by the agreement on an exclusive and non-exclusive basis, depending on Siemens' use of such intellectual property.

Under the terms of the agreement, Siemens paid Tocagen an initial upfront payment of $0.5 million. Additionally, beginning with the first commercial sale of a product that has received approval for clinical use under the agreement, Siemens will pay Tocagen a royalty in the 10-20 percent range of net assay revenue with respect to approved designated assay products and net sales revenue with respect to approved *in vitro* diagnostic products, until the fifth anniversary of such commercial sale, subject to certain reductions. Beginning with the first commercial sale of Toca 511 or Toca FC, Tocagen will pay a royalty to Siemens in the low single-digit percentage range on net product sales of Toca 511 & Toca FC for sales up to the mid-nine-digit dollar range per year, until the fifth anniversary of such commercial sale.

The term of this agreement will continue until the expiration of all payment obligations. The agreement provides that it may be terminated by either party upon written notice to the other party in the event of the other party's material breach of the agreement if such breach remains uncured for 45 days, or in the event the other party files a voluntary petition in bankruptcy, is adjudicated as bankrupt or insolvent after all appeals are

exhausted, makes a general assignment for the benefit of creditors or fails to discharge or have dismissed within 60 days an involuntary petition in bankruptcy filed against it. If market approval is rejected by the FDA, Siemens must provide Tocagen with prompt written notice. Should the parties be unable to reach mutual agreement regarding regulatory strategy within 20 business days of such notice, then either party may terminate the agreement upon written notice to the other party. Siemens may terminate the agreement for any reason upon 90 days prior written notice to Tocagen, provided that, notwithstanding such termination, Siemens must continue to provide the laboratory services for any of Tocagen's trials the protocol for which has been submitted to the FDA until the conclusion of such pre-approval trial. Siemens may also terminate the agreement if, after using commercially reasonable efforts, certain assay specifications are not achieved. If Siemens terminates the agreement for breach of contract by Tocagen, the licenses granted to Siemens will survive such termination and will become non-exclusive, perpetual and irrevocable, provided that Siemens will have the right to terminate any such license at any time upon written notice to Tocagen. If the agreement expires, or if the agreement is terminated by Tocagen for breach of contract by Siemens or for failure to reach an agreement on regulatory strategy, the restriction in the license granted to activities outside of the territory will terminate, and Tocagen will have the right to pursue development and commercialization of companion diagnostics for products with one or more other partners in the territory, and to grant to such other partners sublicenses of Tocagen's rights under the agreement. If the agreement is terminated by either party for failure to reach an agreement on regulatory strategy, or by Siemens by 90 days written notice, for a minimum of 45 days after the later of (i) the termination date or (ii) completion of any required post-termination laboratory services and delivery to Tocagen of all results thereof, Siemens must retain any stocks of qualified reagents for the assays that remain as of Siemens' completion of such laboratory services, and, upon Tocagen's request made at any time during such 45-day period, Siemens must deliver such remaining stocks to Tocagen, provided that Tocagen shall have executed documentation reasonably satisfactory to Siemens acknowledging that the use of such reagents is restricted to investigational use pursuant to Tocagen's IND, and any other use permitted by, and in compliance with, applicable laws, regulatory guidelines and regulatory approvals.

License Agreement with USC

In October 2007, Tocagen entered into a license agreement with USC, pursuant to which Tocagen received a worldwide, exclusive license to, among other things, manufacture and market products utilizing inventions related to Tocagen's RRV platform and other key technology.

Under the terms of the agreement, Tocagen paid an initial license fee to USC in the low six-digit dollar range and issued to USC shares of Tocagen Common Stock in an amount equal to the low single-digit percent range of all the number of shares of common stock issued at the time shares were issued to Tocagen's six founders prior to the date of the agreement. Pursuant to the agreement, Tocagen owes USC a royalty in the low single-digit percent range of Tocagen's and Tocagen's sub-licensee's net sales of products covered by the agreement. In addition, Tocagen owes USC an additional royalty in the low single-digit percent range of revenue from Tocagen's sub-licensees. Once Tocagen and Tocagen's sub-licensees net sales reach an amount in the mid-seven digit dollar range, the minimum annual royalty payment due to USC will be in the low six-digit dollar range. Tocagen's royalty obligations continue on a licensed product-by-licensed product and country-by-country basis until the expiration of the last valid claim in the licensed patent covering a licensed product in such country.

The term of this agreement will continue until all of Tocagen's royalty payment obligations have expired unless terminated earlier. The agreement provides that it may be terminated by either party upon written notice to the other party in the event of the other party's material breach of the agreement if such breach remains uncured for 45 days. Tocagen may terminate the agreement without cause upon 45 days' advance written notice to USC. USC may also terminate the agreement upon notice to Tocagen upon (i) the declaration by a court of competent jurisdiction that Tocagen is bankrupt and Tocagen's assets are to be liquidated pursuant to the U.S. Bankruptcy Code; (ii) upon the filing or institution by Tocagen of bankruptcy, liquidation or receivership proceedings under Chapter 7 of the U.S. Bankruptcy Code; (iii) upon an assignment of a substantial portion of Tocagen's assets for the benefit of creditors; or (iv) in the event a receiver or custodian is appointed in bankruptcy for all or

substantially all of Tocagen's business; provided, however, that in the case of any involuntary proceeding, such right to terminate shall only become effective if the proceeding is not dismissed within 120 days after the filing thereof. Upon termination of the agreement, all rights granted to or provided by each party to the other shall automatically and irrevocably revert to the granting party.

Grants

In August 2017, Tocagen was awarded a $2.0 million grant by the FDA Office of Orphan Products Development to support its Phase 3 clinical trial ("OOPD Grant"). Under the grant agreement, Tocagen will be reimbursed for qualifying expenses over a four-year period subject to the availability of funds and satisfactory progress of the trial. At December 31, 2019, Tocagen had received $1.5 million relating to the OOPD Grant. Tocagen does not anticipate receiving the remaining $0.5 million reimbursement for qualifying expenses.

Tocagen has also received grants from the following entities: National Institutes of Health, Voices Against Brain Cancer, Musella Foundation, Accelerate Brain Cancer Cure, Inc., National Brain Tumor Society, American Brain Tumor Association, Adenoid Cystic Carcinoma Research Foundation, and Internal Revenue Service—Qualifying Therapeutic Discovery Project Program.

Sales and Marketing

Tocagen currently is not conducting any sales, marketing or distribution activities.

Intellectual Property

Intellectual property is of vital importance in Tocagen's field and in biotechnology generally. Tocagen seeks to protect and enhance proprietary technology, inventions, and improvements that are commercially important to the development of its business by seeking, maintaining, and defending patent rights, whether developed internally or licensed from third parties.

Tocagen will also seek to rely on regulatory protection afforded through Orphan-Drug Designations, data exclusivity, market exclusivity and patent term extensions where available.

Tocagen has obtained Orphan-Drug Designation for Toca 511 & Toca FC for the treatment of malignant glioma in addition to GBM, which makes the product eligible for a period of orphan drug exclusivity, if approved in this indication, under certain conditions. Tocagen believes that approval under a BLA,will be eligible for 12 years of market exclusivity in the United States, 10 years of market exclusivity in Europe and significant durations in other markets, which would be complementary to any relevant patent exclusivity.

Through licensing and developing Tocagen's own portfolio, and as of December 31, 2019, Tocagen has rights to 14 issued patents in the United States, eleven of which are assigned to Tocagen and three of which are exclusively licensed to it, and 106 issued and granted patents in foreign countries, 105 of which are assigned to Tocagen and one of which is exclusively licensed to it, eight patent applications in the United States, all of which are assigned to Tocagen and 52 patent applications in foreign countries, all of which are assigned to Tocagen. Tocagen believes that the issued patents will provide coverage on its technology platform and product candidates until approximately 2030. Tocagen files intellectual property it believes to be key to its business at a minimum in jurisdictions including the United States, Europe and Japan. Tocagen's original core technology was licensed from USC and The Regents of the University of California. Families within the portfolio are directed to Tocagen's RRV technology platform, the modified CD gene that Tocagen uses in Toca 511, various other therapeutic modalities and genes for use with RRV, manufacturing methods for RRV, the extended release Toca FC formulation, various combination therapies with Toca 511 & Toca FC and other agents, intravenous administration of RRV and diagnostic assays for detection of RRV. Currently there are 119 pending trademarks, five of which are pending in the United States and 114 of which are pending in various jurisdictions outside the United States.

Tocagen possesses significant knowledge relating to the construction, manufacture, development and protection of gene therapy products. Tocagen aims to protect certain intellectual property through a trade secret strategy.

Competition

The biotechnology and biopharmaceutical industries are characterized by rapidly advancing technologies, intense competition and a strong emphasis on proprietary products. Tocagen faces competition from many different sources, including commercial pharmaceutical and biotechnology enterprises, academic institutions, government agencies and private and public research institutions.

Many of Tocagen's competitors have significantly greater financial resources and expertise in research and development, manufacturing, preclinical testing, conducting clinical trials, obtaining regulatory approvals and marketing approved products than it does. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. Tocagen's commercial opportunities will be reduced or eliminated if its competitors develop and commercialize similar products that are safer, more effective, have fewer side effects or are less expensive than any products that Tocagen and/or its collaborators may develop.

Employees

As of December 31, 2019, Tocagen had 29 total employees, all of which were full-time employees. Of these full-time employees, 20 employees are engaged in research and development activities and 9 employees are engaged in finance and general management activities including accounting, contracts, human resources, information technology, investor relations, marketing and business development.

Corporate Information

Tocagen was incorporated in Delaware in August 2007. Its principal executive offices are located at 4445 Eastgate Mall, Suite 200, San Diego, California 92121. Tocagen's telephone number is (858) 412-8400. Tocagen's website address is www.tocagen.com. Information contained on, or that can be accessed through, Tocagen's website or social medial sites does not constitute part of this proxy statement/prospectus/information statement, is not incorporated by reference in this proxy statement/prospectus/information statement or any other report or document Tocagen files with the SEC, and any references to Tocagen's website and social media sites are intended to be inactive textual references only.

Tocagen, the Tocagen logo and other trademarks or service marks of Tocagen are the property of Tocagen. Other service marks, trademarks, and tradenames referred to in this proxy statement/prospectus/information statement are the property of their respective owners. Except as set forth above and solely for convenience, the trademarks and tradenames in this proxy statement/prospectus/information statement are referred to without the ® and ™ symbols, but such references should not be construed as any indicator that their respective owners will not assert, to the fullest extent under applicable law, their rights thereto.

Tocagen is an "emerging growth company" as defined in the JOBS Act. Tocagen will remain an emerging growth company until the earliest of (i) the last day of its first fiscal year in which it has total annual gross revenues of $1.07 billion or more, (ii) the date on which it is deemed to be a "large accelerated filer" under the rules of the SEC with at least $700 million of outstanding equity securities held by non-affiliates, (iii) the date on which it issued more than $1.0 billion in non-convertible debt during the previous three years, or (iv) December 31, 2022. References herein to "emerging growth company" are intended to have the meaning associated with it in the JOBS Act.

Properties

As of December 31, 2019, Tocagen leased a total of approximately 18,000 square feet of laboratory and office space located at 4242 Campus Point Court, Suite 600, San Diego, California, 92121.

Tocagen does not own any property, nor does it have any contracts or options to acquire any property in the future. Presently, Tocagen is operating out of a virtual office. This space is adequate for Tocagen's present and its planned future operations. Tocagen has no current plans to lease or occupy other or additional office space.

Legal Proceedings

Tocagen is unaware of any lawsuits presently pending against Tocagen which, individually or in the aggregate, are deemed to be material to its financial condition or results of operations.

Where to Find More Information

Tocagen makes its public filings with the SEC, including its Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and all exhibits and amendments to these reports, available free of charge at Tocagen's website, www.tocagen.com, as soon as reasonably practicable after Tocagen files or furnishes such materials with the SEC. In addition, the SEC maintains an internet site at www.sec.gov that contains reports, proxy statements and other information regarding registrants that file electronically, including Tocagen.

Tocagen also makes available free of charge through its website http://www.tocagen.com certain of its corporate governance policies, including the charters for the audit, compensation and nominating and corporate governance committees of the Board and Tocagen's code of business conduct and ethics. Tocagen will also provide to any person without charge, upon request, a copy of any of the foregoing materials. Any such request must be made in writing to Tocagen at: Tocagen Inc., 4445 Eastgate Mall, Suite 200, San Diego, California 92121.

DESCRIPTION OF FORTE'S BUSINESS

Overview

Forte is a clinical-stage biopharmaceutical company focused on dermatology. Forte's lead product candidate, FB-401, is a live biotherapeutic for the treatment of inflammatory skin disease developed in collaboration with the NIH and NIAID. The skin is a complex barrier organ characterized by complex interactions between microbial communities and host tissue via signaling provided by the innate and the adaptive immune systems. Exposure to various endogenous and exogenous factors impact the system balance potentially leading to inflammatory skin conditions comprising infections, allergies or autoimmune diseases. Researchers in microbiology and dermatology have identified and characterized the microorganisms present on the skin to evaluate the bacterial contribution to skin health and dermatological conditions.

Forte is developing a new approach to treating inflammatory skin disease using a topical live biotherapeutic, FB-401. FB-401, consists of three therapeutic strains of a commensal gram-negative bacteria, *Roseomonas mucosa* that were specifically selected for their impact on key parameters of inflammatory skin disease. Forte has extensive preclinical and mechanism of action data demonstrating that FB-401 improves atopic dermatitis disease parameters by driving tissue repair and anti-inflammation as well as suppressing potentially harmful bacteria like *S. aureus*. Specifically, Forte believes that FB-401:

- drives immune pathways that are defective;
- suppresses *Staphylococcus aureus* growth; and
- improves skin barrier function.

To date, Forte has completed a Phase 1/2a study, including both adults and pediatrics, demonstrating a significant reduction in atopic dermatitis disease and pruritus, as well as control of *S. aureus* while tapering/eliminating steroid use. Forte is currently planning to initiate a Phase 2 clinical trial in mid-2020.

Market for Treating AD

AD is a relapsing and remitting inflammatory skin disorder that affects all age groups. It is chronic and incurable, and is characterized by skin-barrier disruption and immune dysregulation. Clinically, AD is characterized by xerosis, erythematous crusted eruptions, lichenification, an impaired skin barrier and intense pruritus AD flares are frequently triggered by exposure to environmental factors, irritants, and allergens.

Although estimates of AD prevalence vary widely across different studies due to differences in data collection methodology, inconsistent age group assessment, and study periods, AD is one of the most common dermatologic diseases, involving 15%-30% of children and 2%-10% of adults. A 2010 study in the United States evaluating AD severity in children found that 67% had mild disease, 26% had moderate disease and 7% had severe disease. Approximately 85% of all cases of AD begin before age five.

Patients with AD have a high disease burden and their quality of life is significantly affected. AD has been shown to have a greater negative effect on patient mental health than diabetes and hypertension. Patients with moderate-to-severe AD have a higher prevalence of social dysfunction and sleep impairment, which are directly related to the severity of the disease. Depression, anxiety, and social dysfunction not only affect patients with AD, but also affect their caregivers. Compared with psoriasis, another common and debilitating skin disease, patients with AD have lower physical, vitality, social functioning, role-emotional, and mental health scores.

The therapeutic approach to AD primarily consists of trigger avoidance, skin hydration with bathing, and use of emollients and anti-inflammatory therapies consisting predominantly of topical corticosteroids ("TCS"). In many patients, treatment with TCS provides some measure of symptomatic relief but does not adequately control

the disease. Potential local reactions observed with exposure to TCS include atrophy, striae, telangiectasia, irritation, folliculitis, acneiform eruptions, hypopigmentation, allergic contact dermatitis, and secondary infection. Potential systemic adverse reactions observed with exposure to TCS include hypothalamic-pituitary-adrenal axis suppression, Cushing's syndrome, hyperglycemia, and unmasking of latent diabetes mellitus.

In addition to TCS, mild to moderate disease is treated with topical calcineurin inhibitors or with crisaborole (EUCRISA®), a topical PDE-4 inhibitor. Topical calcineurin inhibitors are indicated for the short-term and non-continuous chronic treatment of AD in the population age two years and older and not indicated for immunocompromised patients or patients less than two years of age. Topical calcineurin inhibitors carry a boxed warning regarding rare cases of malignancy (e.g., skin and lymphoma) and are labeled as second-line therapy. Crisaborole is associated with local irritation (pain and burning) and occasional hypersensitivity reactions. Therefore, there is a role for additional agents that provide meaningful efficacy with an acceptable safety profile, especially for children.

There is currently no cure for AD. In the United States, approximately 17 million people have been diagnosed with AD, of which more than half are pediatric patients (<17 years old). Treatment options for pediatrics in particular are very limited.

Strategy

Forte's goal is to become a leading dermatology focused biopharmaceutical company. Forte intends to focus its initial efforts on completing the FB-401 clinical development to show its safety and efficacy in treating inflammatory skin diseases including AD. After obtaining FDA approval for FB-401, Forte's focus will be on bringing FB-401 market in order to address the significant unmet need for safe and effective AD therapy for pediatric as well as adult patients.

Background

Although bacteria are often associated with infection and disease, much of the bacteria that colonize the human body are essential for life. Until recently, few scientific studies focused on the benefits of commensal bacteria.

The NIH was the first to culture Gram-negative bacteria from the skin and has been a thought leader in understanding the bacterial composition of the skin. That work at NIH demonstrated

- significant differences in the Gram-negative skin biome between AD patients and healthy volunteers, using genetic-based microbiome identification;
- identified substantial differences in the Gram-negative microbiome present on the skin of AD patients and healthy volunteers;
- found that the predominant species of skin commensal Gram-negative bacteria in healthy volunteers was *Roseomonas mucosa*; and
- discovered that over 50% of AD patients did not have any culturable Gram-negative flora, consistent with DNA-based analysis.

Rigorous preclinical testing established a causal connection between specific strains of *R. mucosa* and skin healing in AD. Subsequent screening based on key parameters of inflammatory skin disease resulted in the identification and selection of three unique therapeutic strains of *R. mucosa* that comprise FB-401. Based on the therapeutic potential observed in preclinical testing, FB-401 was advanced into clinically testing in a Phase 1/2a proof of concept study.

Clinical Trial

Design

FB-401 is lyophilized (freeze-dried) in vials and is reconstituted with an aqueous solution by the patient prior to use which is then sprayed onto the affected areas of the skin. The open-label Phase 1/2a study enrolled two cohorts:

- initial cohort enrolled 10 adult AD patients, 18 years and older; and
- following positive safety assessment from the adult cohort, the second cohort consisted of 20 pediatric patients.

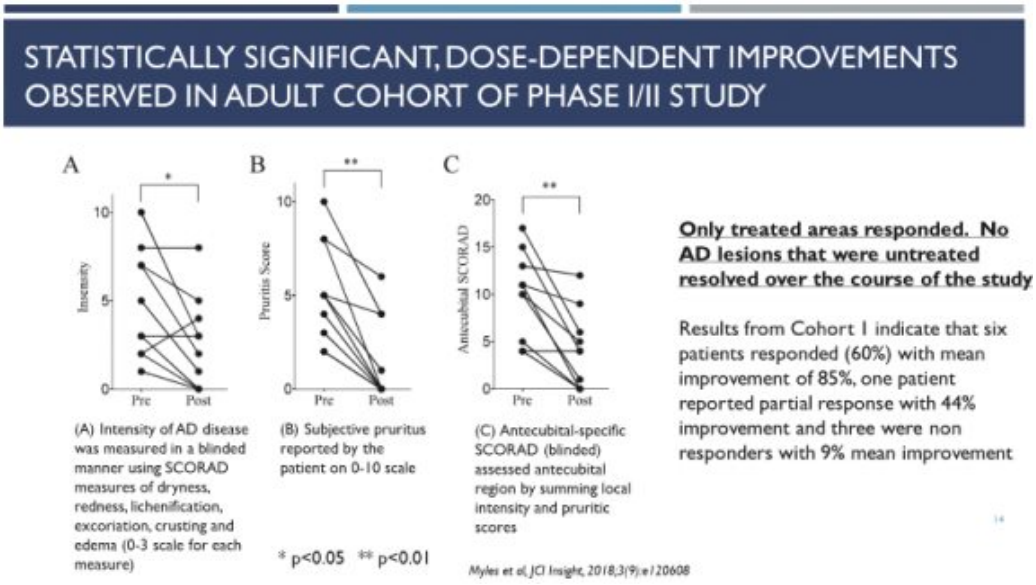
The primary objective of this study was to evaluate the safety and activity of FB-401 as a live biotherapeutic for treatment of AD, and a secondary objective was to evaluate the effect of FB-401 on quality of life of participants with AD.

Results

Adult Cohort

Ten adult AD patients were treated in two-week intervals with increasing dosages of 10^3, 10^4, and 10^5 colony-forming units ("CFU") of R mucosa twice per week for a total of six weeks. CFU is a measure of viable bacterial cells. At enrollment, the history and physical characteristics of each patient's AD was assessed, including the measurement of AD in a blind manner using a clinical tool, SCORing Atopic Dermatitis ("SCORAD"), to assess the extent and severity of AD. SCORAD measures, on a scale of 0-3 for each measure, dryness, redness, lichenification (thick or leathery skin as a result of itching), excoriation (urge to itch), crusting and edema (swelling) of each patient's AD. In addition to SCORAD, each patient's AD was measured and recorded using lab work, photographs and skin swabs. Each patient then also gave their subjective score of pruritus on a scale of 0-10. An A.C. SCORAD was then recorded; A.C. SCORAD is the sum of (i) the intensity (as determined by SCORAD) and (ii) the reported pruritus for each patient for the antecubital area (inside of arm near the elbow). The adults were only treated at the antecubital fossa and one other body area selected by the patients. At the end of the six-week period, each patient's AD was again assessed.

No adverse events were observed in this first adult cohort study. In addition, even with a short duration of therapy, FB-401 demonstrated improvements in this Phase I adult cohort study:



Pediatric Cohort

Twenty pediatric/adolescent patients with active AD were then treated in four four-week intervals for a total of 16 weeks as follows:

- 10^3 CFU twice per week for four weeks;
- 10^4 CFU twice per week for four weeks;
- 10^5 CFU twice per week for four weeks; and
- 10^5 CFU every other day for four weeks.

Assessments of each patient's AD were made at the beginning of the study and at the end of each four-week period using the same assessment methodology described above plus recording the number of steroid applications used by each pediatric patient.

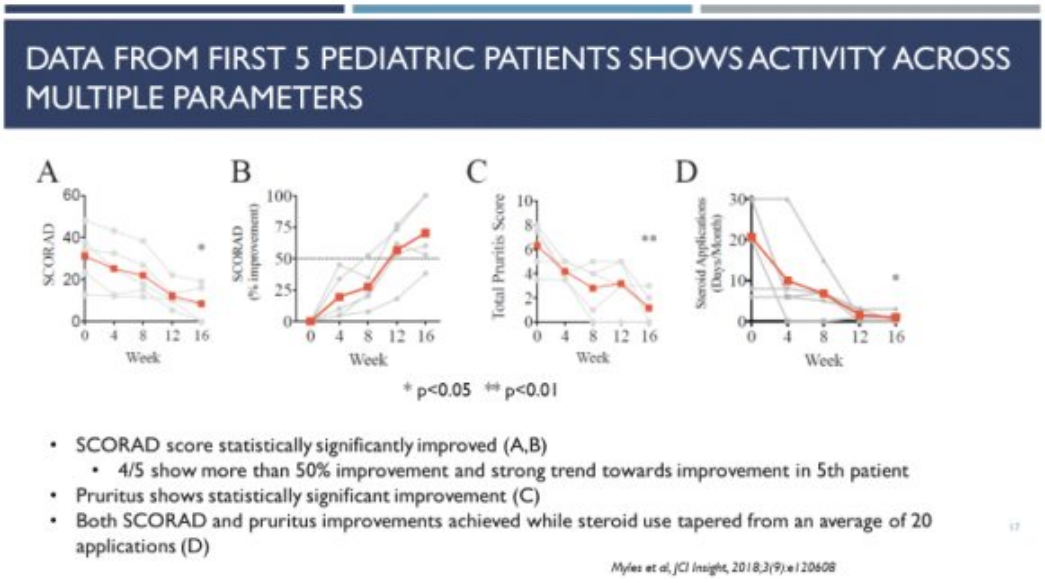
Key clinical parameters included:

- % of subjects with 50% improvement in SCORAD
- % of subjects with 50%, 75% and 90% improvement in Eczema Area and Severity Index ("EASI") score
- % improvement in SCORAD
- % improvement in EASI score

In addition, this study also explored the following objectives:

- Measure trans epidermal water loss ("TEWL");
- Characterize changes to total and specific Immunoglobulin E ("IgE"), which are antibodies produced by the immune system;
- Evaluate potential changes to pre-diagnosed asthma and/or food allergies;
- Evaluate incidence of *S aureus* infections that require treatment; and
- Persistence of *R mucosa* colonization after treatment.

The following shows the results of this pediatric cohort study in the first five patients, ages 7-17:



In addition, significant improvement in one patient's AD is shown below:

FB-401 was designed to improve atopic dermatitis by selecting three strains of *R. mucosa* that demonstrated improvement in barrier function, enhanced immune balance, and inhibited *S. aureus.* As a commensal gram-negative bacterium, Forte believes FB-401 has the potential for an acceptable safety profile. This study was designed to evaluate the safety of FB-401 in subjects with atopic dermatitis. The dose escalation component of the study design allowed safety to be assessed in a conservative manner. Additionally, multiple efficacy parameters were measured to assess the impact of FB-401 on effected skin. The study demonstrated:

- FB-401 was well tolerated in both adult and pediatric/adolescent subjects.
- FB-401 resulted in clinical improvement in treated areas in adult subjects.
- Children treated with FB-401 had improvement in disease activity including as measured by SCORAD, EASI, pruritus, TEWL and the Children's, or Family, Dermatology Life Quality Index. The degree of improvement was substantial and, despite the absence of a control group, appears to be substantially greater than would be expected in a placebo group. Furthermore, these improvements were seen despite meaningful decreases in topical steroid use.

Sales and Marketing

Given the current developmental stage of Forte's product candidates and platform, Forte has not yet established a commercial organization. If FB-401 is approved in the United States and/or Canada, Forte intends to commercialize Forte's products both through selectively building its own sales and marketing team and partnering or collaborating with third parties.

Manufacturing

FB-401 is a live biotherapeutic product that contains live *R. mucosa,* a non-pathogenic normal skin commensal organism in healthy individuals. The manufacturing development of FB-401 is conducted following the general principle set forth in the FDA's June 2016 Guidance for Industry: "Early Clinical Trials with Live Biotherapeutic Products: Chemistry, Manufacturing, and Control Information".

Fermentation. FB-401 is currently being manufactured at scale in accordance with current applicable FDA cGMP. Based on the pilot and cGMP fermentation work to date, Forte expects that a typical commercial fermentation will yield on the order of thousands to tens of thousands of doses per liter.

Purification. The FB-401 purification process utilizes tangential flow filtration ("TFF") to recover, diafilter and concentrate the bacterial cultures. Process development work with TFF at the current manufacturing contractor achieved virtually 100% viability through the manufacturing steps.

Formulation. FB-401 drug substance is produced by mixing the three FB-401 *R. mucosa* strains. FB-401 is filled into vials prior to lyophilization. The lyophilized product is reconstituted by the patient prior to use. FB-401 is administered topically by spraying it onto the affected areas of the skin.

Analytical. Each of the three *R mucosa* strain components in FB-401 is tested and released for manufacturing; specifications include appearance, potency, bioburden, purity and identity including DNA sequencing of the strains.

Forte primarily uses contract manufacturing and testing organizations to support the manufacturing of FB-401 drug product. Forte does not own or operate, and currently have no plans to establish, any GMP manufacturing facilities. Forte expects to continue to rely on third parties for the manufacture of FB-401 for clinical testing, as well as for commercial manufacture if FB-401 or any of its product candidates obtain marketing approval. Forte believes this strategy allows it to maintain a more efficient infrastructure by eliminating the need for Forte to invest capital resources in its own manufacturing facilities, equipment and personnel, while also enabling Forte to focus its expertise and resources on the clinical development of FB-401. To date, Forte has obtained FB-401 from a single-source third-party contract manufacturer. While any reduction or halt in supply from this contract manufacturer could limit Forte's ability to develop FB-401 until a replacement contract manufacturer is found and qualified, Forte believes that it has sufficient access to supply of FB-401 to support its planned clinical trial programs. Forte also believes it has multiple potential additional sources for the manufacture of FB-401.

Intellectual Property

Forte strives to protect and enhance the proprietary technology, inventions and improvements that are commercially important to Forte's business, including seeking, maintaining and defending Forte's patent rights. Forte owns or has an exclusive license to issued patents and patent applications relating to Forte's lead product candidate FB-401, as well as Forte's other product candidates. Forte's policy is to seek to protect its proprietary position by, among other methods, filing patent applications in the United States and in jurisdictions outside of the United States directed to Forte's proprietary technology, inventions, improvements and product candidates that are important to the development and implementation of Forte's business. Forte also relies on trade secrets and know-how relating to Forte's proprietary technology and product candidates and continuing innovation to develop, strengthen and maintain Forte's proprietary position in the field of oncology. Forte also plans to rely on data exclusivity, market exclusivity and patent term extensions when available. Forte's commercial success will depend in part on its ability to obtain and maintain patent and other proprietary protection for its technology, inventions and improvements; to preserve the confidentiality of its trade secrets; to defend and enforce its proprietary rights, including any patents that Forte may own or license in the future; and to operate without infringing on the valid and enforceable patents and other proprietary rights of third parties.

Forte's intellectual property portfolio for its core technology was initially built through licenses from the U.S. Department of Health and Human Services, the Agency for Healthcare Research and Quality and the NIH. Forte subsequently expanded its intellectual property portfolio by filing patent applications worldwide and negotiating additional licenses.

In-Licensed IP

In December 2017, Forte entered into an exclusive license agreement with DHHS. Under the agreement, the DHHS granted Forte an exclusive, sublicensable, worldwide license to certain patent rights under which Forte may develop and commercialize pharmaceutical and biological compositions comprising Gram-negative bacteria

for the topical treatment of dermatological diseases and conditions (the "DHHS License"). Under the DHHS License, Forte is obligated to meet certain development benchmarks within certain time periods. If Forte is unable to meet any of these development benchmarks, the DHHS could terminate the license. In addition, the DHHS may terminate or modify the DHHS License in the event of a material breach or upon certain insolvency events that remain uncured following the date that is 90 days following written notice of such material breach or insolvency event. The DHHS also has the right to require Forte to grant mandatory sublicenses to the patent rights licensed from the DHHS to product candidates covered by other DHHS licenses under certain specified circumstances, including if it is necessary to meet health and safety needs that Forte is not reasonably satisfying or if necessary to meet requirements for public use specified by federal regulations, which Forte is not reasonably satisfying. Any required sublicense of the DHHS License could result in the loss of significant rights and could harm Forte's ability to commercialize licensed products.

With respect to the financial obligations under the DHHS License, Forte is obligated to pay the DHHS a minimum annual payment of $20,000 and is required to reimburse the DHHS for certain patent-related expenses. In addition, Forte may also be obligated to make "benchmark" payments to the DHHS aggregating up to $105.5 million based on achieving specified development, regulatory and commercial milestones for the first licensed product and additional benchmark payments for each additional licensed product. In addition, to the extent licensed products are approved for commercial sale, Forte is also obligated to pay the DHHS a royalty within the range of 10% to 15% based on net sales of licensed products sold by Forte and its sublicensees until 2036. As of December 31, 2019, Forte had made aggregate payments of $0.07 million to the DHHS under the license.

Forte Owned IP

More specifically with respect to FB-401, Forte's four U.S. patents in its exclusively licensed portfolio described above have claims directed to Forte's lead product candidate FB-401 as a pharmaceutical composition comprising FB-401, as well as claims directed to a method of treatment of atopic dermatitis comprising administering FB-401. These U.S. patents are expected to expire in March 2037, absent any patent term extensions for regulatory delay.

As of March 1, 2020, Forte owned pending patent applications related to its FB-401 product candidate. Specifically, Forte owned two pending U.S. patent applications, two pending U.S. provisional patent applications and two pending foreign patent applications, both of which are international patent applications filed under the Patent Cooperation Treaty.

Forte's owned portfolio described above also includes other pending patent applications related to FB-401. These applications include claims directed to FB-401 formulations, their manufacture, and their use for treatment of atopic disorders, including psoriasis, rosacea, and acne. Any patents that may issue from Forte's pending patent applications related to FB-401 are expected to expire between 2039 and 2041, absent any patent term adjustments or extensions.

Forte also possess substantial know-how and trade secrets relating to the development and commercialization of Forte's product candidates, including related manufacturing processes and technology.

With respect to Forte's product candidates and processes Forte intends to develop and commercialize in the normal course of business, Forte intends to pursue patent protection covering, when possible, microbial consortia, methods of use, dosing and formulations. Microorganisms in FB-401 are naturally occurring Gram-negative bacteria. As such, pure composition of matter claims may not be possible in certain countries.

Issued patents can provide protection for varying periods of time, depending upon the date of filing of the patent application, the date of patent issuance and the legal term of patents in the countries in which they are obtained. In general, patents issued for applications filed in the United States can provide exclusionary rights for

20 years from the earliest effective filing date. In addition, in certain instances, the term of an issued U.S. patent that covers or claims an FDA approved product can be extended to recapture a portion of the term effectively lost as a result of the FDA regulatory review period, which is called patent term extension. The restoration period cannot be longer than five years and the total patent term, including the restoration period, must not exceed 14 years following FDA approval. The term of patents outside of the United States varies in accordance with the laws of the foreign jurisdiction, but typically is also 20 years from the earliest effective filing date. However, the actual protection afforded by a patent varies on a product-by-product basis, from country-to-country and depends upon many factors, including the type of patent, the scope of its coverage, the availability of regulatory-related extensions, the availability of legal remedies in a particular country and the validity and enforceability of the patent.

The patent positions of companies like Forte's are generally uncertain and involve complex legal and factual questions. No consistent policy regarding the scope of claims allowable in patents in the field of oncology has emerged in the United States. The relevant patent laws and their interpretation outside of the United States is also uncertain. Changes in either the patent laws or their interpretation in the United States and other countries may diminish Forte's ability to protect Forte's technology or product candidates and could affect the value of such intellectual property. In particular, Forte's ability to stop third parties from making, using, selling, offering to sell or importing products that infringe Forte's intellectual property will depend in part on Forte's success in obtaining and enforcing patent claims that cover Forte's technology, inventions and improvements. Forte cannot guarantee that patents will be granted with respect to any of Forte's pending patent applications or with respect to any patent applications Forte may file in the future, nor can Forte be sure that any patents that may be granted to it in the future will be commercially useful in protecting Forte's products, the methods of use or manufacture of those products. Moreover, even Forte's issued patents may not guarantee it the right to practice Forte's technology in relation to the commercialization of Forte's products. Patent and other intellectual property rights in the pharmaceutical and biotechnology space are evolving and involve many risks and uncertainties. For example, third parties may have blocking patents that could be used to prevent Forte from commercializing its product candidates and practicing its proprietary technology, and Forte's issued patents may be challenged, invalidated or circumvented, which could limit Forte's ability to stop competitors from marketing related products or could limit the term of patent protection that otherwise may exist for Forte's product candidates. In addition, the scope of the rights granted under any issued patents may not provide Forte with protection or competitive advantages against competitors with similar technology. Furthermore, Forte's competitors may independently develop similar technologies that are outside the scope of the rights granted under any issued patents. For these reasons, Forte may face competition with respect to its product candidates. Moreover, because of the extensive time required for development, testing and regulatory review of a potential product, it is possible that, before any particular product candidate can be commercialized, any patent protection for such product may expire or remain in force for only a short period following commercialization, thereby reducing the commercial advantage the patent provides.

Government Regulation

Government authorities in the United States at the federal, state and local level and in other countries regulate, among other things, the research, development, testing, manufacture, quality control, approval, labeling, packaging, storage, record-keeping, promotion, advertising, distribution, post-approval monitoring and reporting, marketing and export and import of drug and biological products. Generally, before a new drug or biologic can be marketed, considerable data demonstrating its quality, safety and efficacy must be obtained, organized into a format specific for each regulatory authority, submitted for review and approved by the regulatory authority.

United States Biological Product Development

In the United States, the FDA regulates drugs under the Federal Food, Drug, and Cosmetic Act ("FDCA"), and its implementing regulations and biologics under the FDCA, the Public Health Service Act ("PHSA"), and their implementing regulations. Both drugs and biologics are also subject to other federal, state and local statutes

and regulations. The process of obtaining regulatory approvals and the subsequent compliance with appropriate federal, state and local statutes and regulations requires the expenditure of substantial time and financial resources. Failure to comply with the applicable U.S. requirements at any time during the product development process, approval process or post-market may subject an applicant to administrative or judicial sanctions. These sanctions could include, among other actions, the FDA's refusal to approve pending applications, withdrawal of an approval or license revocation, a clinical hold, untitled or warning letters, product recalls or market withdrawals, product seizures, total or partial suspension of production or distribution, injunctions, fines, refusals of government contracts, restitution, disgorgement and civil or criminal penalties.

Forte's product candidates must be approved by the FDA through a BLA, process before they may be legally marketed in the United States. The process generally involves the following:

- Completion of extensive preclinical studies in accordance with applicable regulations, including studies conducted in accordance with good laboratory practice ("GLP"), requirements;
- Submission to the FDA of an IND, application, which must become effective before human clinical trials may begin;
- Approval by an IRB, or independent ethics committee at each clinical trial site before each trial may be initiated;
- Performance of adequate and well-controlled human clinical trials in accordance with applicable IND regulations, GCP, requirements and other clinical trial-related regulations to establish the safety and efficacy of the investigational product for each proposed indication;
- Submission to the FDA of a BLA;
- A determination by the FDA within 60 days of its receipt of a BLA to accept the filing for review;
- Satisfactory completion of an FDA pre-approval inspection of the manufacturing facility or facilities where the biologic will be produced to assess compliance with cGMP requirements to assure that the facilities, methods and controls are adequate to preserve the biologic's identity, strength, quality and purity;
- Potential FDA audit of the clinical trial sites that generated the data in support of the BLA; and
- FDA review and approval of the BLA, including consideration of the views of any FDA advisory committee, prior to any commercial marketing or sale of the biologic in the United States.

Preclinical Studies and IND

Preclinical studies include laboratory evaluation of product chemistry and formulation, as well as *in vitro* and animal studies to assess the potential for adverse events and in some cases, to establish a rationale for therapeutic use. The conduct of preclinical studies is subject to federal regulations and requirements, including GLP regulations for safety/toxicology studies.

A sponsor must submit the results of the preclinical tests, together with manufacturing information, analytical data, any available clinical data or literature and plans for clinical studies, among other things, to the FDA as part of an IND. An IND is a request for authorization from the FDA to administer an investigational product to humans and must become effective before human clinical trials may begin. Some long-term preclinical testing may continue after the IND is submitted. An IND automatically becomes effective 30 days after receipt by the FDA unless, before that time, the FDA raises concerns or questions related to one or more proposed clinical trials and places the trial on clinical hold. In that case, the IND sponsor and the FDA must resolve any outstanding concerns before the clinical trial can begin. As a result, submission of an IND may not result in the FDA allowing clinical trials to commence.

Clinical Trials

The clinical stage of development involves the administration of the investigational product to healthy volunteers or patients under the supervision of qualified investigators, generally physicians not employed by or under the trial sponsor's control, in accordance with GCP requirements, which include the requirement that all research subjects provide their informed consent for their participation in any clinical trial. Clinical trials are conducted under protocols detailing, among other things, the objectives of the clinical trial, dosing procedures, subject selection and exclusion criteria and the parameters to be used to monitor subject safety and assess efficacy. Each protocol, and any subsequent amendments to the protocol, must be submitted to the FDA as part of the IND. Furthermore, each clinical trial must be reviewed and approved by an IRB for each institution at which the clinical trial will be conducted to ensure that the risks to individuals participating in the clinical trials are minimized and are reasonable in relation to anticipated benefits. The IRB also approves the informed consent form that must be provided to each clinical trial subject or his or her legal representative and must monitor the clinical trial until completed. There also are requirements governing the reporting of ongoing clinical trials and completed clinical trial results to public registries.

A sponsor who wishes to conduct a clinical trial outside of the United States may, but need not, obtain FDA authorization to conduct the clinical trial under an IND. If a foreign clinical trial is not conducted under an IND, the sponsor may submit data from the clinical trial to the FDA in support of a BLA. The FDA will accept a well-designed and well-conducted foreign clinical study not conducted under an IND if the study was conducted in accordance with GCP requirements, and the FDA is able to validate the data through an onsite inspection if deemed necessary.

Clinical trials generally are conducted in three sequential phases, known as Phase 1, Phase 2 and Phase 3, which may overlap.

- Phase 1 clinical trials generally involve a small number of healthy volunteers or disease-affected patients who are initially exposed to a single dose and then multiple doses of the product candidate. The primary purpose of these clinical trials is to assess the metabolism, pharmacologic action, side effect tolerability and safety of the product candidate.
- Phase 2 clinical trials involve studies in disease-affected patients to determine the dose required to produce the desired benefits. During Phase 2 clinical trials, safety and further pharmacokinetic and pharmacodynamic information is collected, possible adverse effects and safety risks are identified, and a preliminary evaluation of efficacy is conducted.
- Phase 3 clinical trials generally involve a large number of patients at multiple sites and are designed to provide the data necessary to demonstrate the effectiveness of the product for its intended use, its safety in use and to establish the overall benefit/risk relationship of the product and provide an adequate basis for product labeling.

Post-approval trials, sometimes referred to as Phase 4 clinical trials, may be conducted after initial marketing approval. These trials are used to gain additional experience from the treatment of patients in the intended therapeutic indication. In certain instances, the FDA may mandate the performance of Phase 4 clinical trials as a condition of approval of a BLA.

Progress reports detailing the results of the clinical trials, among other information, must be submitted at least annually to the FDA and written IND safety reports must be submitted to the FDA and the investigators for serious and unexpected suspected adverse events, findings from other studies or animal or *in vitro* testing that suggest a significant risk for human subjects and any clinically important increase in the rate of a serious suspected adverse reaction over that listed in the protocol or investigator brochure.

Phase 1, Phase 2 and Phase 3 clinical trials may not be completed successfully within any specified period, if at all. The FDA or the sponsor may suspend or terminate a clinical trial at any time on various grounds, including a finding that the research subjects or patients are being exposed to an unacceptable health risk. Similarly, an IRB can suspend or terminate approval of a clinical trial at its institution if the clinical trial is not

being conducted in accordance with the IRB's requirements or if the drug or biologic has been associated with unexpected serious harm to patients. Additionally, some clinical trials are overseen by an independent group of qualified experts organized by the clinical trial sponsor, known as a data safety monitoring board or committee. This group provides authorization for whether a trial may move forward at designated check points based on access to certain data from the trial. Concurrent with clinical trials, companies usually complete additional animal studies and also must develop additional information about the chemistry and physical characteristics of the drug or biologic, as well as finalize a process for manufacturing the product in commercial quantities in accordance with cGMP requirements. The manufacturing process must be capable of consistently producing quality batches of the product and, among other things, companies must develop methods for testing the identity, strength, quality and purity of the final product. Additionally, appropriate packaging must be selected and tested, and stability studies must be conducted to demonstrate that the product candidates do not undergo unacceptable deterioration over their shelf life.

Further, as a result of the COVID-19 pandemic, the extent and length of which is uncertain, Forte will be required to develop and implement additional clinical study policies and procedures designed to help protect study participants from the COVID-19 virus, which may include using telemedicine visits and remote monitoring of patients and clinical sites. Forte will also need to ensure data from its clinical studies that may be disrupted as a result of the pandemic is collected pursuant to the study protocol and is consistent with GCPs, with any material protocol deviation reviewed and approved by the site IRB. Patients who may miss scheduled appoints, any interruption in study drug supply, or other consequence that may result in incomplete data being generated during a study as a result of the pandemic must be adequately documented and justified. For example, on March 18, 2020, FDA issued a guidance on conducting clinical trials during the pandemic, which describe a number of considerations for sponsors of clinical trials impacted by the pandemic, including the requirement to include in the clinical study report (or as a separate document) contingency measures implemented to manage the study, and any disruption of the study as a result of COVID-19; a list of all study participants affected by COVID-19-related study disruption by unique subject identifier and by investigational site, and a description of how the individual's participation was altered; and analyses and corresponding discussions that address the impact of implemented contingency measures (e.g., participant discontinuation from investigational product and/or study, alternative procedures used to collect critical safety and/or efficacy data) on the safety and efficacy results reported for the study.

FDA Review Process

Following completion of the clinical trials, data are analyzed to assess whether the investigational product is safe and effective for the proposed indicated use or uses. The results of preclinical studies and clinical trials are then submitted to the FDA as part of a BLA, along with proposed labeling, chemistry and manufacturing information to ensure product quality and other relevant data. The BLA is a request for approval to market the biologic for one or more specified indications and must contain proof of safety, purity and potency for the biologic. The application may include both negative and ambiguous results of preclinical studies and clinical trials, as well as positive findings. Data may come from company-sponsored clinical trials intended to test the safety and efficacy of a product's use or from several alternative sources, including studies initiated by investigators. To support marketing approval, the data submitted must be sufficient in quality and quantity to establish the safety and efficacy of the investigational product to the satisfaction of the FDA. FDA approval of a BLA must be obtained before a biologic may be marketed in the United States.

Under the Prescription Drug User Fee Act ("PDUFA"), as amended, each BLA must be accompanied by a user fee. The FDA adjusts the PDUFA user fees on an annual basis. Fee waivers or reductions are available in certain circumstances, including a waiver of the application fee for the first application filed by a small business.

The FDA reviews all submitted BLAs before it accepts them for filing and may request additional information rather than accept a BLA for filing. The FDA must decide whether to accept a BLA for filing within 60 days of receipt. Once the submission is accepted for filing, the FDA begins an in-depth review of the BLA.

Under the goals and policies agreed to by the FDA under PDUFA, the FDA has 10 months from the filing date to complete its initial review of an original BLA and respond to the applicant, and six months from the filing date of an original BLA designated for priority review. The FDA does not always meet its PDUFA goal dates for standard and priority BLAs, and the review process is often extended by FDA requests for additional information or clarification.

Before approving a BLA, the FDA will conduct a pre-approval inspection of the manufacturing facilities for the new product to determine whether they comply with cGMP requirements. The FDA will not approve the product unless it determines that the manufacturing processes and facilities comply with cGMP requirements and adequate to assure consistent production of the product within required specifications. The FDA also may audit data from clinical trials to ensure compliance with GCP requirements. Additionally, the FDA may refer applications for novel products or products that present difficult questions of safety or efficacy to an advisory committee, typically a panel that includes clinicians and other experts, for review, evaluation and a recommendation as to whether the application should be approved and under what conditions, if any. The FDA is not bound by recommendations of an advisory committee, but it considers those recommendations when making decisions on approval. The FDA likely will reanalyze the clinical trial data, which could result in extensive discussions between the FDA and the applicant during the review process. After the FDA evaluates a BLA, it will issue an approval letter or a Complete Response Letter. An approval letter authorizes commercial marketing of the biologic with specific prescribing information for specific indications. A Complete Response Letter indicates that the review cycle of the application is complete, and the application will not be approved in its present form. A Complete Response Letter usually describes all of the specific deficiencies in the BLA identified by the FDA. The Complete Response Letter may require additional clinical data, additional pivotal Phase 3 clinical trial(s) and/or other significant and time-consuming requirements related to clinical trials, preclinical studies or manufacturing. If a Complete Response Letter is issued, the applicant may either resubmit the BLA, addressing all of the deficiencies identified in the letter, or withdraw the application. Even if an applicant submits the requested data and information, the FDA may decide that the BLA does not satisfy the criteria for approval. Data obtained from clinical trials are not always conclusive and the FDA may interpret data differently than an applicant does.

Pediatric Information

Under the Pediatric Research Equity Act, as amended ("PREA"), a BLA or supplement to a BLA must contain data to assess the safety and efficacy of the drug for the claimed indications in all relevant pediatric subpopulations and to support dosing and administration for each pediatric subpopulation for which the product is safe and effective. The FDA may grant deferrals for submission of pediatric data or full or partial waivers. A sponsor who is planning to submit a marketing application for a drug that includes a new active ingredient, new indication, new dosage form, new dosing regimen or new route of administration must submit an initial Pediatric Study Plan ("PSP"), within 60 days of an end-of-Phase 2 meeting or, if there is no such meeting, as early as practicable before the initiation of the Phase 3 or Phase 2/3 study. The initial PSP must include an outline of the pediatric study or studies that the sponsor plans to conduct, including study objectives and design, age groups, relevant endpoints and statistical approach, or a justification for not including such detailed information, and any request for a deferral of pediatric assessments or a full or partial waiver of the requirement to provide data from pediatric studies along with supporting information. The FDA and the sponsor must reach an agreement on the PSP. A sponsor can submit amendments to an agreed-upon initial PSP at any time if changes to the pediatric plan need to be considered based on data collected from preclinical studies, early phase clinical trials and/or other clinical development programs.

Post-marketing Requirements

Following approval of a new product, the manufacturer and the approved product are subject to continuing regulation by the FDA, including, among other things, monitoring and record-keeping activities, reporting of adverse experiences, complying with promotion and advertising requirements, which include restrictions on

promoting products for unapproved uses or patient populations (known as "off-label use") and limitations on industry-sponsored scientific and educational activities. Although physicians may prescribe legally available products for off-label uses, manufacturers may not market or promote off-label uses. Prescription biologic promotional materials must be submitted to the FDA in conjunction with their first use. Further, if there are any modifications to the biologic, including changes in indications, labeling or manufacturing processes or facilities, the applicant may be required to submit and obtain FDA approval of a new BLA or BLA supplement, which may require the development of additional data or preclinical studies and clinical trials.

The FDA may also place other conditions on approvals including the requirement for a Risk Evaluation and Mitigation Strategy ("REMS"), to assure the safe use of the product. If the FDA concludes a REMS is needed, the sponsor of the BLA must submit a proposed REMS and the FDA will not approve the BLA without an approved REMS. A REMS could include medication guides, physician communication plans or elements to assure safe use, such as restricted distribution methods, patient registries and other risk minimization tools. Any of these limitations on approval or marketing could restrict the commercial promotion, distribution, prescription or dispensing of products. Product approvals may be withdrawn for non-compliance with regulatory standards or if problems occur following initial marketing. Newly discovered or developed safety or effectiveness data may require changes to a product's approved labeling, including the addition of new warnings and contraindications, and may also require the implementation of other risk management measures, including a REMS, or the conduct of post-marketing studies to assess a newly discovered safety issue.

FDA regulations require that products be manufactured in specific approved facilities and in accordance with cGMP regulations. Forte relies, and expects to continue to rely, on third parties to produce clinical and commercial quantities of Forte's products in accordance with cGMP regulations. These manufacturers must comply with cGMP regulations that require, among other things, quality control and quality assurance, the maintenance of records and documentation and the obligation to investigate and correct any deviations from cGMP. Manufacturers and other entities involved in the manufacture and distribution of approved biologics are required to register their establishments with the FDA and certain state agencies and are subject to periodic unannounced inspections by the FDA and certain state agencies for compliance with cGMP requirements and other laws.

Accordingly, manufacturers must continue to expend time, money and effort in the area of production and quality control to maintain cGMP compliance. The discovery of violative conditions, including failure to conform to cGMP regulations, could result in enforcement actions, and the discovery of problems with a product after approval may result in restrictions on a product, manufacturer or holder of an approved BLA, including recall.

Other Regulatory Matters

Manufacturing, sales, promotion and other activities following product approval are also subject to regulation by numerous regulatory authorities in the United States in addition to the FDA, including the CMS, other divisions of the Department of Health and Human Services, the Department of Justice, the Drug Enforcement Administration, the Consumer Product Safety Commission, the Federal Trade Commission, the Occupational Safety & Health Administration, the Environmental Protection Agency and state and local governments and governmental agencies.

Other Healthcare Laws

Healthcare providers, physicians, and third-party payors will play a primary role in the recommendation and prescription of any products for which Forte may obtain marketing approval. Forte's future arrangements with third-party payors, healthcare providers and physicians may expose Forte to broadly applicable fraud and abuse and other healthcare laws and regulations that may constrain the business or financial arrangements and relationships through which Forte market, sell and distribute any drugs for which Forte obtain marketing

approval. In the United States, these laws include, without limitation, state and federal anti-kickback, false claims, physician transparency, and patient data privacy and security laws and regulations, including but not limited to those described below. Forte's business operations, including its research, marketing, and activities relating to the reporting of wholesaler or estimated retail prices for Forte's products, the reporting of prices used to calculate Medicaid rebate information and other information affecting federal, state and third-party reimbursement for Forte's products, and the sale and marketing of Forte's product and any future product candidates, are subject to scrutiny under these laws.

- The Anti-Kickback Statute ("AKS"), makes it illegal for any person, including a prescription drug manufacturer (or a party acting on its behalf), to knowingly and willfully solicit, receive, offer or pay any remuneration, directly or indirectly, overtly or covertly, in cash or in kind, that is intended to induce or reward referrals, including the purchase, recommendation, order or prescription of a particular drug, for which payment may be made under a federal healthcare program, such as Medicare or Medicaid. Violations of this law are punishable by imprisonment, criminal fines, administrative civil money penalties and exclusion from participation in federal healthcare programs. In addition, a person or entity does not need to have actual knowledge of the statute or specific intent to violate it.
- The federal civil and criminal false claims laws, including the federal False Claims Act, which can be enforced through civil whistleblower or qui tam actions, which impose penalties against individuals or entities (including manufacturers) for, among other things, knowingly presenting, or causing to be presented false or fraudulent claims for payment by a federal healthcare program or making a false statement or record material to payment of a false claim or avoiding, decreasing or concealing an obligation to pay money to the federal government. The government may deem manufacturers to have "caused" the submission of false or fraudulent claims by, for example, providing inaccurate billing or coding information to customers or promoting a product off-label. Claims that include items or services resulting from a violation of the federal Anti-Kickback Statute are false or fraudulent claims for purposes of the False Claims Act.
- The federal anti-inducement law, which prohibits, among other things, the offering or giving of remuneration, which includes, without limitation, any transfer of items or services for free or for less than fair market value (with limited exceptions), to a Medicare or Medicaid beneficiary that the person knows or should know is likely to influence the beneficiary's selection of a particular supplier of items or services reimbursable by a federal or state governmental program.
- HIPAA imposes criminal and civil liability for knowingly and willfully executing a scheme, or attempting to execute a scheme, to defraud any healthcare benefit program, including private payors, or falsifying, concealing or covering up a material fact or making any materially false statements in connection with the delivery of or payment for healthcare benefits, items or services. Similar to the U.S. federal Anti-Kickback Statute, a person or entity does not need to have actual knowledge of the healthcare fraud statute implemented under HIPAA or specific intent to violate it in order to have committed a violation.
- HIPAA, as amended by HITECH, and their respective implementing regulations, imposes, among other things, specified requirements on covered entities and their business associates relating to the privacy and security of individually identifiable health information including mandatory contractual terms and required implementation of technical safeguards of such information. HITECH also created new tiers of civil monetary penalties, amended HIPAA to make civil and criminal penalties directly applicable to business associates, and gave state attorneys general new authority to file civil actions for damages or injunctions in federal courts to enforce the federal HIPAA laws and seek attorneys' fees and costs associated with pursuing federal civil actions.
- The Physician Payments Sunshine Act, enacted as part of the ACA, imposed new annual reporting requirements for certain manufacturers of drugs, devices, biologics, and medical supplies for which payment is available under Medicare, Medicaid, or the Children's Health Insurance Program, for certain payments and "transfers of value" provided to physicians (defined to include doctors, dentists,

optometrists, podiatrists and chiropractors) and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members. Effective January 1, 2022, these reporting obligations will extend to include transfers of value made during the previous year to certain non-physician providers such as physician assistants and nurse practitioners.

- Analogous state and foreign fraud and abuse laws and regulations, such as state anti-kickback and false claims laws, which may be broader in scope and apply regardless of payor. These laws are enforced by various state agencies and through private actions. Some state laws require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant federal government compliance guidance, require drug manufacturers to report information related to payments and other transfers of value to physicians and other healthcare providers, and restrict marketing practices or require disclosure of marketing expenditures. In addition, certain state and local laws require the registration of pharmaceutical sales representatives.

State and foreign laws also govern the privacy and security of health information in some circumstances. These data privacy and security laws may differ from each other in significant ways and often are not pre-empted by HIPAA, which may complicate compliance efforts. California recently enacted the CCPA, which creates new individual privacy rights for California consumers (as defined in the law) and places increased privacy and security obligations on entities handling personal data of consumers or households. The CCPA requires covered companies to provide certain disclosures to consumers about its data collection, use and sharing practices, and to provide affected California residents with ways to opt-out of certain sales or transfers of personal information. The CCPA went into effect on January 1, 2020, and the California Attorney General will commence enforcement actions against violators beginning July 1, 2020. While there is currently an exception for protected health information that is subject to HIPAA and clinical trial regulations, as currently written, the CCPA may impact Forte's business activities. The California Attorney General has proposed draft regulations, which have not been finalized to date, that may further impact Forte's business activities if they are adopted. The uncertainty surrounding the implementation of CCPA exemplifies the vulnerability of Forte's business to the evolving regulatory environment related to personal data and protected health information.

The scope and enforcement of each of these laws is uncertain and subject to rapid change in the current environment of healthcare reform, especially considering the lack of applicable precedent and regulations. Federal and state enforcement bodies have continued to increase their scrutiny of interactions between healthcare companies and healthcare providers, which has led to investigations, prosecutions, convictions and settlements in the healthcare industry. It is possible that governmental authorities will conclude that Forte's business practices do not comply with current or future statutes, regulations or case law involving applicable fraud and abuse or other healthcare laws and regulations. If Forte's operations are found to be in violation of any of these laws or any other related governmental regulations that may apply to it, Forte may be subject to significant civil, criminal and administrative penalties, damages, fines, imprisonment, disgorgement, exclusion of drugs from government funded healthcare programs, such as Medicare and Medicaid, reputational harm, additional oversight and reporting obligations if Forte becomes subject to a corporate integrity agreement or similar settlement to resolve allegations of non-compliance with these laws and the curtailment or restructuring of Forte's operations. If any of the physicians or other healthcare providers or entities with whom Forte expects to do business is found to be not in compliance with applicable laws, they may be subject to similar actions, penalties and sanctions. Ensuring business arrangements comply with applicable healthcare laws, as well as responding to possible investigations by government authorities, can be time- and resource-consuming and can divert a company's attention from its business.

Current and Future Healthcare Reform Legislation

In the United States and foreign jurisdictions, there have been a number of legislative and regulatory changes and proposed changes regarding the healthcare system that could prevent or delay marketing approval of Forte product candidates, restrict or regulate post-approval activities, and affect Forte's ability to profitably sell

any product candidates for which it obtains marketing approval. Forte expects that current laws, as well as other healthcare reform measures that may be adopted in the future, may result in more rigorous coverage criteria and additional downward pressure on the price that Forte, or any of its collaborators, may receive for any approved products.

The ACA, for example, contains provisions that subject biological products to potential competition by lower-cost biosimilars and may reduce the profitability of drug products through increased rebates for drugs reimbursed by Medicaid programs, address a new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for drugs that are inhaled, infused, instilled, implanted or injected, increase the minimum Medicaid rebates owed by manufacturers under the Medicaid Drug Rebate Program and extends the rebate program to individuals enrolled in Medicaid managed care organizations, establish annual fees and taxes on manufacturers of certain branded prescription drugs, and create a new Medicare Part D coverage gap discount program, in which manufacturers must agree to offer 70% (increased pursuant to the Bipartisan Budget Act of 2018, effective as of 2019) point-of-sale discounts off negotiated prices of applicable brand drugs to eligible beneficiaries during their coverage gap period, as a condition for the manufacturer's outpatient drugs to be covered under Medicare Part D.

There remain judicial, administrative, executive, and legislative challenges to certain aspects of the ACA, and Forte expects there will be additional challenges and amendments to the ACA in the future. For example, various portions of the ACA are currently undergoing legal and constitutional challenges in the Fifth Circuit Court and the United States Supreme Court, and the Trump Administration has issued various Executive Orders which eliminated cost sharing subsidies and various provisions that would impose a fiscal burden on states or a cost, fee, tax, penalty or regulatory burden on individuals, healthcare providers, health insurers, or manufacturers of pharmaceuticals or medical devices. Additionally, Congress has introduced several pieces of legislation aimed at significantly revising or repealing the ACA. It is unclear whether the ACA will be overturned, repealed, replaced, or further amended. Forte cannot predict what affect further changes to the ACA would have on Forte's business.

Additionally, other federal health reform measures have been proposed and adopted in the United States since the ACA was enacted:

- The Budget Control Act of 2011, among other things, created measures for spending reductions by Congress. A Joint Select Committee on Deficit Reduction, tasked with recommending a targeted deficit reduction of at least $1.2 trillion for the years 2013 through 2021, was unable to reach required goals, thereby triggering the legislation's automatic reduction to several government programs. These changes included aggregate reductions to Medicare payments to providers of up to 2% per fiscal year, which went into effect in April 2013 and, due to subsequent legislative amendments to the statute, including the BBA, will remain in effect through 2029, unless additional Congressional action is taken.
- The American Taxpayer Relief Act of 2012, among other things, reduced Medicare payments to several providers, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years.
- The Middle Class Tax Relief and Job Creation Act of 2012 required that CMS reduce the Medicare clinical laboratory fee schedule by 2% in 2013, which served as a base for 2014 and subsequent years. In addition, effective January 1, 2014, CMS also began bundling the Medicare payments for certain laboratory tests ordered while a patient received services in a hospital outpatient setting.

Further, there has been heightened governmental scrutiny over the manner in which manufacturers set prices for their marketed products, which have resulted in several recent Congressional inquiries and proposed and enacted bills designed to, among other things, bring more transparency to product pricing, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for products. In addition, the United States government, state legislatures, and foreign governments have shown significant interest in implementing cost containment programs, including price-

controls, restrictions on reimbursement and requirements for substitution of generic products for branded prescription drugs to limit the growth of government paid health care costs. For example, the United States government has passed legislation requiring pharmaceutical manufacturers to provide rebates and discounts to certain entities and governmental payors to participate in federal healthcare programs. At the federal level, the U.S. Presidential administration's budget proposal for the fiscal year 2021 includes a $135 billion allowance to support legislative proposals seeking to reduce drug prices, increase competition, lower out-of-pocket drug costs for patients, and increase patient access to lower-cost generic and biosimilar drugs. Further, Congress and the current administration have each indicated that it will continue to seek new legislative and/or administrative measures to control drug costs, and the current administration previously released a "Blueprint", or plan, to reduce the cost of drugs. The U.S. Department of Health and Human Services ("HHS"), has solicited feedback on some of these measures and has implemented others under its existing authority. In May 2019, CMS issued a final rule to allow Medicare Advantage Plans the option of using step therapy, a type of prior authorization, for Part B drugs beginning January 1, 2020. This final rule codified CMS's policy change that was effective January 1, 2019. Although a number of these and other measures may require additional authorization to become effective, Congress and the Trump administration have each indicated that it will continue to seek new legislative and/or administrative measures to control drug costs. For example, on September 25, 2019, the Senate Finance Committee introduced the Prescription Drug Pricing Reduction Action of 2019, a bill intended to reduce Medicare and Medicaid prescription drug prices. The proposed legislation would restructure the Part D benefit, modify payment methodologies for certain drugs, and impose an inflation cap on drug price increases. An even more restrictive bill, the Lower Drug Costs Now Act of 2019, was introduced in the House of Representatives on September 19, 2019, and would require the HHS to directly negotiate drug prices with manufacturers. The Lower Drugs Costs Now Act of 2019 has passed out of the House and was delivered to the Senate in December 2019. However, it is unclear whether either of these bills will make it through both chambers and be signed into law, and if either is enacted, what effect it would have on Forte's business. Individual states in the United States have also increasingly passed legislation and implemented regulations designed to control pharmaceutical product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures, and, in some cases, designed to encourage importation from other countries and bulk purchasing. Individual states in the United States have also been increasingly passing legislation and implementing regulations designed to control pharmaceutical and biological product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures, and, in some cases, designed to encourage importation from other countries and bulk purchasing.

Packaging and Distribution in the United States

If Forte's products are made available to authorized users of the Federal Supply Schedule of the General Services Administration, additional laws and requirements apply. Products must meet applicable child-resistant packaging requirements under the U.S. Poison Prevention Packaging Act. Manufacturing, sales, promotion and other activities also are potentially subject to federal and state consumer protection and unfair competition laws.

The distribution of pharmaceutical products is subject to additional requirements and regulations, including extensive record-keeping, licensing, storage and security requirements intended to prevent the unauthorized sale of pharmaceutical products.

The failure to comply with any of these laws or regulatory requirements subjects firms to possible legal or regulatory action. Depending on the circumstances, failure to meet applicable regulatory requirements can result in criminal prosecution, fines or other penalties, injunctions, exclusion from federal healthcare programs, requests for recall, seizure of products, total or partial suspension of production, denial or withdrawal of product approvals, or refusal to allow a firm to enter into supply contracts, including government contracts. Any action against Forte for violation of these laws, even if Forte successfully defend against it, could cause Forte to incur significant legal expenses and divert Forte's management's attention from the operation of its business. Prohibitions or restrictions on sales or withdrawal of future products marketed by Forte could materially affect its business in an adverse way.

Changes in regulations, statutes or the interpretation of existing regulations could impact Forte's business in the future by requiring, for example: (i) changes to Forte's manufacturing arrangements; (ii) additions or modifications to product labeling; (iii) the recall or discontinuation of Forte's products; or (iv) additional record-keeping requirements. If any such changes were to be imposed, they could adversely affect the operation of Forte's business.

Other U.S. Environmental, Health and Safety Laws and Regulations

Forte may be subject to numerous environmental, health and safety laws and regulations, including those governing laboratory procedures and the handling, use, storage, treatment and disposal of hazardous materials and wastes. From time to time and in the future, Forte's operations may involve the use of hazardous and flammable materials, including chemicals and biological materials, and may also produce hazardous waste products. Even if Forte contracts with third parties for the disposal of these materials and waste products, Forte cannot completely eliminate the risk of contamination or injury resulting from these materials. In the event of contamination or injury resulting from the use or disposal of Forte's hazardous materials, Forte could be held liable for any resulting damages, and any liability could exceed Forte's resources. Forte also could incur significant costs associated with civil or criminal fines and penalties for failure to comply with such laws and regulations.

Forte maintains workers' compensation insurance to cover costs and expenses it may incur due to injuries to its employees, but this insurance may not provide adequate coverage against potential liabilities. However, Forte does not maintain insurance for environmental liability or toxic tort claims that may be asserted against it.

In addition, Forte may incur substantial costs in order to comply with current or future environmental, health and safety laws and regulations. Current or future environmental laws and regulations may impair Forte's research, development or production efforts. In addition, failure to comply with these laws and regulations may result in substantial fines, penalties or other sanctions.

U.S. Patent-Term Restoration and Marketing Exclusivity

Depending upon the timing, duration and specifics of FDA approval of any of Forte's product candidates, some of Forte's U.S. patents may be eligible for limited patent term extension under the Drug Price Competition and Patent Term Restoration Act of 1984, commonly referred to as the Hatch-Waxman Amendments. The Hatch-Waxman Amendments permit restoration of the patent term of up to five years as compensation for patent term lost during product development and FDA regulatory review process. Patent-term restoration, however, cannot extend the remaining term of a patent beyond a total of 14 years from the product's approval date. The patent-term restoration period is generally one-half the time between the effective date of an IND and the submission date of a BLA plus the time between the submission date of a BLA and the approval of that application, except that the review period is reduced by any time during which the applicant failed to exercise due diligence. Only one patent applicable to an approved drug is eligible for the extension and the application for the extension must be submitted prior to the expiration of the patent. The U.S. PTO, in consultation with the FDA, reviews and approves the application for any patent term extension or restoration. In the future, Forte may apply for restoration of patent term for Forte's currently owned or licensed patents to add patent life beyond its current expiration date, depending on the expected length of the clinical trials and other factors involved in the filing of the relevant BLA.

An abbreviated approval pathway for biological products shown to be similar to, or interchangeable with, an FDA-licensed reference biological product was created by the Biologics Price Competition and Innovation Act of 2009 ("BPCI Act"). This amendment to the PHSA, in part, attempts to minimize duplicative testing. Biosimilarity, which requires that the biological product be highly similar to the reference product notwithstanding minor differences in clinically inactive components and that there be no clinically meaningful differences between the product and the reference product in terms of safety, purity and potency, can be shown

through analytical studies, animal studies and a clinical trial or trials. Interchangeability requires that a biological product be biosimilar to the reference product and that the product can be expected to produce the same clinical results as the reference product in any given patient and, for products administered multiple times to an individual, that the product and the reference product may be alternated or switched after one has been previously administered without increasing safety risks or risks of diminished efficacy relative to exclusive use of the reference biological product without such alternation or switch.

A reference biological product is granted 12 years of data exclusivity from the time of first licensure of the product, and the FDA will not accept an application for a biosimilar or interchangeable product based on the reference biological product until four years after the date of first licensure of the reference product. "First licensure" typically means the initial date the particular product at issue was licensed in the United States. Date of first licensure does not include the date of licensure of (and a new period of exclusivity is not available for) a biological product if the licensure is for a supplement for the biological product or for a subsequent application by the same sponsor or manufacturer of the biological product (or licensor, predecessor in interest, or other related entity) for a change (not including a modification to the structure of the biological product) that results in a new indication, route of administration, dosing schedule, dosage form, delivery system, delivery device or strength, or for a modification to the structure of the biological product that does not result in a change in safety, purity, or potency.

Pediatric exclusivity is another type of regulatory market exclusivity in the United States. Pediatric exclusivity, if granted, adds six months to existing regulatory exclusivity periods. This six-month exclusivity may be granted based on the voluntary completion of a pediatric trial in accordance with an FDA-issued "Written Request" for such a trial.

Rest of the World Regulation

For other countries outside of the United States, such as the European Union and countries in Eastern Europe, Latin America or Asia, the requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement vary from country to country. Additionally, the clinical trials must be conducted in accordance with GCP requirements and the applicable regulatory requirements and the ethical principles that have their origin in the Declaration of Helsinki.

If Forte fails to comply with applicable foreign regulatory requirements, Forte may be subject to, among other things, fines, suspension or withdrawal of regulatory approvals, product recalls, seizure of products, operating restrictions and criminal prosecution.

Additional Laws and Regulations Governing International Operations

If Forte further expands its operations outside of the United States, Forte must dedicate additional resources to comply with numerous laws and regulations in each jurisdiction in which it plans to operate. The FCPA prohibits any U.S. individual or business from offering, paying, promising to pay, or authorizing payment of money or anything of value, to any person, while knowing that all or a portion of such money or thing of value will be offered, given or promised, directly or indirectly, to any foreign official, political party or candidate to influence the foreign official in his or her official capacity, induce the foreign official to do or omit to do an act in violation of his or her lawful duty, or to secure any improper advantage in order to assist the individual or business in obtaining or retaining business. The FCPA also obligates companies whose securities are listed in the United States to comply with certain accounting provisions requiring the company to maintain books and records that accurately and fairly reflect all transactions of the corporation, including international subsidiaries, and to devise and maintain an adequate system of internal accounting controls.

Compliance with the FCPA is expensive and difficult, particularly in countries in which corruption is a recognized problem. In addition, the FCPA presents particular challenges in the pharmaceutical industry,

because, in many countries, hospitals are owned and operated by the government, and doctors and other hospital employees are considered foreign officials for the purposes of the statute. Certain payments made in connection with clinical trials and other work have been deemed to be improper payments to government officials and have led to FCPA enforcement actions.

Various laws, regulations and executive orders also restrict the use and dissemination outside of the United States, or the sharing with certain non-U.S. nationals, of information classified for national security purposes, as well as certain products and technical data relating to those products. If Forte expands its presence outside of the United States, Forte will need to dedicate additional resources to complying with these laws, and these laws may preclude Forte from developing, manufacturing, or selling certain products and product candidates outside of the United States, which could limit Forte's growth potential and increase its development costs.

The failure to comply with laws governing international business practices may result in substantial civil and criminal penalties and suspension or debarment from government contracting. The SEC also may suspend or bar issuers from trading securities on U.S. exchanges for violations of the FCPA's accounting provisions.

Reimbursement

Sales of Forte's products will depend, in part, on the extent to which Forte's products, if approved, will be covered by third-party payors, such as government health programs, commercial insurers and managed healthcare organizations, as well as the level of reimbursement such that those third-party payors provide for Forte's products. Patients and providers are unlikely to use Forte's products unless coverage is provided and reimbursement is adequate to cover a significant portion of the cost of Forte's products in which Forte's products are used. In the United States, no uniform policy of coverage and reimbursement for drugs or biological products exists, and one payor's determination to provide coverage and adequate reimbursement for a product does not assure that other payors will make a similar determination. Accordingly, decisions regarding the extent of coverage and amount of reimbursement to be provided for any of Forte's products candidates, if approved, will be made on a payor-by-payor basis. As a result, the coverage determination process may be a time-consuming and costly process that will require Forte to provide scientific and clinical support for the use of Forte's products to each payor separately, with no assurance that coverage and adequate reimbursement will be obtained.

The Medicaid Drug Rebate Program requires pharmaceutical manufacturers to enter into and have in effect a national rebate agreement with the Secretary of HHS as a condition for states to receive federal matching funds for the manufacturer's outpatient drugs furnished to Medicaid patients. The ACA made several changes to the Medicaid Drug Rebate Program, including increasing pharmaceutical manufacturers' rebate liability by raising the minimum basic Medicaid rebate on most branded prescription drugs and adding a new rebate calculation for "line extensions" (i.e., new formulations, such as extended release formulations) of solid oral dosage forms of branded products, creating a new method by which rebates owed by are calculated for drugs that are inhaled, infused, instilled, implanted or injected, as well as potentially impacting their rebate liability by modifying the statutory definition of AMP. The ACA also expanded the universe of Medicaid utilization subject to drug rebates by requiring pharmaceutical manufacturers to pay rebates on Medicaid managed care utilization and by enlarging the population potentially eligible for Medicaid drug benefits. Pricing and rebate programs must also comply with the Medicaid rebate requirements of the U.S. Omnibus Budget Reconciliation Act of 1990.

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 ("MMA"), established the Medicare Part D program to provide a voluntary prescription drug benefit to Medicare beneficiaries. Under Part D, Medicare beneficiaries may enroll in prescription drug plans offered by private entities that provide coverage of outpatient prescription drugs. Unlike Medicare Part A and B, Part D coverage is not standardized. While all Medicare drug plans must give at least a standard level of coverage set by Medicare, Part D prescription drug plan sponsors are not required to pay for all covered Part D drugs, and each drug plan can develop its own drug formulary that identifies which drugs it will cover and at what tier or level. However, Part D prescription drug formularies must include drugs within each therapeutic category and class of covered Part D drugs, though not

necessarily all the drugs in each category or class. Any formulary used by a Part D prescription drug plan must be developed and reviewed by a pharmacy and therapeutic committee. Government payment for some of the costs of prescription drugs may increase demand for products for which Forte receives marketing approval. However, any negotiated prices for Forte's products covered by a Part D prescription drug plan likely will be lower than the prices Forte might otherwise obtain. Moreover, while the MMA applies only to drug benefits for Medicare beneficiaries, private payors often follow Medicare coverage policy and payment limitations in setting their own payment rates. Any reduction in payment that results from the MMA may result in a similar reduction in payments from non-governmental payors.

For a drug product to receive federal reimbursement under the Medicaid or Medicare Part B programs or to be sold directly to U.S. government agencies, the manufacturer must extend discounts to entities eligible to participate in the 340B drug pricing program. The required 340B discount on a given product is calculated based on the average manufacturer's price ("AMP"), and Medicaid rebate amounts reported by the manufacturer. As of 2010, the ACA expanded the types of entities eligible to receive discounted 340B pricing, although, under the current state of the law, with the exception of children's hospitals, these newly eligible entities will not be eligible to receive discounted 340B pricing on orphan drugs. In addition, as 340B drug pricing is determined based on AMP and Medicaid rebate data, the revisions to the Medicaid rebate formula and AMP definition described above could cause the required 340B discount to increase. The 340B program imposes ceilings on prices that drug manufacturers can charge for medications sold to certain health care facilities. It is unclear how this decision could affect covered hospitals who might purchase Forte's products in the future and affect the rates Forte may charge such facilities for its approved products. In addition, legislation may be introduced that, if passed, would further expand the 340B program to additional covered entities or would require participating manufacturers to agree to provide 340B discounted pricing on drugs used in an inpatient setting.

As noted above, the marketability of any products for which Forte receives regulatory approval for commercial sale may suffer if the government and other third-party payors fail to provide adequate coverage and reimbursement. An increasing emphasis on cost containment measures in the United States has increased and Forte expects will continue to increase the pressure on pharmaceutical pricing. Coverage policies and third-party reimbursement rates may change at any time. Even if favorable coverage and reimbursement status is attained for one or more products for which Forte receives regulatory approval, less favorable coverage policies and reimbursement rates may be implemented in the future.

These laws, and future state and federal healthcare reform measures may be adopted in the future, any of which may result in additional reductions in Medicare and other healthcare funding and otherwise affect the prices Forte may obtain for any of its product candidates for which Forte may obtain regulatory approval or the frequency with which any such product candidate is prescribed or used.

In addition, in most foreign countries, the proposed pricing for a drug must be approved before it may be lawfully marketed. The requirements governing drug pricing and reimbursement vary widely from country to country. For example, the EU provides options for its Member States to restrict the range of medicinal products for which their national health insurance systems provide reimbursement and to control the prices of medicinal products for human use. Reference pricing used by various EU Member States and parallel distribution, or arbitrage between low-priced and high-priced member states, can further reduce prices. A member state may approve a specific price for the medicinal product or it may instead adopt a system of direct or indirect controls on the profitability of the company placing the medicinal product on the market. In some countries, Forte may be required to conduct a clinical study or other studies that compare the cost-effectiveness of any of Forte's product candidates to other available therapies in order to obtain or maintain reimbursement or pricing approval. There can be no assurance that any country that has price controls or reimbursement limitations for pharmaceutical products will allow favorable reimbursement and pricing arrangements for any of Forte's products. Historically, products launched in the EU do not follow price structures of the United States and, generally, prices tend to be significantly lower. Publication of discounts by third-party payors or authorities may lead to further pressure on the prices or reimbursement levels within the country of publication and other countries.

Corporate History

Forte was incorporated under the laws of the State of Delaware in May 2017.

Competition

The biotechnology and pharmaceutical industries are characterized by rapidly advancing technologies, strong competition and an emphasis on proprietary products. While Forte believes that its technology, knowledge, experience and scientific resources provide it with competitive advantages, Forte faces substantial competition from many different sources, including larger pharmaceutical companies with more resources. Specialty biotechnology companies, academic research institutions, governmental agencies, as well as public and private institutions are also potential sources of competitive products and technologies. Forte believes that the key competitive factors affecting the success of any of its product candidates will include efficacy, safety profile, method of administration, cost, level of promotional activity and intellectual property protection.

Although there are currently many bacterial product candidates in development by companies that target the microbiome (e.g., Seres Therapeutics, Inc., Synlogic, Inc. and Evelo Biosciences, Inc.), Forte believes that it has a differentiated approach and does not consider itself to be in competition with these bacterial microbiome approaches.

Although Forte's novel chemistry approach is unique from most other existing or investigational therapies across the disease areas where its development is focused, Forte will need to compete with all currently or imminently available therapies in these areas. Forte is aware of several marketed and investigational products in its leading disease areas, including but not limited to:

- Dupixent (Regeneron/Sanofi)
- Eucrisa (Pfizer Inc.)
- JAK inhibitors (various)

Employees

As of December 31, 2019, Forte had one employee, who was a full-time employee and 11 consultants. Forte has recruited additional employees since December 31, 2019, including the conversion of existing consultants to full-time employees. None of Forte's employees are represented by labor unions or covered by collective bargaining agreements. Forte considers its relationship with its employees to be good.

Facilities

Forte's corporate headquarters are located in Torrance, California, where it currently leases office space on a monthly basis. Forte believes that this space is adequate for Forte's present and planned future operations.

Legal proceedings

As of the date of this proxy statement/prospectus/information statement, Forte is not subject to any material legal proceedings.

TOCAGEN MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

You should read the following discussion and analysis of Tocagen's financial condition and results of operations together with Tocagen's financial statements and related notes appearing elsewhere in this proxy statement/prospectus/information statement. This discussion and analysis contains forward-looking statements based upon current expectations that involve risks and uncertainties. Tocagen's actual results may differ materially from those anticipated in these forward-looking statements as a result of various factors, including those discussed in the section entitled "Risk Factors" and in other parts of this proxy statement/prospectus/information statement. Please also see the section entitled "Cautionary Note Concerning Forward-Looking Statements."

Overview

Tocagen is a clinical-stage, cancer-selective gene therapy company focused on developing broadly-applicable product candidates designed to activate a patient's immune system against their own cancer. Tocagen's cancer-selective gene therapy platform is built on retroviral replicating vectors, which are designed to selectively deliver therapeutic genes into the DNA of cancer cells. Tocagen's gene therapy approach is designed to fight cancer through immunotherapeutic mechanisms of action without the autoimmune toxicities commonly experienced with other immunotherapies.

Tocagen had been developing Toca 511 (vocimagene amiretrorepvec) & Toca FC (extended-release flucytosine), initially for the treatment of recurrent HGG, a brain cancer with limited treatment options, low survival rates and, therefore, a significant unmet medical need. Tocagen conducted a randomized, controlled Phase 3 clinical trial (Toca 5) of Toca 511 & Toca FC in patients with recurrent HGG, which was designed to serve as a registrational trial. At the final analysis, the trial missed the primary endpoint of overall survival compared to the standard of care treatment (11.1 months median compared to 12.2 months, HR=1.06, p=0.6154). In addition, all secondary endpoints showed no meaningful difference between the arms of the trial.

Tocagen does not have any products approved for sale and have not generated any revenue from product sales. Since Tocagen's inception in August 2007, it has devoted substantially all of its efforts to developing its gene therapy platform and Toca 511 & Toca FC. Tocagen has never been profitable and has incurred significant operating losses in each year since its inception. Tocagen had an accumulated deficit of $279.4 million as of December 31, 2019. Substantially all of Tocagen's net losses resulted from costs incurred in connection with its research, preclinical, clinical, product, regulatory and business development activities, as well as raising capital and building its infrastructure. Tocagen does not have any commitments for future external funding.

Following the announcement of the Toca 5 trial results, the Tocagen Board commenced a process of evaluating strategic alternatives to maximize stockholder value. To assist with this process, Tocagen's board of directors engaged a financial advisory firm to help explore its available strategic alternatives, including possible mergers and business combinations, a sale of part or all of Tocagen's assets, and collaboration and licensing arrangements. On February 19, 2020, Tocagen and Forte announced the signing of the Merger Agreement. Upon the terms and subject to the satisfaction of the conditions described in the Merger Agreement, including approval of the transaction by Tocagen's stockholders, a wholly-owned subsidiary of Tocagen will be merged with and into Forte, with Forte surviving the Merger as a wholly-owned subsidiary of Tocagen.

Although Tocagen has entered into the Merger Agreement and intends to consummate the Merger, there is no assurance that it will be able to successfully consummate the Merger on a timely basis, or at all. If, for any reason, the proposed Merger is not completed, Tocagen will reconsider its strategic alternatives and could pursue one or more of the following courses of action:

- ***Pursue potential collaborative, partnering or other strategic arrangements for Tocagen's assets, including a sale or other divestiture of its assets.*** Tocagen has discontinued further development of its programs, including Toca 511 & Toca FC, and does not currently have any plans to resume

development of any of its development programs. Tocagen continues its efforts to seek potential collaborative, partnering or other strategic arrangements for its programs, including a sale or other divestiture of its assets. Tocagen may be unable to partner or divest its assets in a timely manner, or at all, and therefore may not receive any return on Tocagen's investment in its program assets, including Toca 511 & Toca FC. If the combined company does not have sufficient funds, the combined company will not be able to advance the development of its product candidates or otherwise bring its product candidates to market and generate product revenues.

- ***Pursue another strategic transaction like the Merger.*** The Tocagen Board may elect to pursue an alternative strategy, one of which may be a strategic transaction similar to the Merger.
- ***Dissolve and liquidate Tocagen's assets.*** If, for any reason, the Merger is not consummated and Tocagen is unable to identify and complete an alternative strategic transaction like the Merger or potential collaborative, partnering or other strategic arrangements for its assets, or to continue to operate its business due to its inability to raise additional funding, Tocagen may be required to dissolve and liquidate its assets. In such case, Tocagen would be required to pay all of its debts and contractual obligations, and to set aside certain reserves for potential future claims, and there can be no assurances as to the amount or timing of available cash left to distribute to Tocagen's stockholders after paying its debts and other obligations and setting aside funds for reserves.

To conserve Tocagen's cash resources, it has substantially reduced its workforce and has wound down and suspended its research and development activities. Tocagen is continuing to provide study drug for patients who remain on therapy via investigator sponsored trials (principal investigator assumes responsibility) through single patient INDs and is continuing its day-to-day business operations including the limited remaining activities required to wrap up the Toca 5 trial.

ATM Facility

In November 2018, Tocagen entered into an Equity Distribution Agreement with Citigroup Global Markets Inc. ("Citigroup"), pursuant to which it may sell and issue shares of Tocagen Common Stock having an aggregate offering price of up to $30.0 million from time to time through Citigroup, as its sales agent (the "ATM facility"). As of December 31, 2019, Tocagen sold 760,089 shares of Tocagen Common Stock under the ATM facility and received net proceeds of $7.7 million. Although Tocagen has approximately $23.3 million of shares of Tocagen Common Stock available for sale under this agreement, given its currently-depressed stock price, the ATM Facility is not expected to be a practical source of liquidity for Tocagen at this time. Further, given Tocagen's currently-depressed stock price, it is significantly limited in its ability to sell shares of Tocagen Common Stock under the ATM Facility since the issuance and sale of Tocagen Common Stock under the ATM Facility, if it occurs, would be effected under a registration statement on Form S-3 that Tocagen filed with the Securities and Exchange Commission, and in accordance with the rules governing those registration statements, Tocagen generally can only sell shares of Tocagen Common Stock under that registration statement in an amount not to exceed one-third of its public float, which limitation for all practical purposes precludes Tocagen's ability to obtain any meaningful funding through the ATM Facility at this time.

Public Offering

In December 2018, Tocagen completed a public offering in which it sold an aggregate of 3,000,000 shares of Tocagen Common Stock at a price of $10.00 per share. Net proceeds from the public offering, after deducting underwriting discounts, commissions and offering expenses, were approximately $28.0 million.

Financial Operations Overview

Revenue

Tocagen currently has no products approved for sale and has not generated any revenues from the sale of products. Tocagen has not submitted any product candidate for regulatory approval.

Tocagen expects that any future revenue it generates will fluctuate from quarter to quarter and year to year as a result of the timing and amount of license fees, milestone and other payments, and the amount and timing of payments that it receives upon the sale of its products, to the extent any are successfully commercialized. If Tocagen fails to complete the development of its product candidates in a timely manner or obtain regulatory approval of them, its ability to generate future revenue, and its results of operations and financial position, would be materially adversely affected.

Research and Development Expenses

Research and development expenses consist primarily of salaries and related expenses for personnel, including non-cash stock-based compensation costs, preclinical costs, clinical trial costs, costs related to acquiring and manufacturing clinical trial materials, contract services, facilities costs, overhead costs and depreciation. These activities also include research and development related to Tocagen's gene therapy platform development. All research and development costs are expensed as incurred.

The following table sets forth Tocagen's research and development expense by project for the years ended December 31, 2019, 2018 and 2017 (in thousands):

	Years Ended December 31,		
	2019	2018	2017
Toca 511 & Toca FC	$43,252	$46,872	$27,471
Vector technology	2,047	4,208	1,642
Total	$45,299	$51,080	$29,113

General and Administrative Expenses

General and administrative expenses consist primarily of salaries and related expenses for personnel, including non-cash stock-based compensation costs and travel expenses for Tocagen's employees in executive, operational, finance and business development functions. Other general and administrative expenses include facility-related costs, consulting fees, information technology, insurance, professional fees for accounting and legal services, expenses associated with obtaining and maintaining patents, expenses related to commercial readiness activities and costs associated with being a public company.

Tocagen anticipates continued expenses related to audit, legal, regulatory and tax-related services associated with maintaining compliance with exchange listing and SEC requirements, director and officer insurance premiums and costs associated with being a public company.

Interest Income

Interest income consists primarily of interest income earned on cash, cash equivalents and marketable securities.

Interest Expense

Interest expense consists primarily of stated interest and the amortization of related debt issuance costs incurred on the outstanding principal amount of Tocagen's borrowings under its notes payable.

Income tax expense

Income tax expense consists primarily of foreign income tax expense incurred related to the ApolloBio License Agreement.

Loss on disposal of assets

Loss on disposal of assets consists primarily of fixed assets which were either sold or disposed of as part of Tocagen's reduction in lab and office space.

Gain on lease modification

Gain on lease modification consists of adjustments made to Tocagen's right-of-use asset and lease liability related to its First Amendment to its Lease Agreement.

Critical Accounting Policies and Significant Judgments and Estimates

Tocagen's management's discussion and analysis of its financial condition and results of operations is based on Tocagen's financial statements which it has prepared in accordance with generally accepted accounting principles in the United States. The preparation of these financial statements requires Tocagen to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates.

While Tocagen's significant accounting policies are described in more detail in the Note 2 to its financial statements appearing at the end of this proxy statement/prospectus/information statement, Tocagen believes the following accounting policies to be most critical for fully understanding and evaluating its financial condition and results of operations.

Revenue Recognition

Revenue generally consists of license revenue with upfront payments and development milestones considered probable of achievement.

Revenue is recognized when control of the promised goods or services is transferred to Tocagen's customers in an amount that reflects the consideration it expects to receive from customers in exchange for those goods and services. This process involves identifying the contract with a customer, determining the performance obligations in the contract, determining the transaction price, allocating the contract price to the distinct performance obligations in the contract, and recognizing revenue when or as Tocagen satisfies the performance obligation(s).

At contract inception, Tocagen assesses the goods and services promised within each contract and assesses whether each promised good or service is distinct and determine whether those are performance obligations. A performance obligation is considered distinct from other obligations in a contract when it provides a benefit to the customer either on its own or together with other resources that are readily available to the customer and is separately identified in the contract. Tocagen considers factors such as the research, manufacturing and commercialization capabilities of the collaboration partner and the availability of the associated expertise in the general marketplace. Tocagen considers a performance obligation satisfied once it has transferred control of a good or service to the customer, meaning the customer has the ability to use and obtain the benefit of the good or service. Tocagen recognizes revenue for satisfied performance obligations only when it determines there are no uncertainties regarding payment terms or transfer of control.

Collaborative Arrangements

Tocagen enters into collaborative arrangements with partners that may include payment to it of one or more of the following: (i) license fees; (ii) payments related to the achievement of developmental, regulatory, or commercial milestones; and (iii) royalties on net sales of licensed products. Where a portion of non-refundable upfront fees or other payments received are allocated to continuing performance obligations under the terms of a collaborative arrangement, they are recorded as contract liabilities and recognized as revenue when (or as) the underlying performance obligation is satisfied.

As part of the accounting for these arrangements, Tocagen must develop estimates and assumptions that require judgment to determine the underlying stand-alone selling price for each performance obligation which determines how the transaction price is allocated among the performance obligation(s). The stand-alone selling price may include items such as forecasted revenues, development timelines, discount rates, and probabilities of technical and regulatory success. Tocagen evaluate each performance obligation to determine if it can be satisfied at a point in time or over time. In addition, variable consideration must be evaluated to determine if it is constrained and, therefore, excluded from the transaction price.

License Fees

If a license to Tocagen's intellectual property is determined to be distinct from the other performance obligations identified in the arrangement, it recognizes revenue from non-refundable, upfront fees allocated to the license when the license is transferred to the licensee and the licensee is able to use and benefit from the license. For licenses that are bundled with other promises, Tocagen utilizes judgment to assess the nature of the combined performance obligation to determine whether the combined performance obligation is satisfied over time or at a point in time and, if over time, the appropriate method of measuring progress for purposes of recognizing revenue. Tocagen evaluates the measure of progress each reporting period and, if necessary, adjusts the measure of performance and related revenue recognition. Any such adjustments are recorded on a cumulative catch-up basis, which would affect license, collaboration or other revenues and earnings in the period of adjustment.

Milestone Payments

At the inception of each arrangement that includes milestone payments (variable consideration), Tocagen evaluates whether the milestones are considered probable of being reached and estimates of the amount to be included in the transaction price. If it is probable that a milestone event would occur at the inception of the arrangement, the associated milestone value is included in the transaction price. Milestone payments that are not within Tocagen's control, such as regulatory approvals, are generally not considered probable of being achieved until those approvals are received. The transaction price is then allocated to each performance obligation on a relative stand-alone selling price basis, for which Tocagen recognizes revenue as or when the performance obligations under the contract are satisfied. At the end of each reporting period, Tocagen evaluates the probability of achievement of such milestones and any related constraint(s), and if necessary, may adjust its estimate of the overall transaction price. Any such adjustments are recorded on a cumulative catch-up basis, which would affect license, collaboration or other revenues and earnings in the period of adjustment.

Royalties

For arrangements that include sales-based royalties, including milestone payments based on the level of sales, and for which the license is deemed to be the predominant item to which the royalties relate, Tocagen recognizes revenue at the later of (i) when the related sales occur, or (ii) when the performance obligation to which some or all of the royalty has been allocated has been satisfied (or partially satisfied). To date, Tocagen has not recognized any royalty revenue resulting from collaborative arrangements.

Clinical Trial Accruals

Expenses related to clinical studies are based on estimates of the services received and efforts expended pursuant to Tocagen's contract arrangements. The financial terms of these agreements are subject to negotiation, vary from contract to contract and may result in uneven payment flows. There may be instances in which payments made to Tocagen's service providers will temporarily exceed the level of services provided and result in a prepayment of the clinical expense. Payments under some of these contracts depend on factors such as the successful enrollment of patients, site initiation and the completion of clinical milestones. Tocagen makes estimates of its accrued expenses as of each balance sheet date in its financial statements based on facts and circumstances known at that time. In accruing service fees, Tocagen estimates the time period over which

services will be performed and the level of effort to be expended in each period. If the actual timing of the performance of services or the level of effort varies from its estimate, Tocagen adjusts the accrual or prepaid expense balance accordingly. Historically, Tocagen's estimated accrued liabilities have materially approximated actual expense incurred.

Recent Accounting Pronouncements

Tocagen has reviewed all recently issued standards and has determined that other than as disclosed in Note 2 to its financial statements included in this proxy statement/prospectus/information statement, such standards will not have a material impact on its financial statements or do not otherwise apply to its operations.

Results of Operations

Comparison of the Years Ended December 31, 2019 and 2018

The following table summarizes Tocagen's results of operations for the years ended December 31, 2019 and 2018 (in thousands):

	Years Ended December 31,		Increase (Decrease)
	2019	2018	
License revenue	$ 36	$18,036	$ (18,000)
Research and development expenses	45,299	51,080	(5,781)
General and administrative expenses	16,248	12,809	3,439
Interest income	1,564	1,534	30
Interest expense	(3,820)	(2,930)	(890)
Loss on disposal of assets	(1,187)	(7)	(1,180)
Gain on lease modification	1,439	—	1,439
Income tax expense	1	1,699	(1,698)

License revenue License revenue was less than $0.1 million for the year ended December 31, 2019 as compared to $18.0 for the year ended December 31, 2018, a decrease of $18.0 million. Under the ApolloBio License Agreement, Tocagen recognized a $16.0 million upfront payment and a $2.0 million development milestone payment for the year ended December 31, 2018.

Research and development expenses Research and development expenses were $45.3 million for the year ended December 31, 2019, as compared to $51.1 million for the year ended December 31, 2018. The decrease of $5.8 million was primarily due to a decrease in clinical trial related costs related to Tocagen's Toca 5 trial, which completed enrollment in 2018 and final analysis in October 2019. Tocagen recorded $0.8 million of severance related charges in connection with the company's restructuring in 2019.

General and administrative expenses General and administrative expenses were $16.2 million for the year ended December 31, 2019, as compared to $12.8 million for the year ended December 31, 2018. The increase of $3.4 million was primarily due to an increase in commercial third party costs in anticipation of a potential product launch related to Tocagen's Phase 3 clinical trial and an increase in personnel related costs, including non-cash stock based compensation. Tocagen recorded $0.1 million of severance related charges in connection with the company's restructuring in 2019.

Interest income Interest income was $1.6 million for the year ended December 31, 2019, as compared to $1.5 million for the year ended December 31, 2018. Cash is invested and earning interest dependent on Tocagen's liquidity needs.

Interest expense Interest expense was $3.8 million for the year ended December 31, 2019, as compared to $2.9 million for the year ended December 31, 2018. The increase of $0.9 million year over year was due to a higher loan balance throughout 2019 compared to 2018.

Loss on disposal of assets Loss on disposal of assets was $1.2 million for the year ended December 31, 2019, as compared to less than $0.1 million for the year ended December 31, 2018. The 2019 activity was due to equipment sales in connection with the reduction in lab and office space in December 2019.

Gain on lease modification Gain on lease modification was $1.4 million for the year ended December 31, 2019, as compared to zero for the year ended December 31, 2018. The 2019 gain was due to the reduction in lab and office lease commitments in December 2019 in connection with Tocagen's restructuring.

Income tax expense Income tax expense of $1.7 million recorded for the year ended December 31, 2018 was due to foreign income tax expense paid in conjunction with the ApolloBio License Agreement.

Comparison of the Years Ended December 31, 2018 and 2017

The following table summarizes Tocagen's results of operations for the years ended December 31, 2018 and 2017 (in thousands):

	Years Ended December 31,		Increase (Decrease)
	2018	2017	
License revenue	$18,036	$ 41	$ 17,995
Research and development expenses	51,080	29,113	21,967
General and administrative expenses	12,809	8,556	4,253
Interest income	1,534	595	939
Interest expense	(2,930)	(1,932)	(998)
Income tax expense	1,699	1	1,698

License revenue License revenue was $18.0 million for the year ended December 31, 2018 as compared to $41,000 for the year ended December 31, 2017, an increase of $18.0 million. Under the ApolloBio License Agreement, Tocagen recognized a $16.0 million upfront payment and a $2.0 million development milestone payment for the year ended December 31, 2018.

Research and development expenses Research and development expenses were $51.1 million for the year ended December 31, 2018, as compared to $29.1 million for the year ended December 31, 2017. The increase of $22.0 million was primarily due to increases in manufacturing and clinical trial costs of $15.3 million to support Tocagen's Phase 3 clinical trial which completed enrollment in September 2018 and increased personnel costs, including non-cash stock-based compensation of $3.0 million due to an increase in headcount.

General and administrative expenses General and administrative expenses were $12.8 million for the year ended December 31, 2018, as compared to $8.6 million for the year ended December 31, 2017. The increase of $4.3 million was primarily due to increased personnel costs, including non-cash stock based compensation, of $1.0 million, a $1.1 million non-income tax expense related to the ApolloBio License Agreement and an increase in facility related expense due to Tocagen's lab and office space lease which was signed in 2018 and increases in external service costs associated with the growth of Tocagen's business and other costs associated with general business activities.

Interest income Interest income was $1.5 million for the year ended December 31, 2018, as compared to $0.6 million for the year ended December 31, 2017. The increase of $0.9 million was primarily due to Tocagen's higher average cash balances earning interest at higher rates during 2018 compared to 2017.

Interest expense Interest expense was $2.9 million for the year ended December 31, 2018, as compared to $1.9 million for the year ended December 31, 2017 related to Tocagen's outstanding debt. Tocagen's debt principal balance and exit fees increased in 2018 associated with refinancing Tocagen's debt agreements.

Income tax expense Income tax expense of $1.7 million recorded for the year ended December 31, 2018 was due to foreign income tax expense paid in conjunction with the ApolloBio License Agreement.

Liquidity and Capital Resources

Tocagen has incurred significant losses and cumulative negative cash flows from operations since its inception. As of December 31, 2019, Tocagen had an accumulated deficit of $279.4 million and its anticipates that it will continue to incur operating losses for the foreseeable future.

Based on Tocagen's operating plans, cash, cash equivalents and marketable securities may not be sufficient to fund operations for the next 12 months. As a result, there is substantial doubt about Tocagen's ability to continue as a going concern. All amounts due under the Term Loans (as defined below) have been classified as a current liability as of December 31, 2019 due to the assessment that a material adverse change clause under the Term Loans is not within Tocagen's control. On October 31, 2019, Tocagen entered into an amendment (the "Second Amendment"), to its Loan Agreement and made a prepayment of $23.3 million, which amount was used to prepay (i) a portion equal to $21.5 million of the outstanding principal of the Term Loans plus all accrued and unpaid interest thereon through the prepayment date, (ii) prorated portion of the final payment with respect to the portion of such Term Loans being prepaid, plus (iii) all outstanding lenders' expenses as of the date of the Second Amendment. On April 10, 2020, Tocagen made a prepayment of $4.8 million under the Loan Agreement, which amount was used to prepay (i) the remaining outstanding principal of the Term Loans of $4.4 million, plus all accrued and unpaid interest thereon, (ii) the remaining final payment with respect to the Term Loans and (iii) all outstanding lenders' expenses as of the date of the Second Amendment. In connection with our payment, the Loan Agreement was terminated and the Lenders consented to the release of all liens under the Loan Agreement on our assets, including intellectual property.

If Tocagen is unable to maintain sufficient financial resources, its business, financial condition and results of operations will be materially and adversely affected.

Since inception through December 31, 2019, Tocagen has funded its operations primarily through the private placement of its convertible preferred stock, its initial and follow-on public offerings of Tocagen Common Stock, term loans, the issuance of its convertible promissory notes payable, and upfront and milestone payments under its license and collaboration agreements.

The loans under the Loan Agreement were secured by substantially all of Tocagen's assets other than its intellectual property (except rights to payment from the sale, licensing of disposition of such intellectual property). As of December 31, 2019, there was $5.0 million principal outstanding under the Loan Agreement. Balances under the Loan Agreement accrued interest at the prime rate plus 3.75%, subject to a floor of 8.50%. The interest rate as of December 31, 2019 was 9.00%. The loans under the Loan Agreement mature in December 2022 with interest only payments through January 1, 2020 followed by 36 monthly payments of principal and interest. The Loan Agreement contained customary conditions of borrowing, events of default and covenants, including covenants that restrict Tocagen's ability to dispose of assets, merge with or acquire other entities, incur indebtedness and make distributions to holders of its capital stock. Should an event of default occur, including the occurrence of a material adverse change, Tocagen could be liable for immediate repayment of all obligations under the Loan Agreement.

As of December 31, 2019, Tocagen had $21.8 million in cash, cash equivalents and marketable securities. Tocagen's available cash and marketable securities are invested in accordance with its investment policy, primarily with a view to preserve principal and maintain liquidity.

Cash Flows

The following table sets forth the primary sources and uses of cash for each of the periods set forth below (in thousands):

	Years Ended December 31,		
	2019	2018	2017
Net cash provided by (used in):			
Operating activities	$(59,238)	$(34,469)	$(31,133)
Investing activities	42,319	(4,190)	(27,707)
Financing activities	(14,908)	43,539	89,263
Net (decrease) increase in cash and cash equivalents	$(31,827)	$ 4,880	$ 30,423

Operating Activities Net cash used in operating activities was $59.2 million for the year ended December 31, 2019, and consisted primarily of a net loss of $63.5 million adjusted for a net decrease in cash from operating assets and liabilities of $6.3 million and a gain on lease modification of $1.4 million, offset by noncash stock-based compensation expense of $8.1 million, depreciation expense of $0.8 million, noncash interest expense of $1.7 million and loss on disposal of assets of $1.2 million. The $6.3 million net decrease in cash from operating assets and liabilities is due primarily to a $9.0 million decrease in Tocagen's accounts payable and accrued liabilities offset by a $2.5 million decrease in prepaid expenses and other assets resulting mainly from shut down activities related to Tocagen's clinical trial.

Net cash used in operating activities was $34.5 million for the year ended December 31, 2018, and consisted primarily of a net loss of $49.0 million adjusted for a net increase in cash from operating assets and liabilities of $6.1 million, noncash stock-based compensation expense of $6.9 million, depreciation expense of $0.6 million and noncash interest expense of $1.2 million. The $6.1 million net increase in cash from operating assets and liabilities is due primarily to a $5.4 million increase in Tocagen's accounts payable and accrued liabilities resulting mainly from increases in clinical and manufacturing costs incurred to support its clinical trials and increases in its deferred rent of $1.0 million, offset by a $0.2 million increase in prepaid expenses related to its clinical trial costs.

Net cash used in operating activities was $31.1 million for the year ended December 31, 2017, and consisted primarily of a net loss of $38.9 million adjusted for a net increase in cash from operating assets and liabilities of $2.5 million, noncash stock-based compensation expense of $4.5 million, depreciation expense of $0.3 million and noncash interest expense of $0.6 million. The $2.5 million net increase in cash from operating assets and liabilities is due primarily to a $3.3 million increase in Tocagen's accounts payable and accrued liabilities resulting mainly from increases in clinical and manufacturing costs incurred to support Tocagen's clinical trials and increased accrued payroll and related liabilities, primarily offset by a $0.7 million increase in prepaid expenses related to its clinical trial costs.

Investing Activities Net cash provided by investing activities for the year ended December 31, 2019 was $42.3 million and primarily consisted of proceeds from the maturity of marketable securities of $93.5 million offset by purchases of marketable securities of $51.2 million and the purchase of property and equipment of $0.4 million. As there is substantial doubt about Tocagen's ability to continue as a going concern, it is currently not reinvesting maturities of marketable securities.

Net cash used in investing activities for the year ended December 31, 2018 was $4.2 million and consisted of purchases of marketable securities of $70.8 million and purchases of property and equipment of $2.0 million, offset by sales and maturities of marketable securities of $68.5 million.

Net cash used in investing activities for the year ended December 31, 2017 was $27.7 million and consisted primarily of purchases of marketable securities of $70.8 million and purchases of property and equipment of $0.7 million offset by proceeds received from the sale and maturities of marketable securities of $43.7 million.

Financing activities Net cash used in financing activities for the year ended December 31, 2019 was $14.9 million and consisted primarily of $23.2 million in principal payments related to the Loan Agreement offset by $7.7 million in net proceeds from the issuance of shares of Tocagen Common Stock under Tocagen's ATM facility.

Net cash provided by financing activities for the year ended December 31, 2018 was $43.5 million and consisted primarily of net proceeds from the issuance of notes payable of $26.3 million in May, upon refinancing Tocagen's original debt agreement and net proceeds received from the sale of Tocagen Common Stock of $28.0 million ($0.2 million of offering costs accrued as of December 31, 2018), offset by $11.6 million in principal and extinguishment payments on Tocagen's original notes payable in conjunction with its May 2018 refinancing.

Net cash provided by financing activities for the year ended December 31, 2017 was $89.3 million and consisted of Tocagen's initial public offering of common stock of $88.6 million and $7.3 million from the issuance of convertible promissory notes payable and convertible promissory note subscriptions, offset by $7.2 million in principal payments on Tocagen's notes payable.

Funding Requirements

Tocagen's primary uses of capital are compensation and related expenses for personnel, third-party clinical research and development services, and general and administrative expenses. Based on Tocagen's operating plans, cash, cash equivalents and marketable securities may not be sufficient to fund operations for the next 12 months. As a result, there is substantial doubt about Tocagen's ability to continue as a going concern. All amounts due under the Term Loans have been classified as a current liability as of December 31, 2019 due to the assessment that a material adverse change clause under the Term Loans is not within Tocagen's control. On October 31, 2019, Tocagen entered into the Second Amendment and made a prepayment of $23.3 million, which amount was used to prepay (i) a portion equal to $21.5 million of the outstanding principal of the Term Loans plus all accrued and unpaid interest thereon through the prepayment date, (ii) prorated portion of the final payment with respect to the portion of such Term Loans being prepaid, plus (iii) all outstanding lenders' expenses as of the date of the Second Amendment. Tocagen has not been notified of an event of default by the lender as of the date of the filing of this proxy statement/prospectus/information statement.

If, for any reason, the Merger is not consummated and Tocagen is unable to identify and complete an alternative strategic transaction like the Merger or potential collaborative, partnering or other strategic arrangements for its assets, or to continue to operate its business due to its inability to raise additional funding, it may be required to dissolve and liquidate its assets. In such case, Tocagen would be required to pay all of its debts and contractual obligations, and to set aside certain reserves for potential future claims, and there can be no assurances as to the amount or timing of available cash left to distribute to Tocagen's stockholders after paying its debts and other obligations and setting aside funds for reserves.

Off-Balance Sheet Arrangements

Tocagen did not have during the periods presented, and it does not currently have, any off-balance sheet arrangements, as defined in the rules and regulations of the SEC.

Contractual Obligations and Commitments

The following table summarizes Tocagen's contractual obligations and commitments as of December 31, 2019 that will affect its future liquidity (in thousands):

	Total	2020 <1 Year	2021-2022 2-3 Years	2023-2024 4-5 Years	> 5 Years
Notes payable	$ 5,398	$ 1,667	$ 3,731	$ —	$ —
Operating lease obligation	6,310	882	1,858	1,990	1,580
Total	$ 11,708	$ 2,549	$ 5,589	$ 1,990	$ 1,580

Tocagen also has obligations under license, collaboration and various grant agreements to make future payments to third parties that become due and payable on the achievement of certain commercial milestones. Tocagen has not included these commitments on its balance sheet or in the table above because the achievement and timing of these events is not fixed and determinable. These commitments are listed as follows:

- Pursuant to the technology license agreement with the USC, Tocagen is obligated to pay an annual royalty to USC starting in the second full calendar year when the net sales of products using the technology covered by the agreement reach a mid-seven-digit dollar range and until such time that the last valid claim of the patents covering Tocagen's products expires. Tocagen is subject to pay interest if and when it becomes delinquent in its royalty payments.
- Pursuant to the collaborative agreement with Siemens, Tocagen is obligated to pay Siemens a royalty amount up to the mid-nine-digit dollar range per year on its brain cancer product sales in the first five years of such commercial sales.
- Pursuant to the agreement for a grant Tocagen received from Accelerate Brain Cancer Cure, Inc. ("ABC2"), Tocagen is obligated to pay an amount up to a maximum of $0.2 million to ABC2 if and when the net sales of its initial product candidate reach a total of $5.0 million within 10 years of the grant date. In addition, the ABC2 grant includes a conversion option whereby the payment amount may be converted, at Tocagen's option, to common stock under certain circumstances.
- Pursuant to the agreement for a grant Tocagen received from the American Brain Tumor Association ("ABTA"), it is obligated to pay an amount up to a maximum of $0.2 million to ABTA if and when the net sales of Tocagen's initial product candidate reach a total of $5.0 million within 10 years of the ABTA grant date.

Tocagen enters into contracts in the ordinary course of business with clinical sites for the conduct of clinical trials, service providers for product manufacture and preclinical research studies, professional consultants for expert advice and other vendors for laboratory and research supplies and services. These contracts generally provide for termination on notice, and therefore are cancelable contracts and not included in the table of contractual obligations and commitments. In addition, these contracts have indemnification clause whereby Tocagen indemnifies, defends, holds harmless and agrees to reimburse the indemnified party for losses suffered or incurred by third party claims arising out of the indemnified party's performance of service. Tocagen has not incurred costs to defend lawsuits or settle claims related to these indemnification clauses.

FORTE MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis of financial condition and results of operations should be read together with the consolidated financial statements of Forte and accompanying notes appearing elsewhere in this proxy statement/prospectus/information statement. This discussion of the financial condition and results of operations of Forte contains certain statements that are not strictly historical and are "forward-looking" statements within the meaning of the Private Securities Litigation Reform Act of 1995 and involve a high degree of risk and uncertainty. Actual results may differ materially from those projected in the forward-looking statements due to other risks and uncertainties that exist in Forte's operations, development efforts and business environment, including those set forth in the section entitled "Risk Factors—Risks Related to Forte" beginning on page 44 of this proxy statement/prospectus/information statement, the other risks and uncertainties described in the section entitled "Risk Factors" beginning on page 26 of this proxy statement/prospectus/information statement and the other risks and uncertainties described elsewhere in this proxy statement/prospectus/information statement. All forward-looking statements included in this proxy statement/prospectus/information statement are based on information available to Forte as of the date hereof, and Forte assumes no obligation to update any such forward-looking statement.

Overview

Forte is a clinical-stage biopharmaceutical company focused on dermatology. Forte's lead product, FB-401, is a live biotherapeutic for the treatment of inflammatory skin disease developed in collaboration with the NIH, and the NIAID. The skin is a complex barrier organ characterized by complex interactions between microbial communities and host tissue via signaling provided by the innate and the adaptive immune systems. Exposure to various endogenous and exogenous factors impact the system balance potentially leading to inflammatory skin conditions comprising infections, allergies or autoimmune diseases. Researchers in microbiology and dermatology have identified and characterized the microorganisms present on the skin to evaluate the bacterial contribution to skin health and dermatological conditions.

Forte is developing a new approach to treating inflammatory skin disease using a topical live biotherapeutic, FB-401. FB-401, consists of three therapeutic strains of a commensal gram-negative bacteria, *Roseomonas mucosa* that were specifically selected for their impact on key parameters of inflammatory skin disease. Forte has extensive preclinical and mechanism of action data demonstrating that FB-401 improves atopic dermatitis disease parameters by driving tissue repair and anti-inflammation as well as suppressing potentially harmful bacteria like *S. aureus*. Specifically, Forte believes that FB-401:

- drives immune pathways that are defective;
- suppresses *Staphylococcus aureus* growth; and
- improves skin barrier function.

To date, Forte has completed a Phase 1/2a study, including both adults and pediatrics, demonstrating significant reduction in atopic dermatitis disease and pruritus, as well as control of *S. aureus* while tapering/eliminating steroid use. Forte is currently planning to initiate a Phase 2 clinical trial in mid-2020.

DHHS License

In December 2017, Forte entered into an exclusive license agreement with DHHS. Under the agreement, the DHHS granted Forte an exclusive, sublicensable, worldwide license to certain patent rights under which Forte may develop and commercialize pharmaceutical and biological compositions comprising Gram-negative bacteria for the topical treatment of dermatological diseases and conditions. Under the DHHS License, Forte is obligated

to meet certain development benchmarks within certain time periods. If Forte is unable to meet any of these development benchmarks, the DHHS could terminate the license. In addition, the DHHS may terminate or modify the DHHS License in the event of a material breach or upon certain insolvency events that remain uncured following the date that is 90 days following written notice of such material breach or insolvency event. The DHHS also has the right to require Forte to grant mandatory sublicenses to the patent rights licensed from the DHHS to product candidates covered by other DHHS licenses under certain specified circumstances, including if it is necessary to meet health and safety needs that Forte is not reasonably satisfying or if necessary to meet requirements for public use specified by federal regulations, which Forte is not reasonably satisfying. Any required sublicense of the DHHS License could result in the loss of significant rights and could harm Forte's ability to commercialize licensed products.

Recent Events

Tocagen and Forte entered into a Merger Agreement dated as of February 19, 2020, or the Merger Agreement, pursuant to which the Forte stockholders will contribute, transfer, assign and deliver all of the Forte shares owned by them, and all of their rights with respect to such Forte shares, to Tocagen in exchange for shares of Tocagen Common Stock, with the result of Forte becoming a wholly-owned subsidiary of Tocagen, which is referred to as the Merger.

In connection with the Merger, on February 19, 2020, Forte entered into the Securities Purchase Agreement with certain investors pursuant to which, among other things, Forte agreed to issue to the investors (i) an aggregate of 13,055,999 shares of Forte Common Stock at a purchase price of $1.0769 per share, for gross proceeds of approximately $14.1 million and (ii) warrants to purchase an equal number of shares of Forte Common Stock purchased under the Securities Purchase Agreement, and on March 18, 2020 Forte entered into a Common Stock Purchase Agreement with certain investors pursuant to which, among other things, Forte agreed to issue to the investors approximately $5.2 million of shares of Forte Common Stock. The warrants to be issued pursuant to the Securities Purchase Agreement shall have an exercise price equal to that price per share of Tocagen Common Stock wherein Tocagen's market value, after the Merger, would be $120.0 million.

At the closing of the Merger, each Forte common share will be exchanged for the right to receive a number of shares of Tocagen Common Stock equal to the Exchange Ratio, and each Forte warrant will be exchanged for the right to receive a warrant to purchase a number of shares of Tocagen Common Stock equal to the Exchange Ratio. Tocagen stockholders will continue to own and hold their existing shares of Tocagen Common Stock. The Exchange Ratio is determined pursuant to a formula in the Merger Agreement.

Immediately after the Merger and assuming Tocagen holds $3.0 million of net cash at the closing of the Merger, (a) current Tocagen equity holders are expected to own approximately 17.6% of the combined company and (b) current Forte equity holders are expected to own approximately 82.4% of the combined company, on a fully-diluted treasury stock method basis, in each case subject to adjustment as provided in the Merger Agreement and calculated on a pro forma basis after giving effect to (i) the issuance of common shares by Forte immediately prior to the closing of the Merger pursuant to the terms of the Stock Purchase Agreements, and (ii) the Merger.

Revenue

Forte has no products approved for commercial sale and has not generated any revenue from product sales.

In the future, in addition to, or in lieu of, commercializing and selling its product, Forte may generate revenue by entering into licensing arrangements or strategic alliances. To the extent it enters into any license arrangements or strategic alliances, Forte expects that any revenue it generates will fluctuate from quarter-to-quarter as a result of the transfer of control regarding fulfilment of performance obligations such as pre-clinical, clinical, regulatory and commercialization achievements. If Forte fails to develop product candidates in a timely manner, obtain regulatory approval for them, or commercialize them, Forte's ability to generate future revenues, and its results of operations and financial position would be adversely affected.

Research and Development Expenses

Research and development expenses consist of costs associated with Forte's research activities, including the development of its current product candidate. Forte's research and development expenses include:

- external research and development expenses incurred under arrangements with third parties, such as CROs, contract manufacturing organizations, consultants, and Forte's scientific advisors; and
- internal personnel expenses;

Forte expenses research and development costs as incurred. Nonrefundable advance payments for goods and services that will be used in future research and development activities are capitalized as an asset and expensed when the service has been performed or when the goods have been received.

Since Forte's inception in May 2017, Forte has spent a total of approximately $3.1 million in research and development expenses through December 31, 2019. This mainly includes external development expenses and internal personnel expenses for its development of FB-401. In 2019 Forte incurred costs for the completion of its clinical phase 1/2a program to evaluate the safety and activity of FB-401 as a live biotherapeutic for treatment of AD, and a secondary objective was to evaluate the effect of FB-401 on quality of life of participants with AD. The program consisted of one adult cohort and one pediatric cohort. Forte is planning for a phase 2 trial in mid-2020.

Forte expects its research and development expenses to increase for the foreseeable future as Forte continues to conduct its ongoing regulatory and commercialization activities, initiates new clinical trials and builds its pipeline. The process of commercialization and conducting clinical trials necessary to obtain regulatory approval is costly and time consuming. Forte may never succeed in achieving marketing approval for any of Forte's product candidates.

Forte anticipates it will make determinations as to which other programs, if any, to pursue and how much funding to direct to each program on an ongoing basis in response to the development and regulatory success of each product candidate, and ongoing assessments as to each product candidate's commercial potential.

General and Administrative Expenses

General and administrative expenses consist primarily of personnel expenses, professional fees for legal, auditing, tax and business consulting services and travel costs. Forte expects that general and administrative expenses will increase in the future as Forte expands its operating activities.

If Forte completes the Merger, Forte would become a SEC registrant and would expect to incur significant additional costs associated with being a SEC registrant. These increases will likely include legal fees, costs associated with Sarbanes-Oxley compliance, accounting fees, and directors' and officers' liability insurance premiums.

Critical Accounting Policies and Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires us to make estimates and judgments that affect the reported amounts of assets, liabilities and expenses. On an ongoing basis, Forte evaluates these estimates and judgments. Forte bases its estimates on historical experience and on various assumptions that Forte believes to be reasonable under the circumstances. These estimates and assumptions form the basis for making judgments about the carrying values of assets and liabilities and the recording of expenses that are not readily apparent from other sources. Actual results may differ materially from these estimates.

Results of Operations

Comparison of Years Ended December 31, 2019 and 2018

The following table summarizes Forte's results of operations for the years ended December 31, 2019 and 2018 (in thousands):

	Year Ended December 31,		Change	
	2019	2018	$	%
Research and development expenses	$2,684	$423	$2,261	535%
General and administrative expenses	1,380	266	1,114	419%

Research and Development Expenses

Research and development expenses were $2.7 million for the year ended December 31, 2019, as compared to $0.4 million during the same period of 2018. Such expenses were related to Forte's FB-401 program. Personnel expenses totaled $0.4 million for 2019 and $46,000 for 2018.

General and Administrative Expenses

General and administrative expenses were $1.4 million for the year ended December 31, 2019 as compared to $0.3 million for the same period of 2018. This increase of $1.1 million was primarily due to increase in legal and consulting fees related to the development of FB-401.

Liquidity and Capital Resources

Forte has no products approved for commercial sale and has not generated any revenue from product sales. Forte has never been profitable and has incurred operating losses in each year since inception. Forte's net losses were approximately $4.1 million for the year ended December 31, 2019, and approximately $0.9 million for the year ended December 31, 2018. As of December 31, 2019, Forte had an accumulated deficit of approximately $5.0 million. Substantially all of Forte's operating losses resulted from expenses incurred in connection with its research and development programs and from general and administrative costs associated with its operations.

Forte expects to incur significant expenses and increasing operating losses for the foreseeable future as it continues the clinical development of FB-401. In addition, assuming completion of the Merger, operating as a SEC registrant will involve the hiring of additional financial and other personnel, upgrading financial information systems, and incurring costs associated with operating as a public company. Forte expects that its operating losses will fluctuate significantly from quarter-to-quarter and year-to-year due to timing of clinical development programs.

From inception to December 31, 2019, Forte has raised net cash proceeds of approximately $9.9 million in a series A financing round from private placements of preferred stocks. As of December 31, 2019, Forte had cash of approximately $6.9 million. While Forte expects its existing cash and sale of convertible notes and common stock will enable it to fund operations and capital expenditure requirements for at least the next 12 months, Forte may not have sufficient funds to reach commercialization. Forte expects to require substantial additional capital to continue and complete its clinical development activities and fund its operations. The amount and timing of Forte's future funding requirements will depend on many factors, including the pace and results of its development, regulatory and commercialization efforts. Failure to raise capital as and when needed, on favorable terms or at all, would have a negative impact on Forte's financial condition and its ability to develop and commercialize its product candidates. Immediately prior to the Merger, Forte will raise an additional $19.3 million.

The following table shows a summary of Forte's cash flows for the years ended December 31, 2019 and 2018 (in thousands):

	Year Ended December 31,	
	2019	2018
Net cash (used in) provided by:		
Operating activities	$(2,771)	$ (618)
Investing activities	(162)	—
Financing activities	4,856	5,633
Net increase in cash	$ 1,923	$5,015

Operating Activities

Cash used in operating activities was $2.8 million for the year ended December 31, 2019 as compared to $0.6 million for the year ended December 31, 2018. The increase of $2.2 million from 2018 to 2019 was principally due to increases in manufacturing activity and increases in consulting expenses related to the development of FB-401.

Investing Activities

Net cash used in investing activities during the year ended December 31, 2019 relates to the purchase of property and equipment.

Financing Activities

Net cash provided by financing activities was $4.9 million for the year ended December 31, 2019, from the sale of preferred stock, as compared to $5.6 million during the year ended December 31, 2018 from the issuance of convertible notes, preferred stock and common stock.

Future Capital Requirements

Forte has not generated any revenue from product sales. Forte does not know when, or if, it will generate any revenue from product sales. Forte does not expect to generate any revenue from product sales unless and until Forte obtains regulatory approval for and commercializes any of its product candidates. At the same time, Forte expects its expenses to increase in connection with its ongoing development and manufacturing activities, particularly as Forte continues the research, development, manufacture and clinical trials of, and seeks regulatory approval for FB-401. Immediately prior to the closing of the Merger, Forte expects to receive proceeds of $19.3 million from the financing contemplated by the Stock Purchase Agreements. Upon the closing of the Merger, Forte expects to incur additional costs associated with operating as a SEC registrant. In addition, subject to obtaining regulatory approval of any of its product candidates, Forte anticipates that it will need substantial additional funding in connection with its continuing operations.

As of December 31, 2019, Forte had approximately $6.9 million in cash. Forte expects its research and development expenses to substantially increase in connection with Forte's ongoing activities, particularly as it advances FB-401 in or towards clinical development.

Forte's future capital requirements are difficult to forecast and will depend on many factors, including but not limited to:

- the terms and timing of any strategic alliance, licensing and other arrangements that Forte may establish;

- the initiation and progress of Forte's ongoing clinical trials for its product candidates;
- the number of programs Forte pursues;
- the outcome, timing and cost of regulatory approvals;
- the cost and timing of hiring new employees to support Forte's continued growth;
- the costs involved in patent filing, prosecution, and enforcement; and
- the costs and timing of having clinical supplies of Forte's product candidates manufactured.

Until Forte can generate a sufficient amount of revenue to finance its cash requirements, it expects to finance its future cash needs primarily through the issuance of additional equity, including the Pre-Closing Financing, and potentially through borrowings and strategic alliances with third parties. To the extent that Forte raises additional capital through the issuance of additional equity or convertible debt securities, the ownership interest of Forte's stockholders (and if the Merger is completed, of the combined company), will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of existing Forte stockholders. Debt financing, if available, may involve agreements that include covenants limiting or restricting the ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. If Forte raises additional funds through marketing and distribution arrangements or other collaborations, strategic alliances or licensing arrangements with third parties, Forte may have to relinquish valuable rights to Forte's technologies, future revenue streams, research programs or product candidates or grant licenses on terms that may not be favorable to Forte. If Forte is unable to raise additional funds through equity or debt financings when needed, Forte may be required to delay, limit, reduce or terminate its product development or commercialization efforts or grant rights to develop and market product candidates to third parties that Forte would otherwise prefer to develop and market itself.

Off-Balance Sheet Arrangements

Forte has not entered into any off-balance sheet arrangements and does not have any holdings in variable interest entities.

Recently Adopted Accounting Standards

In February 2016, the FASB issued ASU No. 2016-02, Leases ("ASC 842"), which supersedes all existing lease guidance. This guidance offers specific accounting guidance for a lessee, a lessor and sale and leaseback transactions. The new standard requires lessees to recognize an operating lease with a term greater than one year on their balance sheets as a right-of-use asset and corresponding lease liability, measured at the present value of the lease payments. Lessees are required to classify leases as either finance or operating leases. If the lease is effectively a financed-purchase by the lessee, it is classified as a financing lease, otherwise it is classified as an operating lease. This classification will determine whether lease expense is recognized based on an effective interest method or on a straight-line basis over the term of the lease. ASC 842 provides accounting guidance for transactions that meet specific criteria for a leaseback transaction. If the criteria are not met, the transaction is considered a "failed sale" and the transaction must be accounted for as a financing arrangement. The new standard was effective for the Company as of January 1, 2019. Upon adoption, lessees must apply a modified retrospective transition approach for leases existing at, or entered after, the beginning of the earliest comparative period presented in the financial statements. Adoption of this new guidance did not have an impact on the Company's financial position and results of operations.

In June 2018, the FASB issued ASU 2018-07, "Compensation-Stock Compensation (Topic 718): Improvements to Nonemployee Share-Based Payment Accounting", which expands the scope of Topic 718 to include share-based payment transactions for acquiring goods and services from non-employees. An entity should apply the requirements of Topic 718 to nonemployee awards except for specific guidance on inputs to an

option pricing model and the attribution of cost (that is, the period of time over which share-based payment awards vest and the pattern of cost recognition over that period). The amendments specify that Topic 718 applies to all share-based payment transactions in which a grantor acquires goods or services to be used or consumed in a grantor's own operations by issuing share-based payment awards. The amendments also clarify that Topic 718 does not apply to share-based payments used to effectively provide (1) financing to the issuer or (2) awards granted in conjunction with selling goods or services to customers as part of a contract accounted for under Topic 606. The guidance is effective for the Company for fiscal years beginning after December 15, 2018. Early adoption is permitted, but no earlier than an entity's adoption date of Topic 606. The Company early adopted the guidance as of January 1, 2019, which did not have a material impact on the Company's financial statements.

In November 2016, the FASB issued ASU No. 2016-18, Statement of Cash Flows Topic 230: Restricted Cash, which requires the statement of cash flows to explain the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents. When cash, cash equivalents, restricted cash and restricted cash equivalents are presented in more than one-line item on the balance sheet, the new guidance requires a reconciliation of the totals in the statement of cash flows to the related captions in the balance sheet. This reconciliation can be presented either on the face of the statement of cash flows or in the notes to the financial statements. The new standard was effective for the Company on January 1, 2019. The adoption of this standard did not have an impact on the Company's statement of cash flow presentation and disclosure.

Recently Issued Accounting Standards

From time to time, new accounting pronouncements are issued by the FASB or other standard setting bodies and adopted by us as of the specified effective date. Unless otherwise discussed, the Company believes that the impact of recently issued standards that are not yet effective will not have a material impact on the Company's its financial position or results of operations.

In June 2016, the FASB issued ASU 2016-13, Financial Instruments—Credit Losses, which changes the accounting for recognizing impairments of financial assets. Under the new guidance, credit losses for certain types of financial instruments will be estimated based on expected losses. The new guidance also modifies the impairment models for available-for-sale debt securities and for purchased financial assets with credit deterioration since their origination. This update is effective for the Company as of January 1, 2020. The Company believes the adoption will modify the way the Company analyzes financial instruments, but it does not anticipate a material impact on its financial position or results of operations.

In August 2018, the FASB issued ASU 2018-13, Fair Value Measurement ("ASC 820"). The new guidance removes, modifies and adds to certain disclosure requirements on fair value measurements in ASC 820. This new guidance will be effective for the Company as of January 1, 2020, and the Company does not anticipate the adoption will have a material impact on its financial position or results of operations.

In December 2019, the FASB issued ASU 2019-12, Income Taxes ("ASC 740"), which simplifies the accounting for income taxes by eliminating certain exceptions to the guidance in ASC 740 related to the approach for intra-period tax allocation, the methodology for calculating income taxes in an interim period and the recognition of deferred tax liabilities for outside basis differences. The new guidance also simplifies aspects of the accounting for franchise taxes and enacted changes in tax laws or rates and clarifies the accounting for transactions that result in a step-up in the tax basis of goodwill. The guidance is effective for calendar-year public business entities in 2021 and interim periods within that year. For all other calendar-year entities, it is effective for annual periods beginning in 2022 and interim periods in 2023. Early adoption is permitted. The Company does not expect adoption of this new guidance will have a material impact on its financial position or results of operations.

QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISKS

The primary objective of Tocagen's investment activities is to preserve its capital to fund its operations. Tocagen also seeks to maximize income from its investments without assuming significant risk. To achieve its objectives, Tocagen maintains a portfolio of cash equivalents and investments in securities of high credit quality. As of December 31, 2019, Tocagen had cash, cash equivalents and marketable securities of $21.8 million consisting of cash and investments in certificates of deposit, money market funds, and investment-grade fixed income securities. A significant portion of Tocagen's investments may be subject to interest rate risk and could fall in value if market interest rates increase. However, because Tocagen's investments are primarily short-term in duration, it believes that its exposure to interest rate risk is not significant and a 1% movement in market interest rates would not have a significant impact on the total value of its portfolio. Tocagen actively monitors changes in interest rates.

If a 10% change in interest rates were to have occurred on December 31, 2019, this change would not have had a material effect on Tocagen's interest expense as of that date.

MANAGEMENT FOLLOWING THE MERGER

The following table provides information regarding the expected directors and executive officers of the combined company following the closing of the Merger:

Name	Age	Position
Executive Officers		
Paul A. Wagner, Ph.D.	49	Chief Executive Officer, President and Director
Antony Riley	52	Chief Financial Officer
Key Employees		
Daniel J. Burge	58	Head of Clinical Development
Hank Talbot	68	Upstream Manufacturing and Quality
Non-Employee Directors		
Martin J. Duvall	58	Director
Thomas E. Darcy	70	Director
Lawrence Eichenfield, M.D.	62	Director
Steven Kornfeld	52	Director
Patricia Walker, M.D., Ph.D.	60	Director
Donald A. Williams	61	Director

* One additional member of the combined company's board will be appointed prior to the closing of the Merger.

Executive Officers

Paul A. Wagner, Ph.D., Chief Executive Officer, President and Director

Dr. Wagner founded Forte, has served as President and Chief Executive Officer of Forte since 2018, and has served as a member of Forte's board of directors since 2017. In 2017, Dr. Wagner was the Head of Corporate Strategy and Development at CANBridge Life Sciences. From 2014 to 2017, Dr. Wagner was the Chief Financial Officer of Pfenex Inc., a biotechnology company. From 2006 to 2014, Dr. Wagner held the positions of Director and Portfolio Manager/Sr. Equity Analyst with Allianz Global Investors, an investment manager where he was responsible for biotechnology and pharmaceutical investments. Prior to that, Dr. Wagner was the Head of Development Licensing at PDL BioPharma, a biopharmaceutical company from 2005 until 2006. Prior to PDL BioPharma, Dr. Wagner held the position of Vice President at Lehman Brothers, a financial services firm, starting in 1999 until 2005. Dr. Wagner received a B.S. from the University of Wisconsin and a Ph.D. in Chemistry from the California Institute of Technology. Dr. Wagner is also a CFA charter holder.

Antony A. Riley, Chief Financial Officer

Mr. Riley has served as Forte's Chief Financial Officer since March 2020. Prior to joining Forte, Mr. Riley was Chief Financial Officer of Krystal Biotech, Inc., a biotechnology company, from September 2017 to February 2020. Previously, Mr. Riley was a founding partner since 2002 of the CFO Network LLC, a consulting firm, since 2002, and was Acting Chief Financial Officer at Avanex Corporation and Corporate Controller at Kosan Biosciences. He also served in numerous capacities at Troy Chemical Corporation from 1997 to 2000. He received a B.Sc. (Honors) from the University of Bristol (England) and an M.B.A. (Honors) from the University of Chicago, Booth School of Business.

Key Employees

Daniel J. Burge, MD, Head of Clinical Development

Dr. Burge leads clinical development and clinical operations at Forte and will be appointed Head of Clinical Development effective upon the closing of the Merger. Dr. Burge has 23 years of experience in the biotechnology and pharmaceutical industry. Prior to joining Forte, Dr. Burge was the Senior Vice President of Clinical Development at Dermira, Inc., a biopharmaceutical company, where he managed a Phase 3 program partnered with UCB that led to the approval of Cimzia for the treatment of psoriasis and a Phase 2 program for the treatment of atopic dermatitis. Prior to Dermira, Dr. Burge worked with Gilead Sciences, a biotechnology company, contributing to the development of novel agents for rheumatic diseases. Dr. Burge was also previously Chief Medical Officer at Trubion Pharmaceuticals, a biopharmaceutical company, Vice President of Clinical Development at Amgen, a biopharmaceutical company, and Vice President of Clinical Development at Immunex, a biopharmaceutical company. Dr. Burge received his MD from Thomas Jefferson University and his BA from Taylor University, Upland, IN.

Hank Talbot, Upstream Manufacturing and Quality

Dr. Talbot has served as an upstream manufacturing and quality consultant to Forte since 2017 and will be appointed to the role of Upstream Manufacturing and Quality effective upon the closing of the Merger. Dr. Talbot has 35 years of experience in the biotechnology industry, focused on process development, manufacturing, and quality assurance. Prior to Forte, Dr. Talbot served in various roles at Pfenex Inc., a biotechnology company, including as Vice President, Quality and Facilities Operations, from 2015 to 2017 and Vice President, Research & Operations, from 2009 to 2015. Dr. Talbot was also previously a Site Leader at The Dow Chemical Company from 2007 to 2009, a Senior Leader at Dow from 1999 to 2007, a Director at Mycogen Corporation from 1992 to 1999, and had various research roles prior to joining Mycogen. Dr. Talbot received a Ph.D. in microbiology from Oregon State University, an M.S. in microbiology from the University of Missouri and a B.A. in biology from the University of Colorado.

Non-Employee Directors

Thomas E. Darcy, Director

Mr. Darcy has served as a member of the Tocagen Board since August 2007. Mr. Darcy served as Tocagen's Chief Financial Officer from August 2007 to February 2017 and as Tocagen's Executive Vice President from August 2007 to May 2017. Mr. Darcy is a co-founder of Tocagen. Prior to joining Tocagen, Mr. Darcy served for over five years as Executive Vice President and Chief Financial Officer of Science Applications International Corporation ("SAIC"), a publicly-held science and technology company. Mr. Darcy also served as a director and chairman of the audit committee of McAfee, Inc., a publicly-held technology company, for over three years until its sale to Intel Corporation in February 2011. Mr. Darcy also currently serves as a director and chairman of the audit committee of Lytx, Inc., a privately-held technology company. Prior to SAIC, he was a Partner in the accounting firm of PricewaterhouseCoopers LLP, where he served as the Managing Partner of both the West and Southwest Region Audit and Business Advisory Service Technology practices, as well as the Managing Partner of the San Diego office. Mr. Darcy is a Certified Public Accountant (inactive) in the state of California and graduated from San Diego State University with a B.S. in Accounting.

Martin J. Duvall, Director

Mr. Duvall has served as Tocagen's Chief Executive Officer and as a member of the Tocagen Board since November 2016. Prior to joining Tocagen, Mr. Duvall served as Executive Vice President, Chief Commercial Officer of ARIAD Pharmaceuticals, Inc., a publicly-held biotechnology company, from September 2011 to June 2016. From December 2010 to September 2011, he served as Senior Vice President and General Manager for the oncology franchise at Merck & Co., Inc., a publicly-held healthcare company. Prior to that, he served in similar

capacities at Abraxis Bioscience, Inc., a publicly-held biotechnology company which was acquired by Celgene Corporation, and MGI Pharma, Inc., a publicly-held biopharmaceutical company which was acquired by Eisai Co., Ltd., and in positions of increasing responsibility at Sanofi US, a publicly-held biotechnology company, and its predecessor companies. Mr. Duvall received his B.S. degree in chemistry from Muhlenberg College, his M.A. degree in chemistry from Johns Hopkins University and his M.B.A. from the University of Kansas.

Lawrence Eichenfield, M.D., Director

Dr. Eichenfield is chief of pediatric and adolescent dermatology at Rady Children's Hospital-San Diego, as well as vice chair of the Department of Dermatology and a professor of dermatology and pediatrics at UC San Diego School of Medicine. Dr. Eichenfield is past president of the Society for Pediatric Dermatology, has served on the board of the American Academy of Dermatology, and served as chair for the 69th Annual Meeting of the American Academy of Dermatology. He is also a founding board member of the American Acne & Rosacea Society and is a founder and past co-chair of the Pediatric Dermatology Research Alliance, a collaborative research network. Dr. Eichenfield earned his medical degree from Mount Sinai School of Medicine in New York, was a pediatric resident and chief resident at Children's Hospital of Philadelphia, and completed dermatology training at the hospital of the University of Pennsylvania. He is board certified in pediatrics, dermatology and pediatric dermatology. He has been honored as a member of the Alpha Omega Alpha Honor Society during medical school, and as a recipient of the Benjamin Ritter Award at Children's Hospital of Philadelphia and excellence in teaching awards from UC San Diego Pediatrics, UC San Diego Dermatology and Rady Children's Hospital-San Diego.

Steven Kornfeld

Mr. Kornfeld is joining the board of directors of the combined company upon the closing of the Merger. Mr. Kornfeld was previously a Vice President, Portfolio Manager, Research Analyst and Health Care Sector Team Leader for Franklin Templeton Investments from 2001 until his retirement in February 2020, and was a Co-Manager of the Franklin Biotechnology Discovery Fund since 2015. Mr. Kornfeld had previously served as a Lead and Co-Manager on several portfolios at Franklin including the Franklin Focused Core Equity Fund and a predecessor to the Franklin Growth Fund. Mr. Kornfeld received an M.B.A. from Northwestern University's Kellogg Graduate School of Management and a bachelor's degree from the Wharton School of Business at the University of Pennsylvania. Mr. Kornfeld is also a CFA charter holder.

Patricia Walker, M.D., Ph.D.

Dr. Walker is joining the board of directors of the combined company upon the closing of the Merger. Since 2006, Dr. Walker has operated a consulting company, Walker Consulting, through which she consults with multiple pharmaceutical companies, and a dermatology practice, Walker Dermatology, as a solo practitioner. Dr. Walker also served as President and Chief Scientific Officer of Brickell Biotech, Inc. a pharmaceutical company, from June 2015 to November 2018. In addition, Dr. Walker previously served in multiple roles at Kythera Biopharmaceuticals, a biopharmaceutical company, from 2008 to 2015, including Chief Medical Officer, and in multiple roles at Allergan plc, a pharmaceutical company, from 1997 to 2004 and 2006 to 2007, including Executive Vice President and Chief Scientific Officer, and was Executive Vice President and Chief Scientific Officer at Inamed Corporation, a healthcare products manufacturer, from 2004 to 2006. Dr. Walker is currently a supervisory board member of Merz Pharma, a pharmaceutical company. Dr. Walker received a M.D. and Ph.D. from the University of Iowa College of Medicine and a B.S. from the University of Iowa.

Donald A. Williams

Mr. Williams is joining the board of directors of the combined company upon the closing of the Merger. Mr. Williams is a veteran of the public accounting industry for over three decades, having spent 18 years as a Partner with Ernst & Young LLP, and seven years as a Partner with Grant Thornton LLP. Mr. Williams' career

focused on private and public companies in the technology and life sciences sectors. During his time at Grant Thornton from 2007 to 2014, he served as the national leader of Grant Thornton's life sciences practice and the managing partner of the San Diego Office. He was the lead partner for both Ernst & Young and Grant Thornton on multiple initial public offerings, secondary offerings, private and public debt financings, as well as numerous mergers and acquisitions. From 2001 to 2014, Mr. Williams served on the Board of Directors and is past President and Chairman of the San Diego Venture Group. Mr. Williams also serves as a director of Alphatec Holdings, Inc. (Nasdaq: ATEC), Akari Therapeutics Plc (Nasdaq: ARTX), ImpediMed Ltd (ASX: IPD), and Leading Biosciences (private). Mr. Williams earned a B.S. degree from Southern Illinois University.

Composition of the Board of Directors Following the Merger

In addition to the above listed directors, Forte is also currently interviewing potential candidates to join the combined company's board of directors following the Merger.

The Tocagen Board is currently divided into three staggered classes, with each class serving a three-year term. The staggered structure of the Tocagen Board will remain in place for the combined company's board of directors following the completion of the Merger. The terms of the combined company's Class I, Class II and Class III directors will expire upon the election and qualification of successor directors at the annual meetings of stockholders to be held in 2021, 2022 and 2023, respectively. Following the closing of the Merger, the combined company's directors will be divided among the three classes as follows:

- The Class I directors will be:
- The Class II directors will be:
- The Class III directors will be:

Independence of the Board of Directors

Under the Nasdaq listing standards, a majority of the members of the combined company's board of directors must qualify as "independent," as affirmatively determined by the board of directors. The board of directors has affirmatively determined that all of the expected directors, except for Dr. Wagner, Mr. Duvall and Mr. Darcy, are independent directors within the meaning of the applicable Nasdaq listing standards. Mr. Darcy will meet the independent director qualifications on May 12, 2020. All members of the combined company's audit committee, compensation committee and nominating and corporate governance committee will be independent directors under the applicable Nasdaq listing standards.

Board Leadership

The combined company's board of directors will be responsible for the control and direction of the combined company. The Chairperson of the combined company's board of directors will be selected by the combined company's board of directors and will initially be Dr. Wagner, who will also be the Chief Executive Officer of the combined company. Forte and Tocagen believe that this leadership structure is appropriate given Dr. Wagner's role in founding Forte and familiarity with Forte's business and that this leadership structure will improve the ability of the combined company's board of directors to focus on key operational and strategy issues and help the Company operate in the long-term interests of its stockholders.

Committees of the Combined Company's Board of Directors

The combined company's board of directors will establish an audit committee, a compensation committee and a nominating and corporate governance committee. The expected composition and responsibilities of each committee are described below. Members will serve on these committees until their resignations or until otherwise determined by the board of directors. The audit committee, compensation committee and nominating and corporate governance committee each will operate under a written charter adopted by the board of directors, all of which will be available on the combined company's website.

Audit Committee

The combined company's audit committee is expected to be comprised of members. Mr. Williams is expected to be the chairperson of the audit committee, and and are expected to be the other members of the audit committee. Each member of the audit committee will meet the requirements for independence under current Nasdaq listing standards and SEC rules and regulations and will be financially literate as required by Nasdaq listing standards. In addition, the board of directors has determined that Mr. Williams is an "audit committee financial expert" as defined in Item 407(d)(5)(ii) of Regulation S-K promulgated under the Securities Act. This designation does not impose any duties, obligations or liabilities that are greater than those generally imposed on members of the audit committee and the board of directors.

Among other functions, the combined company's audit committee will evaluate the performance of and assesses the qualifications of the independent registered public accounting firm; engage the independent registered public accounting firm; determine whether to retain or terminate the existing independent registered public accounting firm or to appoint and engage a new independent registered public accounting firm; confer with senior management and the independent registered public accounting firm regarding the adequacy and effectiveness of internal control over financial reporting; establish procedures, as required under applicable law, for the receipt, retention and treatment of complaints received regarding accounting, internal accounting controls or auditing matters and the confidential and anonymous submission by employees of concerns regarding questionable accounting or auditing matters; review and approve the retention of the independent registered public accounting firm to perform any proposed permissible non-audit services; monitor the rotation of partners of the independent registered public accounting firm on the audit engagement team as required by law; review annually the audit committee's written charter and the committee's performance; review the financial statements to be included in the Annual Report on Form 10-K; and discuss with management and the independent registered public accounting firm the results of the annual audit and the results in the quarterly financial statements. The audit committee will have the authority to retain special legal, accounting or other advisors or consultants as it deems necessary or appropriate to carry out its duties.

Compensation Committee

The combined company's compensation committee is expected to be comprised of members. is expected to be the chairperson of the compensation committee, and and are expected to be the other members of the compensation committee. The composition of the compensation committee will meet the requirements for independence under current Nasdaq listing standards and SEC rules and regulations.

The combined company's compensation committee will oversee the overall compensation strategy and related policies, plans and programs. Among other functions, the compensation committee will determine and approve the compensation and other terms of employment of the Chief Executive Officer; determine and approve the compensation and other terms of employment of the other executive officers, as appropriate; review and recommend to the board of directors the type and amount of compensation to be paid to board members; recommend to the board of directors the adoption, amendment and termination of the combined company's equity incentive plans; administer the combined company's equity incentive plans; and review and establish appropriate insurance coverage for the directors and executive officers. The compensation committee will have the authority to retain special legal, accounting or other advisors or consultants as it deems necessary or appropriate to carry out its duties.

Nominating and Corporate Governance Committee

The combined company's nominating and corporate governance committee is expected to be comprised of members. is expected to be the chairperson of the nominating and corporate governance committee, and and are expected to be the other members of the nominating and corporate

governance committee. The composition of the nominating and corporate governance committee will meet the requirements for independence under current Nasdaq listing standards and SEC rules and regulations.

The combined company's nominating and corporate governance committee will be responsible for identifying, reviewing and evaluating candidates to serve on the board of directors; reviewing and evaluating incumbent directors and the performance of the board of directors; recommending candidates to the board of directors for election; making recommendations regarding the membership of the committees of the board of directors; assessing the performance of the board of directors, including its committees; and developing a set of corporate governance guidelines for the combined company.

Director Liability and Indemnification

The combined company purchased directors' and officers' liability insurance and will enter into indemnification arrangements with each of its directors and executive officers. The indemnification agreements and the combined company's certificate of incorporation and bylaws will require it to indemnify the directors and officers to the fullest extent permitted by Delaware law.

Corporate Governance Guidelines

The combined company's board of directors will adopt and maintain corporate governance guidelines that set forth expectations for directors, director independence standards, board committee structure and functions and other policies for the governance of the combined company. The corporate governance guidelines will be made available on the combined company's website.

Code of Business Conduct and Ethics

The combined company's board of directors will maintain a Code of Business Conduct and Ethics that applies to all board members, officers and employees. The Code of Business Conduct and Ethics, and any applicable waivers or amendments, will be made available on the combined company's website.

EXECUTIVE COMPENSATION OF TOCAGEN

Tocagen's named executive officers for the year ended December 31, 2019, which consists of its principal executive officer, and its two other most highly compensated executive officers are:

- Martin J. Duvall, Tocagen's Chief Executive Officer
- Mark Foletta, Tocagen's Executive Vice President and Chief Financial Officer
- Fairooz Kabbinavar, MD, Tocagen's Senior Vice President, Clinical Development

Summary Compensation Table

The following table shows the compensation earned by Tocagen's named executive officers for the fiscal years ended December 31, 2019 and 2018.

Name and principal position	Year	Salary ($)	Bonus ($)	Non-equity incentive plan compensation ($)[1]	Option awards ($)[2]	All other compensation ($)[3]	Total ($)
Martin J. Duvall	2019	515,000	—	—	1,257,437	474	1,772,911
Chief Executive Officer	2018	511,192	—	270,932	1,237,155	560	2,019,839
Mark Foletta	2019	388,308	—	—	592,443	360	981,111
Executive Vice President and Chief Financial Officer	2018	378,981	—	160,688	701,054	426	1,241,149
Fairooz Kabbinavar, MD[4]	2019	291,731	$79,575[5]	—	703,622	64,732	1,139,660
Senior Vice President, Clinical Development							

(1) Amounts shown represent performance bonuses earned in 2018, which were paid in cash in February 2019.

(2) In accordance with SEC rules, this column reflects the aggregate grant date fair value of the stock option awards granted during 2019 and 2018, as applicable, computed in accordance with Financial Accounting Standard Board ("FASB") Accounting Standards Codification Topic 718 for stock-based compensation transactions ("ASC 718"). Assumptions used in the calculation of these amounts are described in Note 7 to Tocagen's audited financial statements included in its Annual Report on Form 10-K for the year ended December 31, 2019. These amounts do not reflect the actual economic value that will be realized by the named executive officer upon the vesting of the stock options, the exercise of the stock options, or the sale of the common stock underlying such stock options.

(3) This column reflects term life insurance premiums paid by Tocagen on behalf of each of the named executive officers. The insurance benefits are provided to the named executive officers on the same terms as provided to all of Tocagen's regular full-time employees. For more information regarding these benefits, see below under "*Executive Compensation of Tocagen—Perquisites, Health, Welfare and Retirement Benefits*." In addition, this column includes $64,457 for relocation pay paid to Dr. Kabbinavar in 2019.

(4) Dr. Kabbinavar's commencement date as Tocagen's Senior Vice President, Clinical Development was April 15, 2019.

(5) Represents signing bonus.

Compensation Program Overview

Tocagen's compensation program for executive officers is designed to encourage Tocagen's management team to continually achieve Tocagen's short-term and long-term corporate objectives while effectively managing business risks and challenges. Tocagen provides what it believes is a competitive total compensation package to Tocagen's management team through a combination of base salary, an annual performance-based bonus and long-term equity-based incentives.

The compensation of Tocagen's named executive officers other than Tocagen's chief executive officer is generally determined and approved by the Compensation Committee of Tocagen's Board, and the compensation of Tocagen's chief executive officer is approved by Tocagen's Board based upon the recommendations of the Compensation Committee.

Annual Base Salary

As of December 31, 2019, the annual base salaries for Tocagen's named executive officers are provided below, which reflect an increase that was effective as of March 1, 2019 for Mr. Foletta. The annual base salary of Mr. Duvall was consistent with his 2018 base salary. Dr. Kabbinavar's commencement date as Tocagen's Senior Vice President, Clinical Development was April 15, 2019.

Name	2019 Base Salary ($)
Martin J. Duvall	515,000
Mark Foletta	390,000
Fairooz Kabbinavar, MD	410,000

Bonus Compensation

On February 22, 2019, the Board approved Tocagen's 2019 bonus plan (the "2019 Bonus Plan"). Under the 2019 Bonus Plan, Tocagen's executive officers were provided with the opportunity to earn bonus payments calculated based upon the achievement of specified corporate and individual goals, with each executive officer being assigned a corporate and individual goal weighting. Under the 2019 Bonus Plan, each executive officer was assigned a target bonus opportunity, which is reflected as a percentage of that individual's 2019 base salary and is based on the individual's role and title in the Company.

Under the 2019 Bonus Plan, the target bonus opportunity as a percentage of 2019 base salary and corporate and individual goal weighting for each of Tocagen's named executive officers is as follows:

Name	Target Bonus	Corporate Goal Weighting (%)	Individual Goal Weighting (%)
Martin J. Duvall	50%	100	—
Mark Foletta	40%	100	—
Fairooz Kabbinavar, MD	40%	75	25

The corporate goals under the 2019 Bonus Plan consisted of clinical development goals, operational goals, strategic goals and financial goals.

No cash bonuses were awarded under Tocagen's 2019 Bonus Plan due to the failure of Tocagen's Toca 5 trial and Tocagen's need for cash preservation.

Equity-Based Incentive Awards

Tocagen's equity-based incentive awards are designed to align Tocagen's interests and those of Tocagen's stockholders with those of Tocagen's employees and consultants, including Tocagen's named executive officers. The Board and Compensation Committee are responsible for approving equity grants to Tocagen's executive officers. To date, stock option and restricted stock awards are the only form of equity awards Tocagen has granted to its named executive officers.

Tocagen has historically used stock options as an incentive for long-term compensation to Tocagen's named executive officers because they are able to profit from stock options only if Tocagen's stock price increases

relative to the stock option's exercise price, which exercise price is set at the fair market value of Tocagen Common Stock on the date of grant. Tocagen may grant equity awards to Tocagen's executive officers at such times as the Tocagen Board and/or Compensation Committee determines appropriate. Tocagen's executives generally are awarded an initial grant in the form of a stock option in connection with their commencement of employment with Tocagen. Additional grants may occur periodically in order to specifically incentivize executives with respect to achieving certain corporate goals or to reward executives for exceptional performance.

Prior to Tocagen's initial public offering in April 2017, Tocagen granted all stock options pursuant to Tocagen's 2009 Plan. Following Tocagen's initial public offering, it has granted and will grant equity incentive awards under the terms of Tocagen's 2017 plan. The terms of Tocagen's equity plans are described below under "*Executive Compensation of Tocagen—Equity Benefit Plans*."

All options are granted with an exercise price per share that is no less than the fair market value of Tocagen Common Stock on the date of grant of such award. Tocagen's stock option awards generally vest over a four-year period and may be subject to acceleration of vesting and exercisability under certain termination and change in control events. See "*Executive Compensation of Tocagen—Outstanding Equity Awards at Fiscal Year-End*."

In March 2019, as part of the Board's annual review of executive compensation, the Tocagen Board granted options to purchase 160,000 shares and 75,000 shares of Tocagen Common Stock to Mr. Duvall and Mr. Foletta, respectively. Each of these options were granted under Tocagen's 2017 Plan and have a per share exercise price equal to $11.00, the closing price of Tocagen Common Stock as reported on The Nasdaq Global Select Market on March 1, 2019, the date of grant. Each option is subject to a four-year vesting schedule, with 25% vesting one year after the vesting commencement date and the balance vesting monthly over the remaining 36 months, subject to the respective optionholder's continued service with Tocagen and provides for (1) vesting acceleration of up to 25% of the shares subject to the option in the event of the respective optionholder's death or disability and (2) full acceleration of all of the shares subject to the option in the event of a change in control. Dr. Kabbinavar's employment commenced on April 15, 2019 and in connection therewith was granted an option to purchase 100,000 shares of Tocagen Common Stock.

In October 2019, the Tocagen Board granted options to purchase 50,000 shares, 30,000 shares, and 20,000 shares of Tocagen Common Stock to Mr. Duvall, Mr. Foletta, and Dr. Kabbinavar, MD, respectively. Each of these options were granted under Tocagen's 2017 Plan and have a per share exercise price equal to $0.64, the closing price of Tocagen Common Stock as reported on The Nasdaq Global Select Market on October 4, 2019, the date of grant. Each option vests in a series of twelve successive equal monthly installments commencing one month after the vesting commencement date, subject to the respective optionholder's continued service with Tocagen and provides for (1) vesting acceleration of up to 25% of the shares subject to the option in the event of the respective optionholder's death or disability and (2) full acceleration of all of the shares subject to the option in the event of a change in control.

Agreements with Tocagen's Named Executive Officers

On February 21, 2020, Tocagen entered into (i) the Duvall Agreement, (ii) the Foletta Agreement and (iii) an Amended and Restated Executive Employment Agreement with Dr. Fairooz Kabbinavar, MD, Tocagen's Senior Vice President, Clinical Development (the "Kabbinavar Agreement").

The Duvall Agreement supersedes all other or prior agreements with respect to Mr. Duvall's employment terms, including the Amended and Restated Employment Agreement, dated February 12, 2018, by and between Tocagen and Mr. Duvall. Mr. Duvall's employment under the Duvall Agreement is at will and may be terminated at any time by Tocagen or him. Pursuant to the Duvall Agreement, Mr. Duvall is entitled to: (i) an annual base salary of $515,000 and (ii) a discretionary annual bonus of up to 50% of Mr. Duvall's base salary, based on achievement of individual and/or corporate performance targets, metrics and/or objectives to be determined and approved by the Tocagen Board or the Compensation Committee. If Tocagen terminates Mr. Duvall's employment without cause (other than due to his death or disability) or if Mr. Duvall resigns for good reason at

any time, or collectively, an Involuntary Termination, Mr. Duvall is entitled to receive (A) severance payments in the form of continuation of his base salary then in effect (ignoring any decrease that forms the basis for his resignation for good reason, if applicable) for 18 months, (B) continued health insurance coverage under Tocagen's group health plans under the Consolidated Omnibus Budget Reconciliation Act of 1985 or the state equivalent until the earliest of (1) the end of the 18 month severance period, (2) the expiration of his eligibility for the continuation coverage, or (3) the date when he becomes eligible for substantially equivalent health insurance coverage in connection with new employment or self-employment and (C) an extension of the period of time following which he may exercise vested shares subject to outstanding equity awards until the date that is the earlier of the original expiration date of such award and 18 months following such Involuntary Termination, or the Duvall Severance Benefits. Additionally, in the event of an Involuntary Termination at any time during the time period commencing three months prior to or 12 months after the effective date of a change in control of us, Mr. Duvall is entitled to receive full vesting acceleration of all shares subject to time-based vesting stock awards then outstanding and held by Mr. Duvall, or the Duvall Change in Control Severance Benefits. The Duvall Severance Benefits and Duvall Change in Control Severance Benefits are conditioned upon Mr. Duvall signing and not revoking a general release of legal claims in the form provided by Tocagen.

The Foletta Agreement supersedes all other or prior agreements with respect to Mr. Foletta's employment terms, including the Amended and Restated Employment Agreement, dated February 12, 2018, by and between Tocagen and Mr. Foletta. Mr. Foletta's employment under the Foletta Agreement is at will and may be terminated at any time by Tocagen or him. Pursuant to the Foletta Agreement, Mr. Foletta is entitled to: (i) an annual base salary of $390,000 and (ii) a discretionary annual bonus of up to 40% of Mr. Foletta's base salary, based on achievement of individual and/or corporate performance targets, metrics and/or objectives to be determined and approved by the Tocagen Board or the Compensation Committee. In the event of an Involuntary Termination of Mr. Foletta, Mr. Foletta is entitled to receive (A) severance payments in the form of continuation of his base salary then in effect (ignoring any decrease that forms the basis for his resignation for good reason, if applicable) for 12 months, (B) continued health insurance coverage under Tocagen's group health plans under the Consolidated Omnibus Budget Reconciliation Act of 1985 or the state equivalent until the earliest of (1) the end of the 12 month severance period, (2) the expiration of his eligibility for the continuation coverage, or (3) the date when he becomes eligible for substantially equivalent health insurance coverage in connection with new employment or self-employment and (C) an extension of the period of time following which he may exercise vested shares subject to outstanding equity awards until the date that is the earlier of the original expiration date of such award and 12 months following such Involuntary Termination, or the Foletta Severance Benefits. Additionally, in the event of an Involuntary Termination at any time during the time period commencing three months prior to or 12 months after the effective date of a change in control of us, Mr. Foletta is entitled to receive full vesting acceleration of all shares subject to time-based vesting stock awards then outstanding and held by Mr. Foletta, or the Foletta Change in Control Severance Benefits. The Foletta Severance Benefits and Foletta Change in Control Severance Benefits are conditioned upon Mr. Foletta signing and not revoking a general release of legal claims in the form provided by Tocagen.

The Kabbinavar Agreement supersedes all other or prior agreements with respect to Dr. Kabbinavar's employment terms, including the Employment Agreement, dated February 26, 2019, by and between Tocagen and Dr. Kabbinavar. Dr. Kabbinavar's employment under the Kabbinavar Agreement is at will and may be terminated at any time by Tocagen or him. Pursuant to the Kabbinavar Agreement, Dr. Kabbinavar is entitled to: (i) an annual base salary of $410,000 and (ii) a discretionary annual bonus of up to 40% of Dr. Kabbinavar's base salary, based on achievement of individual and/or corporate performance targets, metrics and/or objectives to be determined and approved by the Tocagen Board or the Compensation Committee. In the event of an Involuntary Termination of Dr. Kabbinavar is entitled to receive (A) severance payments in the form of continuation of his base salary then in effect (ignoring any decrease that forms the basis for his resignation for good reason, if applicable) for nine months, (B) continued health insurance coverage under Tocagen's group health plans under the Consolidated Omnibus Budget Reconciliation Act of 1985 or the state equivalent until the earliest of (1) the end of the 9 month severance period, (2) the expiration of his eligibility for the continuation coverage, or (3) the date when he becomes eligible for substantially equivalent health insurance coverage in connection with new

employment or self-employment and (C) an extension of the period of time following which he may exercise vested shares subject to outstanding equity awards until the date that is the earlier of the original expiration date of such award and 9 months following such Involuntary Termination, or the Kabbinavar Severance Benefits. Additionally, in the event of an Involuntary Termination at any time during the time period commencing three months prior to or 12 months after the effective date of a change in control of us, Dr. Kabbinavar is entitled to receive full vesting acceleration of all shares subject to time-based vesting stock awards then outstanding and held by Dr. Kabbinavar, or the Kabbinavar Change in Control Severance Benefits. The Kabbinavar Severance Benefits and Kabbinavar Change in Control Severance Benefits are conditioned upon Dr. Kabbinavar signing and not revoking a general release of legal claims in the form provided by Tocagen.

Potential Payments Upon Termination or Change of Control

Regardless of the manner in which a named executive officer's service terminates, the named executive officer is entitled to receive amounts earned during his or her term of service, including unpaid salary and unused vacation, as applicable. In addition, Tocagen's named executive officers are entitled to receive certain benefits upon Tocagen's termination of their employment without cause or their resignation for good reason, as provided above under *"Executive Compensation of Tocagen—Agreements with Tocagen's Named Executive Officers.*"

Each of Tocagen's named executive officers holds stock options that were granted subject to the general terms of Tocagen's 2017 Plan and Tocagen's 2009 Plan. A description of the termination and change in control provisions in Tocagen's 2017 Plan and Tocagen's 2009 Plan and applicable to the stock options granted to Tocagen's named executive officers is provided below under *"Executive Compensation of Tocagen—Equity Benefit Plans*" and "*Executive Compensation of Tocagen—Outstanding Equity Awards at Fiscal Year-End" and above under* "*Executive Compensation of Tocagen—Equity-Based Incentive Awards*."

Outstanding Equity Awards at Fiscal Year-End

The following table sets forth certain information regarding equity awards granted to Tocagen's named executive officers that remain outstanding as of December 31, 2019:

	Option Awards[1]					
	Grant Date	Number of Securities Underlying Unexercised Options Exercisable (#)	Number of Securities Underlying Unexercised Options Unexercisable (#)	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Unearned Options (#)	Option Exercise Price ($)[2]	Option Expiration Date
Martin J. Duvall	11/16/2016	237,960[3]	70,746[3]	—	$ 16.56	11/15/2026
	11/16/2016	—	—	154,353[4]	$ 16.56	11/15/2026
	4/12/2017	31,159[5]	15,580[5]	—	$ 10.00	4/11/2027
	5/26/2017	184,062[6]	100,938[6]	—	$ 16.32	5/25/2027
	3/01/2018	65,625[7]	84,375[7]	—	$ 11.19	2/28/2028
	3/01/2019	—	160,000[8]	—	$ 11.00	02/28/2029
	10/04/2019	8,333[9]	41,667[9]	—	$ 0.64	10/03/2029
Mark Foletta	3/06/2017	49,325[10]	20,311[10]	—	$ 15.12	3/05/2027
	3/06/2017	—	—	34,298[4]	$ 15.12	3/05/2027
	5/26/2017	54,895[11]	30,105[11]	—	$ 16.32	5/25/2027
	3/01/2018	37,187[12]	47,813[12]	—	$ 11.19	2/28/2028
	3/01/2019	—	75,000[13]	—	$ 11.00	2/28/2029
	10/04/2019	5,000[14]	25,000[14]	—	$ 0.64	10/03/2029
Fairooz Kabbinavar, MD	4/15/2019	—	100,000[15]	—	$ 9.94	4/14/2029
	10/04/2019	3,333[16]	16,667[16]	—	$ 0.64	10/03/2029

(1) All of the outstanding stock option awards were granted under and subject to the terms of the 2009 Plan or 2017 Plan, as applicable, described below under *"Executive Compensation of Tocagen—Equity Benefit Plans*." As of December 31, 2019, each option award becomes exercisable as it becomes vested and all vesting is subject to the executive's continuous service with Tocagen through the vesting dates and the potential vesting acceleration described above under *"Executive Compensation of Tocagen—Agreements with Tocagen's Named Executive Officers*" and *"Executive Compensation of Tocagen—Potential Payments and Benefits upon Termination or Change in Control*."

(2) All of the stock option awards were granted with a per share exercise price equal to the fair market value of one share of Tocagen Common Stock on the date of grant, as determined in good faith by the Tocagen Board.

(3) 77,176 shares vested on November 1, 2017 and 6,431 shares vest on the 1st day of each month commencing thereafter and ending on November 1, 2020.

(4) The shares shall vest upon the achievement of three separate development and regulatory milestones (with one-third of the shares vesting upon the achievement of each milestone).

(5) 11,684 shares vested on April 1, 2018 and 973 shares vest on the 1st day of each month commencing thereafter and ending on April 1, 2021.

(6) 71,250 shares vested on May 26, 2018 and 5,937 shares vest on the 26th day of each month commencing thereafter and ending on May 26, 2021.

(7) 37,500 shares vested on March 1, 2019 and 3,125 shares will vest on the 1st day of each month commencing thereafter and ending March 1, 2022.

(8) 40,000 shares vested on March 1, 2020 and 3,333 shares will vest on the 1st day of each month commencing thereafter and ending on March 1, 2023.

(9) 4,166 shares vest in a series of twelve successive equal monthly installments commencing on November 4, 2019 and ending on October 4, 2020.

(10) 17,409 shares vested on February 27, 2018 and 1,450 shares vest on the 27th day of each month commencing thereafter and ending on February 27, 2021.

(11) 21,250 shares vested on May 26, 2018 and 1,770 shares vest on the 26th day of each month commencing thereafter and ending on May 26, 2021.

(12) 21,250 shares vested on March 1, 2019 and 1,770 shares will vest on the 1st day of each month commencing thereafter and ending March 1, 2022.

(13) 18,750 shares vested on March 1, 2020 and 1,562 shares vest on the 1st day of each month commencing thereafter and ending on March 1, 2023.

(14) 2,500 shares vest in a series of twelve successive equal monthly installments commencing on November 4, 2019 and ending on October 4, 2020.

(15) 25,000 shares vested on April 15, 2020 and 2,083 shares will vest on the 15th day of each month commencing thereafter and ending on April 15, 2023.

(16) 1,666 shares vest in a series of twelve successive equal monthly installments commencing on November 4, 2019 and ending on October 4, 2020.

Option Repricings

Tocagen did not engage in any repricings or other modifications or cancellations to any of Tocagen's named executive officers' outstanding equity awards during the fiscal year ended December 31, 2019.

Perquisites Health, Welfare and Retirement Benefits

Our named executive officers, during their employment with us, are eligible to participate in Tocagen's employee benefit plans, including Tocagen's medical, dental, group term life, disability and accidental death and dismemberment insurance plans, in each case on the same basis as all of Tocagen's other employees. Tocagen provides a 401(k) plan to Tocagen's employees, including Tocagen's named executive officers, as discussed in the section below entitled *"Executive Compensation of Tocagen—401(k) Plan."*

Tocagen generally does not provide perquisites or personal benefits to Tocagen's named executive officers, except in limited circumstances. Tocagen does, however, pay the premiums for medical, dental, group term life, disability and accidental death and dismemberment insurance for all of Tocagen's employees, including Tocagen's named executive officers. The Tocagen Board may elect to adopt qualified or nonqualified benefit plans in the future if it determines that doing so is in Tocagen's best interests.

401(k) Plan

Tocagen maintains a defined contribution employee retirement plan ("401(k) plan") for Tocagen's employees. Tocagen's named executive officers are eligible to participate in the 401(k) plan on the same basis as Tocagen's other employees. The 401(k) plan is intended to qualify as a tax-qualified plan under Section 401(k) of the Code. The 401(k) plan provides that each participant may contribute up to the lesser of 100% of his or her compensation or the statutory limit, which was $19,000 for calendar year 2019. Participants that are 50 years or older can also make "catch-up" contributions, which in calendar year 2019 was up to an additional $6,000 above the statutory limit. Beginning January 1, 2019, Tocagen provides a $0.50 match for every $1.00 Tocagen's employees elect to defer up to 6% of their eligible compensation. In general, eligible compensation for purposes of the 401(k) plan includes an employee's wages, salaries, bonuses and other amounts received for personal services actually rendered in the course of employment with Tocagen to the extent the amounts are includible in gross income, and subject to certain adjustments and exclusions required under the Code. Participant contributions are held and invested, pursuant to the participant's instructions, by the plan's trustee. The 401(k) plan currently does not offer the ability to invest in Tocagen's securities.

Nonqualified Deferred Compensation

Tocagen does not maintain nonqualified defined contribution plans or other nonqualified deferred compensation plans. The Tocagen Board may elect to provide Tocagen's officers and other employees with nonqualified defined contribution or other nonqualified deferred compensation benefits in the future if it determines that doing so is in Tocagen's best interests.

Prohibition Against Speculative Trading

Tocagen's insider trading policy prohibits Tocagen's officers, directors, other employees or consultants from engaging in short sales, transactions in put or call options, hedging transactions or other inherently speculative transactions with respect to Tocagen's stock at any time. In addition, none of Tocagen's executives, directors, other employees or consultants may margin, or make any offer to margin, or otherwise pledge as security, any of Tocagen's stock, including without limitation, borrowing against such stock, at any time.

Equity Benefit Plans

2017 Equity Incentive Plan

The Tocagen Board and stockholders approved and adopted the 2017 Plan in March 2017. The 2017 Plan became effective on April 13, 2017 in connection with Tocagen's initial public offering. The 2017 Plan is a successor to and a continuation of Tocagen's 2009 Plan. No further grants will be made under the 2009 Plan.

Awards. The 2017 Plan provides for the grant of incentive stock options ("ISOs"), nonstatutory stock options ("NSOs"), stock appreciation rights, restricted stock awards, restricted stock unit awards, performance-based stock awards, and other forms of equity compensation, which Tocagen refers to collectively as stock awards. Additionally, the 2017 Plan provides for the grant of performance cash awards. ISOs may be granted only to employees. All other awards may be granted to employees, including officers, and to non-employee directors and consultants of Tocagen and Tocagen's affiliates.

Share Reserve. As of December 31, 2019, there were outstanding stock options covering a total of 3,178,03 shares granted under Tocagen's 2017 Plan and outstanding stock options covering a total of 1,156,897 shares that were granted under Tocagen's 2009 Plan. As of December 31, 2019, there were 543,284 shares remaining available for the grant of stock awards under Tocagen's 2017 Plan. In September 2018 and February 2019, the Compensation Committee approved amendments to the 2017 Plan pursuant to Rule 5635(c)(4) to reserve an additional 75,000 shares and 100,000 shares of Tocagen Common Stock, respectively, to be used exclusively for grants of awards to individuals who were not previously employees or non-employee directors of the Company (or following a bona fide period of non-employment with the company), as an inducement material to the individual's entry into employment with the company within the meaning of Rule 5635(c)(4). The number of shares of Tocagen Common Stock reserved for issuance under Tocagen's 2017 Plan automatically increases on January 1 of each year through and including January 1, 2027, by 4% of the total number of shares of Tocagen capital stock outstanding on December 31 of the preceding calendar year, or a lesser number of shares determined by the Tocagen Board.

No person may be granted stock awards covering more than 1,000,000 shares of Tocagen Common Stock under Tocagen's 2017 Plan during any calendar year pursuant to stock options, stock appreciation rights and other stock awards whose value is determined by reference to an increase over an exercise or strike price of at least 100% of the fair market value on the date the stock award is granted. Additionally, no person may be granted in a calendar year a performance stock award covering more than 1,000,000 shares of Tocagen Common Stock or a performance cash award having a maximum value in excess of $3.0 million. In addition, the maximum number of shares of Tocagen Common Stock subject to stock awards granted under the 2017 Plan with respect to any period commencing on the date of Tocagen's Annual Meeting of Stockholders for a particular year and ending on the day immediately prior to the date of Tocagen's Annual Meeting of Stockholders for the next subsequent year to any non-employee director, taken together with any cash fees paid by Tocagen to such non-employee director during such period for service on the Tocagen Board, will not exceed $400,000 in total value, or, with respect to such period in which a non-employee director is first appointed or elected to the Tocagen Board, $500,000. The Tocagen Board may make exceptions to this limit in extraordinary circumstances.

If a stock award granted under the 2017 Plan (i) expires or otherwise terminates without all of the shares of Tocagen Common Stock covered by such stock award having been issued or (ii) is settled in cash, the shares of Tocagen Common Stock not acquired pursuant to the stock award again will become available for subsequent issuance under the 2017 Plan. In addition, the following types of shares under the 2017 Plan may become available for the grant of new stock awards under the 2017 Plan: (1) shares that are forfeited to or repurchased by Tocagen prior to becoming fully vested; (2) shares withheld to satisfy income or employment withholding taxes; or (3) shares used to pay the exercise or purchase price of a stock award. Shares issued under the 2017 Plan will be authorized but unissued shares or reacquired shares bought by Tocagen on the open market.

Administration. The Tocagen Board, or a duly authorized committee thereof, has the authority to administer the 2017 Plan. The Tocagen Board may also delegate to one or more of Tocagen's officers the authority to (1) designate employees (other than other officers) to be recipients of certain stock awards, and (2) determine the number of shares of Tocagen Common Stock to be subject to such stock awards. Subject to the terms of the 2017 Plan, the Tocagen Board or the authorized committee, referred to herein as the plan administrator, determines recipients, dates of grant, the numbers and types of stock awards to be granted and the terms and conditions of the stock awards, including the period of their exercisability and vesting schedule applicable to a stock award. Subject to the limitations set forth below, the plan administrator will also determine the exercise price, strike price or purchase price of awards granted and the types of consideration to be paid for the award.

The plan administrator has the authority to modify outstanding awards under Tocagen's 2017 Plan. Subject to the terms of Tocagen's 2017 Plan, the plan administrator has the authority to reduce the exercise, purchase or strike price of any outstanding stock award, cancel any outstanding stock award in exchange for new stock awards, cash or other consideration, or take any other action that is treated as a repricing under generally accepted accounting principles, with the consent of any adversely affected participant.

Stock Options. ISOs and NSOs are granted pursuant to stock option agreements adopted by the plan administrator. The plan administrator determines the exercise price for a stock option, within the terms and conditions of the 2017 Plan, provided that the exercise price of a stock option generally cannot be less than 100% of the fair market value of Tocagen Common Stock on the date of grant. Options granted under the 2017 Plan vest at the rate specified by the plan administrator.

The plan administrator determines the term of stock options granted under the 2017 Plan, up to a maximum of 10 years. Unless the terms of an optionholder's stock option agreement provide otherwise, if an optionholder's service relationship with us, or any of Tocagen's affiliates, ceases for any reason other than disability, death or cause, the optionholder may generally exercise any vested options for a period of three months following the cessation of service. The option term may be extended in the event that exercise of the option following such a termination of service is prohibited by applicable securities laws or Tocagen's insider trading policy. If an optionholder's service relationship with Tocagen or any of Tocagen's affiliates ceases due to disability or death, or an optionholder dies within a certain period following cessation of service, the optionholder or a beneficiary may generally exercise any vested options for a period of 12 months in the event of disability and 18 months in the event of death. In the event of a termination for cause, options generally terminate immediately upon the termination of the individual for cause. In no event may an option be exercised beyond the expiration of its term.

Acceptable consideration for the purchase of Tocagen Common Stock issued upon the exercise of a stock option will be determined by the plan administrator and may include (1) cash, check, bank draft or money order, (2) a broker-assisted cashless exercise, (3) the tender of shares of Tocagen Common Stock previously owned by the optionholder, (4) a net exercise of the option if it is an NSO, and (5) other legal consideration approved by the plan administrator.

Unless the plan administrator provides otherwise, options generally are not transferable except by will, the laws of descent and distribution, or (subject to the approval of the plan administrator or an authorized officer) pursuant to a domestic relations order. Subject to the approval of the plan administrator or an authorized officer, an optionholder may designate a beneficiary, however, who may exercise the option following the optionholder's death.

Tax Limitations On Incentive Stock Options. The aggregate fair market value, determined at the time of grant, of Tocagen Common Stock with respect to ISOs that are exercisable for the first time by an optionholder during any calendar year under all of Tocagen's stock plans and the stock plans of any of Tocagen's affiliates may not exceed $100,000. Options or portions thereof that exceed such limit will generally be treated as NSOs. No ISO may be granted to any person who, at the time of the grant, owns or is deemed to own stock possessing more than 10% of Tocagen's total combined voting power or that of any of Tocagen's affiliates unless (1) the option exercise price is at least 110% of the fair market value of the stock subject to the option on the date of grant, and (2) the term of the ISO does not exceed five years from the date of grant.

Restricted Stock Awards. Restricted stock awards are granted pursuant to restricted stock award agreements adopted by the plan administrator. Restricted stock awards may be granted in consideration for (1) cash, check, bank draft or money order, (2) services rendered to Tocagen or Tocagen's affiliates, or (3) any other form of legal consideration acceptable to the plan administrator. Tocagen Common Stock acquired under a restricted stock award may, but need not, be subject to a share repurchase option in Tocagen's favor in accordance with a vesting schedule to be determined by the plan administrator. A restricted stock award may be transferred only upon such terms and conditions as set by the plan administrator. Except as otherwise provided in the applicable award agreement, restricted stock that has not vested will be forfeited or repurchased by Tocagen upon the participant's cessation of continuous service for any reason.

Restricted Stock Unit Awards. Restricted stock unit awards are granted pursuant to restricted stock unit award agreements adopted by the plan administrator. Restricted stock unit awards may be granted in consideration for any form of legal consideration acceptable to the plan administrator. A restricted stock unit

award may be settled by cash, delivery of stock, a combination of cash and stock as deemed appropriate by the plan administrator, or in any other form of consideration set forth in the restricted stock unit award agreement. Additionally, dividend equivalents may be credited in respect of shares covered by a restricted stock unit award. Except as otherwise provided in the applicable award agreement, restricted stock units that have not vested will be forfeited upon the participant's cessation of continuous service for any reason.

Stock Appreciation Rights. Stock appreciation rights are granted pursuant to stock appreciation right agreements adopted by the plan administrator. The plan administrator determines the strike price for a stock appreciation right, which generally cannot be less than 100% of the fair market value of Tocagen Common Stock on the date of grant. Upon the exercise of a stock appreciation right, Tocagen will pay the participant an amount equal to the product of (1) the excess of the per share fair market value of Tocagen Common Stock on the date of exercise over the strike price, multiplied by (2) the number of shares of Tocagen Common Stock with respect to which the stock appreciation right is exercised. A stock appreciation right granted under the 2017 Plan vests at the rate specified in the stock appreciation right agreement as determined by the plan administrator.

The plan administrator determines the term of stock appreciation rights granted under the 2017 Plan, up to a maximum of 10 years. Unless the terms of a participant's stock appreciation right agreement provide otherwise, if a participant's service relationship with Tocagen or any of Tocagen's affiliates ceases for any reason other than cause, disability or death, the participant may generally exercise any vested stock appreciation right for a period of three months following the cessation of service. The stock appreciation right term may be further extended in the event that exercise of the stock appreciation right following such a termination of service is prohibited by applicable securities laws. If a participant's service relationship with us, or any of Tocagen's affiliates, ceases due to disability or death, or a participant dies within a certain period following cessation of service, the participant or a beneficiary may generally exercise any vested stock appreciation right for a period of 12 months in the event of disability and 18 months in the event of death. In the event of a termination for cause, stock appreciation rights generally terminate immediately upon the occurrence of the event giving rise to the termination of the individual for cause. In no event may a stock appreciation right be exercised beyond the expiration of its term.

Performance Awards. The 2017 Plan permits the grant of performance-based stock and cash awards that vest or become payable subject to attainment of performance goals during a designated performance period.

The performance goals that may be selected include one or more of the following: (1) earnings (including earnings per share and net earnings); (2) earnings before interest, taxes and depreciation; (3) earnings before interest, taxes, depreciation and amortization; (4) earnings before interest, taxes, depreciation, amortization and legal settlements; (5) earnings before interest, taxes, depreciation, amortization, legal settlements and other income (expense); (6) earnings before interest, taxes, depreciation, amortization, legal settlements, other income (expense) and stock-based compensation; (7) earnings before interest, taxes, depreciation, amortization, legal settlements, other income (expense), stock-based compensation and changes in deferred revenue; (8) earnings before interest, taxes, depreciation, amortization, legal settlements, other income (expense), stock-based compensation, other non-cash expenses and changes in deferred revenue; (9) total stockholder return; (10) return on equity or average stockholder's equity; (11) return on assets, investment, or capital employed; (12) stock price; (13) margin (including gross margin); (14) income (before or after taxes); (15) operating income; (16) operating income after taxes; (17) pre-tax profit; (18) operating cash flow; (19) sales or revenue targets; (20) increases in revenue or product revenue; (21) expenses and cost reduction goals; (22) improvement in or attainment of working capital levels; (23) economic value added (or an equivalent metric); (24) market share; (25) cash flow; (26) cash flow per share; (27) cash balance; (28) cash burn; (29) cash collections; (30) share price performance; (31) debt reduction; (32) implementation or completion of projects or processes (including, without limitation, discovery of a preclinical drug candidate, recommendation of a drug candidate to enter a clinical trial, clinical trial initiation, clinical trial enrollment and dates, clinical trial results, regulatory filing submissions (such as IND, BLA and NDA), regulatory filing acceptances, regulatory or advisory committee interactions, regulatory approvals, and product supply); (33) stockholders' equity; (34) capital expenditures; (35) financings;

(36) operating profit or net operating profit; (37) workforce diversity; (38) growth of net income or operating income; (39) employee retention; (40) initiation of studies by specific dates; (41) budget management; (42) submission to, or approval by, a regulatory body (including, but not limited to the FDA) of an applicable filing or a product; (43) regulatory milestones; (44) progress of internal research or development programs; (45) progress of partnered programs; (46) partner satisfaction; (47) timely completion of clinical trials; (48) milestones related to research development (including, but not limited to, preclinical and clinical studies), product development and manufacturing; (49) expansion of sales in additional geographies or markets; (50) research progress, including the development of programs; (51) strategic partnerships or transactions (including in-licensing and out-licensing of intellectual property; (52) filing of patent applications and granting of patents; and (53) and other measures of performance selected by the Tocagen Board.

The performance goals may be based on a company-wide basis, with respect to one or more business units, divisions, affiliates, or business segments, and in either absolute terms or relative to the performance of one or more comparable companies or the performance of one or more relevant indices. Unless specified otherwise (1) in the award agreement at the time the award is granted or (2) in such other document setting forth the performance goals at the time the goals are established, Tocagen will appropriately make adjustments in the method of calculating the attainment of performance goals as follows: (a) to exclude restructuring and/or other nonrecurring charges; (b) to exclude exchange rate effects; (c) to exclude the effects of changes to generally accepted accounting principles; (d) to exclude the effects of any statutory adjustments to corporate tax rates; (e) to exclude the effects of items that are "unusual" in nature or occur "infrequently" as determined under generally accepted accounting principles; (f) to exclude the dilutive effects of acquisitions or joint ventures; (g) to assume that any business divested by Tocagen achieved performance objectives at targeted levels during the balance of a performance period following such divestiture; (h) to exclude the effect of any change in the outstanding shares of Tocagen Common Stock by reason of any stock dividend or split, stock repurchase, reorganization, recapitalization, merger, consolidation, spin-off, combination or exchange of shares or other similar corporate change, or any distributions to common stockholders other than regular cash dividends; (i) to exclude the effects of stock based compensation and the award of bonuses under Tocagen's bonus plans; (j) to exclude costs incurred in connection with potential acquisitions or divestitures that are required to be expensed under generally accepted accounting principles; (k) to exclude the goodwill and intangible asset impairment charges that are required to be recorded under generally accepted accounting principles; and (l) to exclude the effects of the timing of acceptance for review and/or approval of submissions to the FDA or any other regulatory body. In addition, Tocagen retains the discretion to reduce or eliminate the compensation or economic benefit due upon attainment of the goals. The performance goals may differ from participant to participant and from award to award.

Other Stock Awards. The plan administrator may grant other awards based in whole or in part by reference to Tocagen Common Stock. The plan administrator will set the number of shares under the stock award and all other terms and conditions of such awards.

Changes to Capital Structure. In the event that there is a specified type of change in Tocagen's capital structure, such as a stock split or recapitalization, appropriate adjustments will be made to (1) the class and maximum number of shares reserved for issuance under the 2017 Plan, (2) the class and maximum number of shares by which the share reserve may increase automatically each year, (3) the class and maximum number of shares that may be issued upon the exercise of ISOs, (4) the class and maximum number of shares subject to stock awards that can be granted to any person in a calendar year, and (5) the class and number of shares and exercise price, strike price, or purchase price, if applicable, of all outstanding stock awards.

Corporate Transactions. In the event of certain specified significant corporate transactions (or a change in control, as described below), the plan administrator has the discretion to take any of the following actions with respect to stock awards:

- arrange for the assumption, continuation or substitution of a stock award by a surviving or acquiring entity or parent company;

- arrange for the assignment of any reacquisition or repurchase rights held by Tocagen to the surviving or acquiring entity or parent company;
- accelerate the vesting of the stock award and provide for its termination prior to the effective time of the transaction;
- arrange for the lapse of any reacquisition or repurchase right held by us;
- cancel or arrange for the cancellation of the stock award in exchange for such cash consideration, if any, as the Tocagen Board may deem appropriate; and
- make a payment equal to the excess of (a) the value of the property the participant would have received upon exercise of the stock award immediately prior to the effective time of the transaction, over (b) the exercise price otherwise payable by the participant in connection with such exercise.

Our plan administrator is not obligated to treat all stock awards, even those that are of the same type, in the same manner.

Under the 2017 Plan, a corporate transaction is generally the consummation of (1) a sale or other disposition of all or substantially all of Tocagen's assets, (2) a sale or other disposition of more than 50% of Tocagen's outstanding securities, (3) a merger, consolidation or similar transaction following which Tocagen is not the surviving corporation, or (4) a merger, consolidation or similar transaction following which Tocagen is the surviving corporation but the shares of Tocagen's common stock outstanding immediately prior to such transaction are converted or exchanged into other property by virtue of the transaction.

Change in Control. In addition to the above, the plan administrator may provide, in an individual award agreement or in any other written agreement between a participant and Tocagen that the stock award will be subject to additional acceleration of vesting and exercisability in the event of a change in control. Under the 2017 Plan, a change in control is generally (1) the acquisition by a person or entity of more than 50% of Tocagen's combined voting power other than by merger, consolidation or similar transaction; (2) a consummated merger, consolidation or similar transaction immediately after which Tocagen's stockholders cease to own more than 50% of the combined voting power of the surviving entity (or its parent); (3) a consummated sale, lease, exclusive license or other disposition of all or substantially all of Tocagen's assets; (4) a complete dissolution or liquidation of the company, except for a liquidation into a parent corporation; or (5) when a majority of the Tocagen Board becomes comprised of individuals who were not serving on the Tocagen Board on the date of adoption of the 2017 Plan, or the incumbent board, or whose nomination, appointment, or election was not approved by a majority of the incumbent board then still in office.

Amendment and Termination. The Tocagen Board has the authority to amend, suspend, or terminate Tocagen's 2017 Plan, provided that such action does not materially impair the existing rights of any participant without such participant's written consent. No ISOs may be granted after the 10th anniversary of the date Tocagen's Board adopted Tocagen's 2017 Plan.

2009 Equity Incentive Plan

The Tocagen Board and Tocagen's stockholders approved Tocagen's 2009 Plan in March 2009. The 2009 Plan was subsequently amended by the Tocagen Board and stockholders, most recently in November 2016. As of December 31, 2019, there were outstanding stock options covering a total of 1,156,897 shares that were granted under Tocagen's 2009 Plan and there were no additional shares available for grant under the 2009 Plan.

No additional awards will be granted under the 2009 Plan, and all outstanding awards granted under the 2009 Plan that are repurchased, forfeited, expire or are canceled will become available for grant under the 2017 Plan in accordance with its terms.

2017 Employee Stock Purchase Plan

The Tocagen Board and stockholders adopted the Employee Stock Purchase Plan ("ESPP") in March 2017 and the ESPP became effective on April 13, 2017, in connection with Tocagen's initial public offering. The purpose of the ESPP is to retain the services of new employees and secure the services of new and existing employees while providing incentives for such individuals to exert maximum efforts toward Tocagen's success and that of Tocagen's affiliates.

Share Reserve. As of December 31, 2019, 678,827 shares of Tocagen Common Stock were authorized under the ESPP for issuance pursuant to purchase rights granted to Tocagen's employees or to employees of any of Tocagen's designated affiliates. As of December 31, 2019, 191,972 shares of Tocagen Common Stock had been issued under the ESPP and there were 486,855 shares available for future issuance under the ESPP.

The number of shares of Tocagen Common Stock reserved for issuance will automatically increase on January 1 of each calendar year through and including January 1, 2027 by the least of (a) 1% of the total number of shares of Tocagen Common Stock outstanding on December 31 of the preceding calendar year, (b) 300,000 shares, or (c) a number determined by the Tocagen Board that is less than (a) and (b). The ESPP is intended to qualify as an "employee stock purchase plan" within the meaning of Section 423 of the Code.

Administration. The Tocagen Board has delegated its authority to administer the ESPP to Tocagen's Compensation Committee. The ESPP is implemented through a series of offerings of purchase rights to eligible employees. Under the ESPP, Tocagen may specify offerings with durations of not more than 27 months, and may specify shorter purchase periods within each offering. Each offering will have one or more purchase dates on which shares of Tocagen Common Stock will be purchased for employees participating in the offering. An offering may be terminated under certain circumstances.

Payroll Deductions. Generally, all regular employees, including executive officers, employed by Tocagen or by any of Tocagen's designated affiliates, may participate in the ESPP and may contribute, normally through payroll deductions, up to 15% of their earnings for the purchase of Tocagen Common Stock under the ESPP. Unless otherwise determined by the Tocagen Board, common stock will be purchased for accounts of employees participating in the ESPP at a price per share equal to the lower of (a) 85% of the fair market value of a share of Tocagen Common Stock on the first date of an offering or (b) 85% of the fair market value of a share of Tocagen Common Stock on the date of purchase.

Limitations. Employees may have to satisfy one or more of the following service requirements before participating in the ESPP, as determined by the Tocagen Board: (a) customarily employed for more than 20 hours per week, (b) customarily employed for more than five months per calendar year or (c) continuous employment with Tocagen or one of Tocagen's affiliates for a period of time (not to exceed two years). No employee may purchase shares under the ESPP at a rate in excess of $25,000 worth of Tocagen Common Stock based on the fair market value per share of Tocagen Common Stock at the beginning of an offering for each year such a purchase right is outstanding. Finally, no employee will be eligible for the grant of any purchase rights under the ESPP if immediately after such rights are granted, such employee has voting power over 5% or more of Tocagen's outstanding capital stock measured by vote or value pursuant to Section 424(d) of the Code.

Changes to Capital Structure. In the event that there occurs a change in Tocagen's capital structure through such actions as a stock split, merger, consolidation, reorganization, recapitalization, reincorporation, stock dividend, dividend in property other than cash, large nonrecurring cash dividend, liquidating dividend, combination of shares, exchange of shares, change in corporate structure or similar transaction, the Tocagen Board will make appropriate adjustments to (a) the class and number of shares reserved under the ESPP, (b) the class and maximum number of shares by which the share reserve may increase automatically each year, (c) the class and number of shares and purchase price of all outstanding offerings and purchase rights and (d) the class and number of shares that are the subject of the purchase limits under each ongoing offering.

Corporate Transactions. In the event of certain significant corporate transactions, including the consummation of: (1) a sale or other disposition of all or substantially all of Tocagen's assets, (2) the sale or other disposition of more than 50% of Tocagen's outstanding securities, (3) a merger, consolidation or similar transaction where Tocagen does not survive the transaction, and (4) a merger, consolidation or similar transaction where Tocagen does survive the transaction but the shares of Tocagen Common Stock outstanding immediately prior to such transaction are converted or exchanged into other property by virtue of the transaction, any then-outstanding rights to purchase Tocagen's stock under the ESPP may be assumed, continued or substituted for by any surviving or acquiring entity (or its parent company). If the surviving or acquiring entity (or its parent company) elects not to assume, continue or substitute for such purchase rights, then the participants' accumulated payroll contributions will be used to purchase shares of Tocagen Common Stock within 10 business days prior to such corporate transaction, and such purchase rights will terminate immediately after such purchase.

Plan Amendments, Termination. The Tocagen Board has the authority to amend or terminate Tocagen's ESPP, provided that except in certain circumstances any such amendment or termination may not materially impair any outstanding purchase rights without the holder's consent. Tocagen will obtain stockholder approval of any amendment to Tocagen's ESPP as required by applicable law or listing requirements.

In December 2019, the Tocagen Compensation Committee suspended the ESPP, such that no new offerings of purchase rights under the ESPP will begin and no new purchase rights under the ESPP will be granted until the Tocagen Board or the Tocagen Compensation Committee specifically authorizes otherwise.

Director Compensation

The following table sets forth in summary form information concerning the compensation that Tocagen paid or awarded during the year ended December 31, 2019 to each of Tocagen's directors that was not also a named executive officer:

Name[1]	Fees Earned or Paid in Cash ($)	Option Awards ($)[2][3]	Total ($)
Faheem Hasnain	66,750	59,245	125,995
Franklin M. Berger	46,125	59,245	105,370
Thomas Darcy	26,250	59,245	85,495
Paul Schimmel, Ph.D.	37,500	59,245	96,745
David Parkinson, M.D.	31,875	59,245	91,120
Lori Kunkel, M.D. (4)	105,852	272,860	378,712
Harry Gruber, M.D. (5)	—	—	—

(1) Mr. Duvall did not earn compensation during 2019 for his services on the Tocagen Board. Mr. Duvall's compensation is fully reflected in the *"Executive Compensation of Tocagen—Summary Compensation Table*" above.

(2) In accordance with SEC rules, this column reflects the aggregate grant date fair value of the stock option awards granted in 2019 computed in accordance with FASB ASC Topic 718. Assumptions used in the calculation of these amounts are described in Note 7 to Tocagen's audited financial statements included in its Annual Report on Form 10-K for the year ended December 31, 2019. These amounts do not reflect the actual economic value that will be realized by the non-employee director upon the vesting of the stock option awards, the exercise of the stock option awards or the sale of the Tocagen Common Stock underlying such stock option awards.

(3) As of December 31, 2019, the aggregate number of shares outstanding under all options to purchase Tocagen Common Stock held by its non-employee directors were: Mr. Hasnain: 117,245 shares; Mr. Berger: 93,999 shares; Mr. Darcy: 135,360 shares; Dr. Schimmel: 75,432 shares; Dr. Parkinson: 74,295 shares; and Dr. Kunkel: 107,787 shares.

(4) Dr. Kunkel served on the Tocagen Board until November 2018 and rejoined the Tocagen Board in April 2019. From November 2018 until April 2019, Dr. Kunkel served as the company's acting Chief Medical Officer and earned $87,500 in 2019.
(5) Dr. Gruber resigned from the Tocagen Board in February 2020. Dr. Gruber did not earn compensation during 2019 for his services on the Tocagen Board.

The Tocagen Board adopted a director compensation policy in March 2017 that became effective in connection with Tocagen's initial public offering, which was amended in February 2018, and is applicable to all of Tocagen's non-employee directors. This compensation policy provides that each such non-employee director will receive the following compensation for service on the Tocagen Board:

- an annual cash retainer of $35,000;
- an additional cash retainer of $30,000 to the chairman of the Tocagen Board;
- an additional cash retainer of $20,000 to the lead independent director of the Tocagen Board;
- an additional annual cash retainer of $7,500, $5,000 and $4,000 for service as a member of the audit committee, compensation committee and the nominating and corporate governance committee, respectively;
- an additional annual cash retainer of $15,000, $10,000 and $7,500 for service as chairman of the audit committee, compensation committee and the nominating and corporate governance committee, respectively;
- an initial option grant to purchase 30,000 shares of Tocagen Common Stock for each non-employee director who first joins the Tocagen Board, on the date of commencement of service on the Tocagen Board, vesting over a three year period following the grant date; and
- an annual option grant to purchase 20,000 shares of Tocagen Common Stock for each non-employee director serving on the Tocagen Board on the date of Tocagen's annual stockholder meeting, vesting one year following the grant date (in addition, each non-employee director who first joins the Tocagen Board other than at the annual stockholder meeting will receive an annual option grant pro rated for the number of months remaining until the next annual stockholder meeting).

Each of the option grants described above will vest and become exercisable subject to the director's continuous service to Tocagen, provided that each option will vest in full upon a change in control (as defined under Tocagen's 2017 Plan). The term of each option will be 10 years, subject to earlier termination as provided in the 2017 Plan, except that the post-termination exercise period will be for up to 12 months from the date of termination, if such termination is other than for death, disability or cause. The options will be granted under our 2017 Plan, the terms of which are described in more detail above under *"Executive Compensation of Tocagen—Equity Benefit Plans—2017 Equity Incentive Plan*."

The cash retainer for the fourth quarter of 2019 for Tocagen's non-employee directors, including the retainer for service on the Tocagen Board, the retainer for services as the chairman of the board, the retainer for service as the lead independent director of the board, the retainer for committee membership and the retain for service as the chairmen for such committees, was paid in January 2020 in the form of a restricted stock unit ("RSU") grant. The RSU awards were granted on January 10, 2020 to our non-employee directors as follows: Mr. Hasnain: 35,449 RSUs, Mr. Berger: 24,496 RSUs, Mr. Darcy: 13,941 RSUs, Dr. Schimmel: 19,915 RSUs, Dr. Parkinson: 16,928 RSUs, and Dr. Kunkel 15,932 RSUs. Each RSU award's grant date value was $0.63 per share and 100% of the RSUs vest upon a change in control event.

EXECUTIVE COMPENSATION OF FORTE

Forte's President and Chief Executive Officer, Paul A. Wagner, and Chief Financial Officer, Antony Riley, will each become an executive officer of the combined company, referred to in this section as Forte's "named executive officers."

Summary Compensation Table

The following table shows the compensation earned by Forte's named executive officers for the fiscal years ended December 31, 2019 and 2018.

Name and principal position	Year	Salary ($)	Bonus ($)	Option awards ($)(1)	All other compensation ($)	Total ($)
Paul A. Wagner(2)	2019	350,000	— (3)	—	—	350,000
President and Chief Executive Officer	2018	—	—	260,454	—	260,454
Antony Riley(4)	2019	—	—	—	—	—
Chief Financial Officer	2018	—	—	—	—	—

(1) In accordance with SEC rules, this column reflects the aggregate grant date fair value of the stock option awards granted during 2018, computed in accordance with FASB ASC 718. These amounts do not reflect the actual economic value that will be realized by the named executive officer upon the vesting of the stock options, the exercise of the stock options, or the sale of the common stock underlying such stock options.

(2) Dr. Wagner's commencement date as Forte's President and Chief Executive Officer was January 19, 2018. Dr. Wagner waived all cash compensation for 2018.

(3) On February 9, 2020, Forte's board of directors approved a bonus payment to Dr. Wagner in the amount of $175,000, equal to 100% of Dr. Wagner's target bonus for 2019, conditioned and effective upon the closing of the Merger and upon Dr. Wagner remaining employed with the Company through the closing of the Merger.

(4) Mr. Riley's commencement date as Forte's Chief Financial Officer was March 23, 2020.

Compensation Program Overview

Forte's compensation program is designed to encourage Forte's named executive officers to continually achieve Forte's short-term and long-term corporate objectives while effectively managing business risks and challenges. Forte provides what it believes is a competitive total compensation package to its named executive officers through a combination of base salary, an annual performance-based bonus and long-term equity-based incentives. Forte's board of directors historically has determined Forte's named executive officer's compensation.

Annual Base Salary

The annual base salaries for Forte's named executive officers as of December 31, 2019, are provided below.

Name	2019 Base Salary ($)
Paul A. Wagner	350,000(1)
Antony Riley	— (2)

(1) On February 20, 2020, subject to the closing of the Merger, Forte's board of directors approved an increase in Dr. Wagner's annual base salary in the amount of $190,000, to $540,000.

(2) Mr. Riley's commencement date as Forte's Chief Financial Officer was March 23, 2020. Mr. Riley's current annual base salary is $340,000.

Bonus Compensation

As described in more detail below under "*Executive Compensation of Forte—Agreements with Forte's Named Executive Officers*," each of Forte's named executive officers are eligible for an annual bonus opportunity equal to a percentage of his annual base salary. The annual bonus opportunity (expressed as a percentage and as a dollar amount) for Forte's named executive officers as of December 31, 2019, is are provided below.

Name	Annual Bonus Opportunity (%)	Annual Bonus Opportunity ($)
Paul A. Wagner	50	175,000(1)
Antony Riley	— (2)	—

(1) On February 9, 2020, subject to the closing of the Merger, Forte's board of directors approved an increase in Dr. Wagner's annual base salary in the amount of $190,000, to $540,000. Dr. Wagner's annual bonus percentage was not changed at that time, but the dollar amount of his annual bonus opportunity correspondingly will be increased to $270,000.

(2) Mr. Riley's current annual base bonus opportunity is 35% of his annual base salary, or $119,000.

Equity-Based Incentive Awards

Forte's equity-based incentive awards are designed to align Forte's interests and those of Forte's stockholders with those of Forte's employees and consultants, including Forte's named executive officers. Forte's board of directors is responsible for approving equity grants to Forte's employees and consultants, including Forte's named executive officers. To date, stock option awards are the only form of equity awards Forte has granted to its named executive officers. Forte has granted equity incentive awards under the terms of Forte's 2018 Equity Incentive Plan, the Forte Plan. The terms of the Forte Plan are described below under "*Executive Compensation of Forte—Equity Benefit Plans*."

All options are granted with an exercise price per share that is no less than the fair market value of Forte's common stock on the date of grant of such award. Forte's stock option awards generally vest over a four-year period and may be subject to acceleration of vesting and exercisability under certain termination and change in control events. See "*Executive Compensation of Forte—Outstanding Equity Awards at Fiscal Year-End*."

In December 2018, the Company granted Dr. Wagner a stock option award covering 2,250,000 shares of Forte's common stock in connection with his continued employment as Forte's President and Chief Executive Officer. This award was granted under the Forte Plan and a stock option agreement, and has a per share exercise price equal to $0.18, the fair market value of Forte's common stock on the date of grant of the option. 250,000 of the shares subject to this award were scheduled to vest upon the transition of the IND for Forte's lead product candidate to Forte and the occurrence of a Type C meeting with the FDA by June 30, 2019. On February 9, 2020, Forte's board of directors certified this vesting condition as having been satisfied and the applicable 250,000 shares became vested. 1,000,000 additional shares subject to this award are scheduled to vest upon each of the following events (1) the start of a Phase 2b/3 trial for Forte's lead product candidate; and (2) completion of a Phase 2b/3 trial for the Company's lead product candidate. In the event a "change in control" (as such term is defined in the Forte Plan) while Dr. Wagner is providing services to Forte, 100% of the unvested shares subject to the award will vest and become immediately exercisable. As described in more detail below under "*Executive Compensation of Forte—Agreements with Forte's Named Executive Officers*," Dr. Wagner is also eligible for acceleration of his stock option awards in the event he is terminated in certain qualifying circumstances.

In connection with the commencement of his employment, Forte will recommend that its board of directors grant Mr. Riley stock option awards covering 175,000 shares of Forte's common stock. The awards are anticipated to be granted under the Forte Plan and a stock option agreement, and will be granted at a price per share equal to the fair market value per share of the Common Stock on the date of grant. An award of 50,000

shares is anticipated to be granted prior to the closing of the Merger, and to be scheduled to vest upon the closing of the Merger. An award covering the remaining shares is anticipated to be granted following the closing of the Merger, and to be scheduled to vest as to 1/4th of the shares on the one year anniversary of the date vesting begins and as to 1/48th of the shares each of the 36 months thereafter. As described in more detail below under "*Executive Compensation of Forte—Agreements with Forte's Named Executive Officers*," Mr. Riley is also eligible for acceleration of his stock option awards in the event he is terminated in certain qualifying circumstances.

Agreements with Forte's Named Executive Officers

Forte has entered into offer letters with each of its named executive officers, the Offer Letters. The Offer Letters supersede all other or prior agreements with respect to Forte's named executive officers' employment terms. Employment under the Offer Letters is at will and may be terminated at any time by Forte or by the applicable named executive officer. Pursuant to the Offer Letters, each named executive officer is entitled to: (i) an annual base salary, currently $350,000 in the case of Dr. Wagner, increasing to $540,000 upon the closing of the Merger and $340,000 in the case of Mr. Riley, and (ii) a discretionary annual bonus, 50% of his annual base salary in the case of Dr. Wagner and 35% of his annual base salary in the case of Mr. Riley, based on achievement of performance objectives to be determined by Forte's board of directors. If Forte terminates a named executive officer's employment without cause (other than due to his death or disability) or if a named executive officer resigns for good reason at any time, then the named executive officer is entitled to receive (A) continuing payments of base salary at the rate in effect at the time of termination, less applicable withholdings, for a period following his employment termination date of 12 months in the case of Dr. Wagner and 9 months in the case of Mr. Riley, (B) reimbursement for the cost of continuation of health coverage for him and his eligible dependents pursuant to the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended, until the earlier of (1) following termination of his employment, for 12 months in the case of Dr. Wagner and 9 months in the case of Mr. Riley or (2) the date he and his eligible dependents are no longer eligible for COBRA, and (C) if the termination of his employment occurs on or within 12 months following a "change of control" (as defined in the Forte Plan), vesting acceleration of 100% of any outstanding stock options. The foregoing benefits are conditioned upon Dr. Wagner or Mr. Riley, as applicable, signing and not revoking a release of claims with Forte within 60 days following his employment termination date.

Potential Payments Upon Termination or Change of Control

Regardless of the manner in which a named executive officer's service terminates, that named executive officer is entitled to receive amounts earned during his term of service, including unpaid salary and unused vacation, as applicable. In addition, each named executive officer is entitled to receive certain benefits upon Forte's termination of his employment without cause or his resignation for good reason, as provided above under "*Executive Compensation of Forte—Agreements with Forte's Named Executive Officers*."

Dr. Wagner holds, and Mr. Riley is expected to hold, stock options granted subject to the general terms of the Forte Plan. A description of the termination and change in control provisions in the Forte Plan and applicable to the stock options granted to Forte's named executive officers is provided below under "*Executive Compensation of Forte—Equity Benefit Plans*" and "*Executive Compensation of Forte—Outstanding Equity Awards at Fiscal Year-End*" and above under "*Executive Compensation of Forte—Equity-Based Incentive Awards*" and "*Executive Compensation of Forte—Agreements with Forte's Named Executive Officers."*

Outstanding Equity Awards at Fiscal Year-End

The following table sets forth certain information regarding equity awards granted to Forte's named executive officers that remain outstanding as of December 31, 2019:

	Option Awards[1]					
	Grant Date	Number of Securities Underlying Unexercised Options Exercisable (#)	Number of Securities Underlying Unexercised Options Unexercisable (#)	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Unearned Options (#)	Option Exercise Price ($)[2]	Option Expiration Date
Paul A. Wagner	12/19/2018	250,000[3]	—	2,000,000[4]	$ 0.18	12/19/2028
Antony Riley[5]	—	—	—	—	$	

(1) All of the outstanding stock option awards were granted under and subject to the terms of the Forte Plan, described below under "*Executive Compensation of Forte—Equity Benefit Plans*."

(2) The stock option awards were granted with a per share exercise price equal to the fair market value of one share of Forte's common stock on the date of grant, as determined in good faith by Forte's board of directors.

(3) 250,000 of the shares subject to this award were scheduled to vest upon the transition of the IND for Forte's lead product candidate to Forte and the occurrence of a Type C meeting with the FDA by June 30, 2019. On February 9, 2020, Forte's board of directors certified this vesting condition as satisfied and the applicable portion of the award became vested.

(4) 1,000,000 additional shares subject to this award are scheduled to vest upon each of the following events (1) the start of a Phase 2b/3 trial for Forte's lead product candidate; and (2) completion of a Phase 2b/3 trial for the Company's lead product candidate. In the event a change in control while Dr. Wagner is providing services to Forte, 100% of the unvested shares subject to the award will vest and become immediately exercisable.

(5) It is anticipated that Mr. Riley will be granted stock option awards covering 175,000 shares of Forte's common stock with an exercise price per share equal to the fair market value per share of the Forte Common Stock on the date of grant. An award of 50,000 shares is anticipated to be granted prior to the closing of the Merger, and to be scheduled to vest upon the closing of the Merger as to 1/4th of the shares on the one year anniversary of the date vesting begins and as to 1/48th of the shares each of the 36 months thereafter. An award covering the remaining shares (adjusted to take into account the Exchange Ratio and the Reverse Split) is anticipated to be granted following the closing of the Merger, and to be scheduled to vest as to 1/4th of the shares on the one year anniversary of the date vesting begins and as to 1/48th of the shares each of the 36 months thereafter.

Perquisites and Health and Welfare Benefits

Forte's named executive officers, during their employment with us, are eligible to participate in Forte's employee benefit plans, including Forte's medical, dental, group term life, disability and accidental death and dismemberment insurance plans, in each case on the same basis as all of Forte's other employees.

Forte generally does not provide perquisites or personal benefits to Forte's named executive officers, except in limited circumstances. Forte's board of directors may elect to adopt qualified or nonqualified benefit plans in the future if it determines that doing so is in Forte's best interests.

Retirement Benefits and Nonqualified Deferred Compensation

Forte does not maintain any plan that provides for the payment of retirement benefits, or benefits that will be paid primarily following retirement. Forte does not maintain nonqualified deferred compensation plans. Forte's board of directors may elect to provide Forte's officers and other employees with such benefits in the future if it determines that doing so is in Forte's best interests.

Equity Benefit Plans

2018 Equity Incentive Plan

The Forte Plan was originally adopted by Forte's board of directors in January 2018 and was most recently amended in November 2018. Forte's stockholders originally approved the Forte Plan in January 2018 and approved the most recent amendment to the Forte Plan in November 2018.

The 2018 Plan allows Forte to provide incentive stock options, within the meaning of Section 422 of the Code, nonstatutory stock options, stock appreciation rights, restricted stock awards and restricted stock units (each, an "award" and the recipient of such award, a "participant") to eligible employees, directors, officers and consultants of Forte and any parent or subsidiary of Forte. Following the closing of the Merger, Forte's Plan will continue to govern the terms and conditions of the outstanding awards previously granted under Forte's Plan.

As of December 31, 2019, stock options covering 2,450,000 shares of Forte's common stock were outstanding under the Forte Plan and no other awards were outstanding under the Forte Plan.

Plan Administration. Forte's Plan is administered by its board of directors or one or more committees appointed by its board of directors. Different committees may administer Forte's Plan with respect to different service providers. The administrator has all authority and discretion necessary or appropriate to administer Forte's Plan and to control its operation, including the authority to construe and interpret the terms of Forte's Plan and the awards granted under Forte's Plan. The administrator's decisions are final and binding on all participants and any other persons holding awards.

The administrator's powers include the power to institute an exchange program under which (i) outstanding awards are surrendered or cancelled in exchange for awards of the same type (which may have higher or lower exercise prices and different terms), awards of a different type or cash, (ii) participants would have the opportunity to transfer any outstanding awards to a financial institution or other person or entity selected by the administrator or (iii) the exercise price of an outstanding award is increased or reduced. The administrator's powers also include the power to prescribe, amend and rescind rules and regulations relating to Forte's Plan, to modify or amend each award and to make all other determinations deemed necessary or advisable for administering Forte's Plan.

Eligibility. Employees, officers, directors and consultants of Forte or its parent or subsidiary companies are eligible to receive awards, provided such consultants render bona fide services not in connection with the offer and sale of securities in a capital-raising transaction and do not directly promote or maintain a market for its securities, in each case, within the meaning of Form S-8 promulgated under the U.S. securities laws. Only its employees or employees of its parent or subsidiary companies are eligible to receive incentive stock options.

Stock Options. Stock options may be granted under the Forte Plan. The exercise price of options granted under the Forte Plan must at least be equal to the fair market value of Forte's common stock on the date of grant. The term of an option may not exceed ten years. With respect to any participant who owns more than 10% of the voting power of all classes of Forte's outstanding stock, the term of an incentive stock option granted to such participant must not exceed five years and the exercise price must equal at least 110% of the fair market value on the grant date. The administrator will determine the methods of payment of the exercise price of an option, which may include cash, shares or other property acceptable to the administrator, as well as other types of consideration permitted by applicable law. After the termination of service of an employee, director or consultant, they may exercise their option for the period of time stated in their option agreement. In the absence of a specified time in an award agreement, if termination is due to death or disability, the option will remain exercisable for twelve months. In all other cases, in the absence of a specified time in an award agreement, the option will remain exercisable for three months following the termination of service. An option may not be exercised later than the expiration of its term. Subject to the provisions of the Forte Plan, the administrator determines the other terms of options.

Stock Appreciation Rights. Stock appreciation rights may be granted under the Forte Plan. Stock appreciation rights allow the recipient to receive the appreciation in the fair market value of Forte's common stock between the exercise date and the date of grant. Stock appreciation rights may not have a term exceeding ten years. After the termination of service of an employee, director or consultant, they may exercise their stock appreciation right for the period of time stated in their stock appreciation rights agreement. In the absence of a specified time in an award agreement, if termination is due to death or disability, the stock appreciation rights will remain exercisable for twelve months. In all other cases, in the absence of a specified time in an award agreement, the stock appreciation rights will remain exercisable for three months following the termination of service. However, in no event may a stock appreciation right be exercised later than the expiration of its term. Subject to the provisions of the Forte Plan, the administrator determines the other terms of stock appreciation rights, including when such rights become exercisable and whether to pay any increased appreciation in cash or with shares of Forte's common stock, or a combination thereof, except that the per share exercise price for the shares to be issued pursuant to the exercise of a stock appreciation right will be no less than 100% of the fair market value per share on the date of grant.

Restricted Stock. Restricted stock may be granted under the Forte Plan. Restricted stock awards are grants of shares of Forte's common stock that vest in accordance with terms and conditions established by the administrator. The administrator will determine the number of shares of restricted stock granted to any employee, director or consultant and, subject to the provisions of the Forte Plan, will determine the terms and conditions of such awards. The administrator may impose whatever conditions to vesting it determines to be appropriate (for example, the administrator may set restrictions based on the achievement of specific performance goals or continued service to us); provided, however, that the administrator, in its sole discretion, may accelerate the time at which any restrictions will lapse or be removed. Recipients of restricted stock awards generally will have voting and dividend rights with respect to such shares upon grant without regard to vesting, unless the administrator provides otherwise. Shares of restricted stock that do not vest are subject to Forte's right of repurchase or forfeiture.

Restricted Stock Units. RSUs may be granted under Forte's Plan. Subject to the terms and conditions of Forte's Plan and the individual award agreement, the administrator determines the terms and conditions of RSUs, including the vesting criteria, which, depending on the extent to which the criteria are met, will determine the number of RSUs that will be paid to a participant. The administrator may set vesting criteria based on the achievement of Company-wide, business unit or individual goals (including continued employment or service), applicable federal or state securities laws or any other basis determined by the administrator in its discretion. Notwithstanding the foregoing, the administrator, in its sole discretion, may accelerate the time at which any vesting requirements will be deemed satisfied.

Performance Units and Performance Shares. Performance units and performance shares may be granted under the Forte Plan Performance units and performance shares are awards that will result in a payment to a participant only if performance goals established by the administrator are achieved or the awards otherwise vest. The administrator will establish performance objectives or other vesting criteria in its discretion, which, depending on the extent to which they are met, will determine the number or the value of performance units and performance shares to be paid out to participants. The administrator may set performance objectives based on the achievement of company-wide, divisional, business unit or individual goals (including continued employment or service), applicable federal or state securities laws or any other basis determined by the administrator in its discretion. After the grant of a performance unit or performance share, the administrator, in its sole discretion, may reduce or waive any performance criteria or other vesting provisions for such performance units or performance shares. Performance units shall have an initial dollar value established by the administrator on or prior to the grant date. Performance shares shall have an initial value equal to the fair market value of Forte's common stock on the grant date. The administrator, in its sole discretion, may pay earned performance units or performance shares in the form of cash, in shares or in some combination thereof.

Non-transferability of Awards. Unless determined otherwise by the administrator, awards may not be sold, pledged, assigned, hypothecated or otherwise transferred in any manner other than by will or by the laws of

descent and distribution. In addition, during an applicable participant's lifetime, only that participant may exercise their award. If the administrator makes an award transferable, such award may only be transferred (i) by will, (ii) by the laws of descent and distribution or (iii) as permitted by Rule 701 of the Securities Act.

Certain Adjustments. If there is a dividend or other distribution (whether in the form of cash, shares, other securities or other property), recapitalization, stock split, reverse stock split, reorganization, merger, consolidation, split-up, spin-off, combination, repurchase, exchange of shares or its other securities or other change in its corporate structure affecting the shares, the administrator will make proportionate adjustments to the number and class of shares that may be delivered under Forte's Plan or the number, type and price of shares covered by each outstanding award. The administrator's determination regarding such adjustments will be final, binding and conclusive.

Dissolution or Liquidation. In the event of its proposed dissolution or liquidation, the administrator will notify each participant as soon as practicable prior to the effective date of such proposed transaction. To the extent it has not been previously exercised, an award will terminate immediately prior to the consummation of such proposed action.

Merger and Change of Control. In the event of its merger with or into another corporation or entity or a "change in control" (as defined in Forte's Plan), each outstanding award will be treated as the administrator determines, including, without limitation, that (i) awards will be assumed, or substantially equivalent awards will be substituted, by the acquiring or succeeding corporation (or an affiliate thereof) with appropriate adjustments as to the number and kind of shares and prices; (ii) upon written notice to a participant, the participant's awards will terminate upon or immediately prior to the consummation of such merger or change in control; (iii) outstanding awards will vest and become exercisable, realizable or payable, or restrictions applicable to an award will lapse, in whole or in part, prior to or upon consummation of such merger or change in control, and, to the extent the administrator determines, terminate upon or immediately prior to the effectiveness of such merger or change in control; (iv) (A) the termination of an award in exchange for an amount of cash or property, if any, equal to the amount that would have been attained upon the exercise of such award or realization of the participant's rights as of the date of the occurrence of the transaction (and, for the avoidance of doubt, if as of the date of the occurrence of the transaction the administrator determines in good faith that no amount would have been attained upon the exercise of such award or realization of the participant's rights, then such award may be terminated by us without payment) or (B) the replacement of such award with other rights or property selected by the administrator in its sole discretion; or (vi) any combination of the foregoing. The administrator will not be obligated to treat all awards, all awards a participant holds or all awards of the same type, similarly.

In the event an award is not assumed or substituted in the event of a merger or change in control, the participant will fully vest in and have the right to exercise all of his or her outstanding options and stock appreciation rights, including shares as to which such awards would not otherwise be vested or exercisable, all restrictions on restricted stock and RSUs will lapse, and, with respect to awards with performance-based vesting, all performance goals or other vesting criteria will be deemed achieved at 100% of target levels and all other terms and conditions met. In additional, the administrator will notify each participant in writing or electronically that the option or stock appreciation right, as applicable, will be exercisable for a period of time determined by the administrator in its sole discretion and the option or stock appreciation right, as applicable, will terminate upon the expiration of such period.

Amendment and Termination. Its board of directors may, at any time, terminate or amend Forte's Plan in any respect, including, without limitation, amendment of any form of award agreement or instrument to be executed pursuant to Forte's Plan. To the extent necessary and desirable to comply with applicable laws, we will obtain stockholder approval of any amendment to Forte's Plan. No amendment or alteration of Forte's Plan will impair the rights of a participant, unless mutually agreed otherwise between the participant and the administrator in writing.

RELATED PARTY TRANSACTIONS OF THE COMBINED COMPANY

Described below are any transactions occurring since January 1, 2018 and any currently proposed transactions to which either Tocagen or Forte was a party and in which

- the amounts involved exceeded or will exceed the lesser of $120,000 or 1% of the average of Tocagen or Forte's total assets, as applicable, at year-end for the last two completed fiscal years; and
- a director, executive officer, holder of more than 5% of the outstanding capital stock of Tocagen or Forte, or any member of such person's immediate family had or will have a direct or indirect material interest.

In addition to the transactions described below, please see the compensation agreements and other arrangements described under the sections titled "*The Merger—Interests of the Tocagen Directors and Executive Officers in the Merger*" beginning on page 125 of this proxy statement/prospectus/information statement and "*The Merger—Interests of the Forte Directors and Executive Officers in the Merger*" beginning on page 130 of this proxy statement/prospectus/information statement.

Tocagen Transactions

Employment Arrangements

Tocagen currently has written employment agreements with Tocagen's executive officers. For information about Tocagen's employment agreements with Tocagen's named executive officers, refer to *"Executive Compensation of Tocagen—Agreements with Tocagen's Named Executive Officers.*"

Lori Kunkel, M.D. served as a Tocagen's acting Chief Medical Officer from November 2018 until April 2019. During such periods, Dr. Kunkel received a monthly amount of $25,000 for her service. In addition, in January 2019, the Compensation Committee granted to Dr. Kunkel an option to purchase 35,000 shares of common stock. The option was granted under Tocagen's 2017 Plan and has a per share exercise price equal to $9.27, the closing price of Tocagen Common Stock as reported on The Nasdaq Global Select Market on January 11, 2019, the date of grant. The option became fully vested in connection with the termination of her service as acting Chief Medical Officer on April 15, 2019.

Stock Options Granted to Executive Officers and Directors

Tocagen has granted stock options to Tocagen's executive officers and directors. For information about Tocagen's stock option awards to Tocagen's named executive officers and Tocagen's directors, refer to "*Executive Compensation of Tocagen—Outstanding Equity Awards at Fiscal Year-End*" and "*Executive Compensation of Tocagen—Director Compensation.*"

Indemnification Agreements

Tocagen has entered, and intend to continue to enter, into separate indemnification agreements with Tocagen's directors and executive officers, in addition to the indemnification provided for in Tocagen's amended and restated bylaws. These agreements, among other things, require Tocagen to indemnify Tocagen's directors and executive officers for certain expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by a director or executive officer in any action or proceeding arising out of their services as one of Tocagen's directors or executive officers or as a director or executive officer of any other company or enterprise to which the person provides services at Tocagen's request. Tocagen believes that these bylaw provisions and indemnification agreements are necessary to attract and retain qualified persons as directors and officers.

The limitation of liability and indemnification provisions in Tocagen's amended and restated certificate of incorporation and amended and restated bylaws may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duties. They may also reduce the likelihood of derivative litigation against directors and officers, even though an action, if successful, might benefit Tocagen and Tocagen's stockholders. A stockholder's investment may decline in value to the extent Tocagen pays the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions.

Related-Person Transactions Policy and Procedures

Tocagen has adopted a written related-person transactions policy that sets forth Tocagen's policies and procedures regarding the identification, review, consideration and oversight of "related-person transactions." For purposes of Tocagen's policy only, a "related-person transaction" is a transaction, arrangement or relationship (or any series of similar transactions, arrangements or relationships) in which Tocagen and any "related person" are participants involving an amount that exceeds $120,000.

Transactions involving compensation for services provided to Tocagen as an employee, consultant or director are not considered related-person transactions under this policy. A related person is any executive officer, director or a holder of more than 5% of Tocagen's common stock, including any of their immediate family members and any entity owned or controlled by such persons.

Under the policy, where a transaction has been identified as a related-person transaction, management must present information regarding the proposed related-party transaction to Tocagen's Audit Committee (or, where review by Tocagen's Audit Committee would be inappropriate, to another independent body of the Tocagen Board) for review. The presentation must include a description of, among other things, all of the parties, the direct and indirect interests of the related parties, the purpose of the transaction, the material facts, the benefits of the transaction to Tocagen and whether any alternative transactions are available, an assessment of whether the terms are comparable to the terms available from unrelated third parties and management's recommendation. To identify related-party transactions in advance, Tocagen relies on information supplied by Tocagen's executive officers, directors and certain significant stockholders. In considering related-party transactions, Tocagen's Audit Committee or another independent body of the Tocagen Board takes into account the relevant available facts and circumstances including, but not limited to: (a) the risks, costs and benefits to us; (b) the impact on a director's independence in the event the related person is a director, immediate family member of a director or an entity with which a director is affiliated; (c) the terms of the transaction; (d) the availability of other sources for comparable services or products; and (e) the terms available to or from, as the case may be, unrelated third parties.

In the event a director has an interest in the proposed transaction, the director must recuse himself or herself from the deliberations and approval.

Forte Transactions

Convertible note and convertible preferred stock financings

From June through November of 2018, Forte issued and sold an aggregate of $650,000 in convertible promissory notes. Purchasers of the convertible promissory notes included Paul A. Wagner, Ph.D., Forte's President, Chief Executive Officer and a member of its board of directors. Dr. Wagner purchased $300,000 in principal of convertible promissory notes during this period.

In November 2018 and January 2019, Forte issued and sold an aggregate of 15,072,814 shares of Series A convertible preferred stock at a new cash purchase price of $0.7179 per share and upon conversion of the convertible promissory notes at a price of $0.5743 per share, for an aggregate purchase price of approximately $10.66 million (including $0.66 million in converting principal and interest under the convertible promissory notes).

Purchasers of Forte's Series A convertible preferred stock include Forte's officers, directors and venture capital funds that beneficially own more than 5% of outstanding Forte Capital Stock and/or are represented on the Forte Board. The following tables present the number of shares and the total purchase price paid by these entities.

Series A convertible preferred stock

Investor	Shares of Series A convertible preferred stock	Total Series A purchase price
Entities affiliated with ArrowMark Colorado Holdings, LLC(1)	13,929,511	$ 9,999,996
Paul A. Wagner, Ph.D.	526,864	$ 302,589

(1) Tuan Huynh, a member of Forte's pre-transaction board of directors, is an investment analyst at ArrowMark Partners.

Investors' rights agreement

Forte is party to an investors' rights agreement with certain holders of Forte Capital Stock, including entities affiliated with ArrowMark Partners and Paul A. Wagner, Ph.D., Forte's President, Chief Executive Officer and a member of the Forte Board. Under Forte's investors' rights agreement, certain holders of Forte Capital Stock have the right to demand that Forte file a registration statement or request that their shares of Forte Capital Stock be covered by a registration statement that Forte is otherwise filing. Upon the consummation of the Merger, the registration rights will terminate and none of Forte's stockholders will have any special rights regarding the registration of their shares.

Voting agreement

Forte is party to a voting agreement with certain holders of Forte Capital Stock, including entities affiliated with ArrowMark Colorado Holdings, LLC and Paul A. Wagner, Ph.D., Forte's President, Chief Executive Officer and a member of the Forte Board. The parties to the voting agreement have agreed, subject to certain conditions, to vote the shares of Forte Capital Stock held by them so as to elect the following individuals as directors: (1) one nominee designated by ArrowMark Colorado Holdings, LLC, currently Tuan Huynh, (2) one individual designated by the holders of a majority of the outstanding shares of Forte Series A Preferred Stock, currently vacant, (3) two individuals designated by the holders of a majority the outstanding shares of Forte Common Stock, currently Paul A. Wagner, Ph.D., and Lawrence Eichenfield, M.D., and (4) one person elected by the mutual consent of the holders of a majority of the outstanding shares of Forte Common Stock and the holders of a majority of the outstanding shares of Forte Series A Preferred Stock, voting together as separate classes, who shall be an independent industry expert, currently vacant. Upon the consummation of the Merger, the obligations of the parties to the voting agreement to vote their shares so as to elect these nominees, as well as the other rights and obligations under this agreement, will terminate and none of Forte's stockholders will have any special rights regarding the nomination, election or designation of members of the combined company's board of directors.

Indemnification agreements

Forte has entered into separate indemnification agreements with each of its directors and executive officers, in addition to the indemnification provided for in Forte's amended and restated certificate of incorporation and bylaws. The indemnification agreements and the combined company's amended restated certificate of incorporation and bylaws that will be in effect upon the closing of this offering require the combined company to indemnify its directors, executive officers and certain controlling persons to the fullest extent permitted by Delaware law.

DESCRIPTION OF TOCAGEN CAPITAL STOCK

As of the date of this proxy statement/prospectus/information statement, Tocagen's amended and restated certificate of incorporation authorizes it to issue 200,000,000 shares of common stock, par value $0.001 per share, and 10,000,000 shares of preferred stock, par value $0.001 per share. All of Tocagen's authorized preferred stock is undesignated.

The following is a summary of the rights of the Tocagen common and preferred stockholders, of some of the provisions of Tocagen's amended and restated certificate of incorporation and amended and restated bylaws and of the DGCL. This summary is not complete. For more detailed information, please see Tocagen's amended and restated certificate of incorporation and amended and restated bylaws, which are filed as exhibits to the Registration Statement, of which this proxy statement/prospectus/information statement is a part and which may be obtained as described below under "*Where You Can Find More Information,"* as well as the relevant provisions of the DGCL.

Common Stock

Voting. The Tocagen Common Stock is entitled to one vote for each share held of record on all matters submitted to a vote of the stockholders, including the election of directors, and does not have cumulative voting rights. Accordingly, the holders of a majority of the shares of Tocagen Common Stock entitled to vote in any election of directors can elect all of the directors standing for election.

Dividends. Subject to preferences that may be applicable to any then-outstanding preferred stock, the holders of Tocagen Common Stock are entitled to receive dividends, if any, as may be declared from time to time by the Tocagen Board out of legally available funds.

Liquidation. In the event of Tocagen's liquidation, dissolution or winding-up, holders of Tocagen Common Stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of Tocagen's debts and other liabilities, subject to the satisfaction of any liquidation preference granted to the holders of any outstanding shares of preferred stock.

Rights and Preferences. Holders of Tocagen Common Stock have no preemptive, conversion or subscription rights, and there are no redemption or sinking fund provisions applicable to its common stock. The rights, preferences and privileges of the holders of Tocagen Common Stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of its preferred stock that it may designate and issue in the future.

Preferred Stock

Under Tocagen's amended and restated certificate of incorporation, the Tocagen Board has the authority, without further action by stockholders, to designate up to 10,000,000 shares of preferred stock in one or more series and to fix or alter, from time to time, the designations, powers and rights of each series of preferred stock and the qualifications, limitations or restrictions of any series of preferred stock, including dividend rights, dividend rate, conversion rights, voting rights, rights and terms of redemption (including sinking fund provisions), redemption price or prices, and the liquidation preference of any wholly unissued series of preferred stock, any or all of which may be greater than the rights of the Tocagen Common Stock, and to establish the number of shares constituting any such series. To date, none of the 10,000,000 authorized shares of preferred stock have been designated by the Tocagen Board.

The Tocagen Board will fix the rights, preferences, privileges, qualifications and restrictions of the preferred stock of each series in the certificate of designation relating to each such series, including:

- the title and stated value;
- the liquidation preference per share;
- the dividend rate per share, dividend period, payment date or dates and method of calculation for dividends;
- whether dividends will be cumulative or non-cumulative and, if cumulative, the date from which dividends will accumulate;
- Tocagen's right, if any, to defer payment of dividends and the maximum length of any such deferral period;
- the procedures for any auction and remarketing, if any;
- the provisions for a sinking fund, if any;
- the provisions for redemption or repurchase, if applicable, and any restrictions on Tocagen's ability to exercise those redemption and repurchase rights;
- whether the preferred stock will be convertible into Tocagen Common Stock or other securities of Tocagen's, including warrants, and, if applicable, the conversion price, or how it will be calculated, and under what circumstances and the mechanism by which it may be adjusted, and the conversion period;
- whether the preferred stock will be exchangeable into debt securities or other securities of Tocagen's, and, if applicable, the exchange price, or how it will be calculated, and under what circumstances it may be adjusted, and the exchange period;
- voting rights, if any;
- preemptive rights, if any;
- restrictions on transfer, sale or other assignment, if any;
- whether interests in the preferred stock will be represented by depositary shares;
- the relative ranking and preferences of the preferred stock as to dividend rights and rights if Tocagen liquidates, dissolves or winds up its affairs;
- any limitations on issuances of any class or series of preferred stock ranking senior to or on parity with the series of preferred stock being issued as to dividend rights and rights if Tocagen liquidates, dissolves or winds up its affairs; and
- any other specific terms, rights, preferences, privileges, qualifications or limitations of, or restrictions on the preferred stock.

The laws of the state of Delaware, the state of Tocagen's incorporation, provide that the holders of preferred stock will have the right to vote separately, as a class, on any proposal involving fundamental changes in the rights of holders of such preferred stock. This right is in addition to any voting rights that may be provided for in the applicable certificate of designation.

The issuance of preferred stock could adversely affect the voting power, conversion or other rights of holders of Tocagen Common Stock and reduce the likelihood that common stockholders will receive dividend payments and payments upon liquidation. Preferred stock could be issued quickly with terms designed to delay, deter or prevent a change in control of Tocagen or make removal of management more difficult. Additionally, the issuance of preferred stock may have the effect of decreasing the market price of Tocagen Common Stock.

Anti-Takeover Effects of Provisions of Tocagen's Amended and Restated Certificate of Incorporation, Tocagen's Amended and Restated Bylaws and Delaware Law

Delaware Anti-Takeover Law

Tocagen is subject to Section 203 of the DGCL, which generally prohibits a public Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a period of three years after the date of the transaction in which the person became an interested stockholder, unless:

- prior to the date of the transaction, the board of directors of the corporation approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- the interested stockholder owned at least 85% of the voting stock of the corporation outstanding upon consummation of the transaction, excluding for purposes of determining the number of shares outstanding (1) shares owned by persons who are directors and also officers and (2) shares owned by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- on or subsequent to the consummation of the transaction, the business combination is approved by the board and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock which is not owned by the interested stockholder.

Section 203 of the DGCL defines a business combination to include:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, pledge or other disposition involving the interested stockholder of 10% or more of the assets of the corporation;
- subject to exceptions, any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially owned by the interested stockholder;
- subject to exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder; and
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

In general, Section 203 of the DGCL defines an interested stockholder as any entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by the entity or person.

Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws

Provisions of Tocagen's amended and restated certificate of incorporation and amended and restated bylaws, may delay or discourage transactions involving an actual or potential change in its control or change in its management, including transactions in which stockholders might otherwise receive a premium for their shares or transactions that Tocagen's stockholders might otherwise deem to be in their best interests. Therefore, these provisions could adversely affect the price of Tocagen Common Stock. Among other things, Tocagen's amended and restated certificate of incorporation and amended and restated bylaws:

- permit the Tocagen Board to issue up to 10,000,000 shares of preferred stock, with any rights, preferences and privileges as they may designate;
- provide that the authorized number of directors may be changed only by resolution adopted by a majority of the Tocagen Board;

- provide that the board of directors or any individual director may only be removed with cause and the affirmative vote of the holders of at least 66 2/3% of the voting power of all of its then outstanding Tocagen Common Stock;
- provide that all vacancies, including newly created directorships, may, except as otherwise required by law or subject to the rights of holders of preferred stock as designated from time to time, be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum;
- divides the Tocagen Board into three classes;
- require that any action to be taken by its stockholders must be effected at a duly called annual or special meeting of stockholders and not be taken by written consent or electronic transmission;
- provide that stockholders seeking to present proposals before a meeting of stockholders or to nominate candidates for election as directors at a meeting of stockholders must provide notice in writing in a timely manner and also specify requirements as to the form and content of a stockholder's notice;
- do not provide for cumulative voting rights (therefore allowing the holders of a majority of the shares of Tocagen Common Stock entitled to vote in any election of directors to elect all of the directors standing for election, if they should so choose);
- provide that special meetings of its stockholders may be called only by the chairman of the Tocagen Board, its Chief Executive Officer or by the Tocagen Board pursuant to a resolution adopted by a majority of the total number of authorized directors (whether or not there exists any vacancies); and
- provide that the Court of Chancery of the State of Delaware will be the sole and exclusive forum for (1) any derivative action or proceeding brought on its behalf, (2) any action asserting a claim of breach of a fiduciary duty owed by any of its directors or officers to its or its stockholders, (3) any action asserting a claim against it arising pursuant to any provision of the DGCL or its amended and restated certificate of incorporation or amended and restated bylaws, or (4) any action asserting a claim against it governed by the internal affairs doctrine.

The amendment of any of these provisions, with the exception of the ability of the Tocagen Board to issue shares of preferred stock and designate any rights, preferences and privileges thereto, would require the affirmative vote of the holders of at least 66 2/3% of the voting power of all of the outstanding Tocagen Common Stock.

Transfer Agent and Registrar

The transfer agent and registrar for the Tocagen Common Stock is Computershare Trust Company, N.A. The transfer agent and registrar's address is 250 Royall Street, Canton, Massachusetts 02021.

Listing on the Nasdaq Global Select Market

The Tocagen Common Stock is listed on the Nasdaq Global Select Market under the symbol "TOCA".

COMPARISON OF RIGHTS OF HOLDERS OF FORTE STOCK AND TOCAGEN STOCK

General

Tocagen and Forte are both incorporated under the laws of the State of Delaware. The rights of Tocagen stockholders and Forte stockholders are generally governed by the DGCL. Upon completion of the Merger, Forte stockholders will become Tocagen stockholders, and their rights will be governed by the DGCL, the amended and restated bylaws of Tocagen and the amended and restated certificate of incorporation of Tocagen, as amended.

The material differences between the current rights of Forte stockholders under Forte's amended and restated certificate of incorporation and amended and restated bylaws and their rights as Tocagen stockholders, after the Merger, under Tocagen's amended and restated certificate of incorporation and its amended and restated bylaws, both as will be in effect immediately following the completion of the Merger, are summarized below. The summary below does not purport to be complete and is subject to, and qualified in its entirety by reference to, the DGCL and the governing corporate instruments that are subject to amendment in accordance with their terms. You should carefully read this entire document and the other referenced documents, including the governing corporate instruments, for a more complete understanding of the differences between being a stockholder of Tocagen or Forte before the Merger and being a Tocagen stockholder following the completion of the Merger. For more information on how to obtain these documents, see the section titled "*Where You Can Find More Information*" beginning on page 273 of this proxy statement/prospectus/information statement.

Authorized Capital Stock

Forte

Forte's amended and restated certificate of incorporation authorizes the issuance of up to 28,858,687 shares of common stock, $0.0001 par value per share, and 15,072,819 shares of preferred stock, $0.0001 par value per share, all of which are designated as Series A Preferred Stock. Prior to the closing of the Merger, Forte expects to amend its amended and restated certificate of incorporation to increase the authorized number of shares of common stock to a new total of 100,000,000 shares.

Tocagen

Tocagen's amended and restated certificate of incorporation authorizes the issuance of up to 200,000,000 shares of common stock, par value $0.001 per share, and 10,000,000 shares of undesignated preferred stock, par value $0.001 per share.

The Merger Agreement contemplates an amendment to Tocagen's amended and restated certificate of incorporation in connection with the closing of the Merger to implement the Reverse Split.

Conversion Rights and Protective Provisions

Forte

The amended and restated certificate of incorporation of Forte provides that each holder of shares of Forte Preferred Stock shall, subject to certain conditions, have the right to convert such shares into shares of Forte Common Stock at any time in accordance with the amended and restated certificate of incorporation of Forte. The current conversion ratio is 1:1, provided that such conversion ratio is subject to broad-based weighted average antidilution adjustments in the event of certain dilutive issuances of Forte's securities.

The amended and restated certificate of incorporation of Forte provides that for so long as any shares of Forte Preferred Stock shall be outstanding, Forte shall not, without the consent of the holders of a majority of the outstanding shares of Series A Preferred Stock: (i) amend, alter or repeal any provision of Forte's amended and

restated certificate of incorporation or amended and restated bylaws in a manner that adversely affects the powers, preferences, rights or privileges of the Series A Preferred Stock; (ii) increase or decrease the authorized number of shares of Forte's preferred stock or common stock; (iii) create, or authorize the creation of, or issue or obligate itself to issue shares of, any additional class or series of capital stock (or reclassify any existing class or series of securities) unless the same ranks junior to the Series A Preferred Stock with respect to the distribution of assets on the liquidation, dissolution or winding up of Forte, the payment of dividends, voting rights and rights of redemption; (iv) increase the total number of authorized shares of Forte Common Stock reserved for issuance pursuant to any stock option plan agreement or similar agreement; (v) liquidate, dissolve or wind-up Forte's business and affairs, effect any change of control, liquidation, recapitalization, reincorporation, merger or consolidation or any other Deemed Liquidation Event (as defined in Forte's amended and restated certificate of incorporation), or consent to any of the foregoing; (vi) sell, assign, license, encumber or dispose of all or substantially all of Forte's assets, operating business, material technology or intellectual property (other than pursuant to equipment leases, lines of credit or other debt financing approved by the Forte Board (including the approval of at least one of the directors appointed by the holders of Forte's Series A Preferred Stock)); (vii) create or authorize the creation of, or issue or authorize the issuance of any debt security or instrument, any lien on Forte's assets or intellectual property, or otherwise incur new indebtedness if Forte's aggregate indebtedness for borrowed money following such action would exceed $250,000 in the aggregate (excluding equipment leases, lines of credit or other debt financing approved by the Forte Board (including the approval of at least one of the directors appointed by the holders of Forte's Series A Preferred Stock)); (viii) reclassify, alter or amend any existing security of Forte that is pari passu with the Series A Preferred Stock in respect of the distribution of assets on the liquidation, dissolution or winding up of Forte, the payment of dividends or rights of redemption, if such reclassification, alteration or amendment would render such other security senior to the Series A Preferred Stock in respect of any such right, preference, or privilege or reclassify, alter or amend any existing security of Forte that is junior to the Series A Preferred Stock in respect of the distribution of assets on the liquidation, dissolution or winding up of Forte, the payment of dividends or rights of redemption, if such reclassification, alteration or amendment would render such other security senior to or pari passu with the Series A Preferred Stock in respect of any such right, preference or privilege; (ix) purchase or redeem or pay or declare any dividend or make any distribution on, any shares of Forte's capital stock, subject to limited exceptions; (x) create or hold stock in any subsidiary that is not wholly owned by Forte or dispose of all or substantially all assets or intellectual property of a subsidiary; (xi) enter into related party transactions; (xii) increase the compensation of any employee or consultant, in either case to whom Forte pays cash compensation in excess of $150,000 per annum, other than increases for customary adjustments for costs of living; (xiii) increase or decrease the authorized number of directors constituting the Forte Board; or (xiv) enter into any agreement to do any of the foregoing.

The Investors' Rights Agreement (the "Forte IRA"), by and among Forte and the other parties thereto as Forte stockholders (collectively the "Forte Stockholders") provides the Forte Stockholders holding at least 1,000,000 shares of Series A Preferred Stock with a right of first offer to purchase up to their respective pro rata share of certain securities that Forte may propose to sell and issue (other than certain excluded securities). The Forte IRA will be terminated immediately prior to the Effective Time, without any liability being imposed on the part of Tocagen or the surviving company.

The Right of First Refusal and Co-Sale Agreement (the "Forte ROFR & Co-Sale Agreement"), by and among Forte and the Forte Stockholders party thereto also provides Forte (first) and certain of the Forte Stockholders (second) with a right of first refusal in the event a Key Common Holder (as defined in the Forte ROFR & Co-Sale Agreement) proposes to transfer any Forte Common Stock it holds. The Forte ROFR & Co-Sale Agreement will be terminated immediately prior to the Effective Time, without any liability being imposed on the part of Tocagen or the surviving company.

Tocagen

Tocagen's amended and restated certificate of incorporation provides that holders of Tocagen Common Stock have no preemptive, conversion or subscription rights, and there are no redemption or sinking fund

provisions applicable to Tocagen Common Stock. The rights, preferences and privileges of the holders of Tocagen Common Stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of Tocagen preferred stock that Tocagen may designate and issue in the future.

Number of Directors

Forte

Forte's amended and restated bylaws provide that the number of directors shall be set from time to time by the Forte Board. The Voting Agreement (the "Forte Voting Agreement"), by and among Forte and the Forte Stockholders party thereto provides that the number of authorized directors shall be set and remain at five directors.

Tocagen

Tocagen's amended and restated certificate of incorporation and amended and restated bylaws provide that, subject to any special rights of the holders of any series of preferred stock to elect directors, Tocagen's number of directors may be changed only by resolution adopted by a majority of the Tocagen Board.

Stockholder Nominations and Proposals

Forte

None.

Tocagen

Tocagen's amended and restated bylaws provide that that stockholders seeking to present proposals before a meeting of stockholders or to nominate candidates for election as directors at a meeting of stockholders must provide notice in writing in a timely manner and also specify requirements as to the form and content of a stockholder's notice.

Classification of Board of Directors

Forte

Forte's amended and restated certificate of incorporation and amended and restated bylaws do not provide for the division of the Forte Board into staggered classes.

Tocagen

Tocagen's amended and restated certificate of incorporation provides that the directors shall be divided into three classes, with each class having a three-year term expiring on a staggered basis.

Removal of Directors

Forte

Forte's amended and restated bylaws provide that, any director may be removed from the Forte Board at any time, with or without cause, by the holders of a majority of the shares of capital stock of Forte entitled to vote at an election of directors or by written consent of the stockholders.

The Forte Voting Agreement provides that the board of directors shall consist of (1) one nominee designated by ArrowMark Colorado Holdings, LLC, (2) one individual designated by the holders of a majority of the

outstanding shares of Forte Series A Preferred Stock, (3) two individuals designated by the holders of a majority the outstanding shares of Forte Common Stock, and (4) one person elected by the mutual consent of the holders of a majority of the outstanding shares of Forte Common Stock and the holders of a majority of the outstanding shares of Forte Series A Preferred Stock, voting together as separate classes, who shall be an independent industry expert. If any director resigns or is removed, they shall be replaced by a person nominated in accordance with the previous sentence. The Forte Voting Agreement will be terminated immediately prior to the Effective Time, without any liability being imposed on the part of Tocagen or the surviving company.

Tocagen

Under Tocagen's amended and restated bylaws and amended and restated certificate of incorporation, except as may otherwise be provided by the DGCL and subject to the special rights of the holders of any series of preferred stock to elect directors, the Tocagen Board or any individual Tocagen director may only be removed with cause and the affirmative vote of the holders of at least 66 2/3% of the voting power of all of Tocagen's then outstanding common stock.

Vacancies on the Board of Directors

Forte

Forte's amended and restated bylaws provide that vacancies occurring on its board of directors for any reason may be filled by vote of the stockholders or by the stockholders' written consent, or by vote of its board of directors or by the directors' written consent. If the number of directors then in office is less than a quorum, such vacancies may be filled by a vote of a majority in voting power (in accordance with Forte's amended and restated certificate of incorporation, as amended) of the directors then in office.

Tocagen

Tocagen's amended and restated certificate of incorporation and amended and restated bylaws provide that vacancies, including newly created directorships, may, except as otherwise required by law or subject to the rights of holders of preferred stock as designated from time to time, be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum.

Voting Stock

Forte

Forte's amended and restated bylaws provide that every stockholder shall be entitled to one vote in person or by proxy for each share of common stock of Forte held by them (including Series A Preferred Stock on an as-converted basis) as of the record date for such meeting.

Tocagen

The Tocagen Common Stock is entitled to one vote for each share held of record on all matters submitted to a vote of the stockholders.

Cumulative Voting

Forte

None.

Tocagen

Tocagen's amended and restated certificate of incorporation provides there shall be no cumulative voting.

Stockholder Action by Written Consent

Forte

Forte's amended and restated bylaws provide that any action required by the DGCL or permitted to be taken at any annual or special meeting of stockholders, may be taken without a meeting, without prior notice and without a vote, by a consent in writing or by electronic transmission, as permitted by the DGCL.

Tocagen

Tocagen's amended and restated certificate of incorporation eliminates the right of stockholders to act by written consent without a meeting.

Notice of Stockholder Meeting

Forte

Forte's amended and restated bylaws provide that except as otherwise provided by statute, its amended and restated certificate of incorporation, as amended, or the amended and restated bylaws, notice of each annual or special meeting of the stockholders shall be given to each stockholder of record entitled to vote at such meeting not less than ten, and nor more than 60, days before the day on which the meeting is to be held, by delivering written notice thereof to him or her personally, by mail, or by means of electronic transmission given in a form consented to in writing by the stockholder to whom notice is given. Every such notice shall state the place, if any, date and hour of the meeting, the means of remote communications, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such meeting, the record date for determining the stockholders entitled to vote at the meeting, if such date is different from the record date for determining stockholders entitled to notice of the meeting, and, in the case of a special meeting, the purpose or purposes for which the meeting is called.

Tocagen

Tocagen's amended and restated bylaws provide that written notice of the annual meeting of the stockholders shall be mailed to each stockholder of record entitled to vote thereat at such address as appears on the stock books of Tocagen at least ten days (and not more than 60 days) prior to the meeting. The Tocagen Board may postpone any annual meeting of the stockholders at its discretion, even after notice thereof has been mailed. It shall be the duty of every stockholder to furnish to the Secretary of Tocagen or to the transfer agent, if any, of the class of stock owned by him or her and such stockholder's post-office address, and to notify the Secretary of any change therein. Notice need not be given to any stockholder who submits a written waiver of notice signed by him or her before or after the time stated therein. Attendance of a stockholder at a meeting of stockholders shall constitute a waiver of notice of such meeting, except when the stockholder attends the meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the stockholders need be specified in any written waiver of notice.

Special Stockholder Meetings

Forte

Forte's amended and restated bylaws provide that a special meeting of the stockholders may be called at any time by the Forte Board, Chairperson of the Forte Board, Chief Executive Officer or President (in the absence of a Chief Executive Officer) or by one or more stockholders holding shares in the aggregate entitled to cast not less than 10% of the votes at that meeting.

Tocagen

Under Tocagen's amended and restated bylaws and amended and restated certificate of incorporation, special meetings of the stockholders may be called, for any purpose as is a proper matter for stockholder action under Delaware law, by (i) the Chairman of the Tocagen Board, (ii) the Chief Executive Officer, or (iii) the Tocagen Board pursuant to a resolution adopted by a majority of the total number of authorized directors (whether or not there exist any vacancies in previously authorized directorships at the time any such resolution is presented to the Tocagen Board for adoption).

Indemnification

Forte

Forte has entered into separate indemnification agreements with each of its directors and executive officers, in addition to the indemnification provided for in Forte's amended and restated certificate of incorporation and amended and restated bylaws. The indemnification agreements and Forte's amended restated certificate of incorporation and amended and restated bylaws that will be in effect upon the closing of this offering require the combined company to indemnify its directors, executive officers and certain controlling persons to the fullest extent permitted by Delaware law.

Tocagen

Tocagen's amended and restated certificate of incorporation provide that to the fullest extent permitted by applicable law, Tocagen is authorized to provide indemnification of (and advancement of expenses to) directors, officers and agents of Tocagen (and any other persons to which applicable law permits Tocagen to provide indemnification) through bylaw provisions, agreements with such agents or other persons, vote of stockholders or disinterested directors or otherwise in excess of the indemnification and advancement otherwise permitted by such applicable law. If applicable law is amended after approval by the stockholders of Tocagen's amended and restated certificate of incorporation to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director to Tocagen shall be eliminated or limited to the fullest extent permitted by applicable law as so amended.

Tocagen's amended and restated bylaws provide that Tocagen shall indemnify its directors and officers to the extent not prohibited by the DGCL or any other applicable law; *provided, however,* that Tocagen may modify the extent of such indemnification by individual contracts with its directors and officers; and, *provided, further,* that Tocagen shall not be required to indemnify any director or officer in connection with any proceeding (or part thereof) initiated by such person unless (i) such indemnification is expressly required to be made by law, (ii) the proceeding was authorized by the Tocagen Board, (iii) such indemnification is provided by Tocagen, in its sole discretion, pursuant to the powers vested in Tocagen under the DGCL or any other applicable law or (iv) such indemnification is otherwise required to be made the amended and restated bylaws. Tocagen's amended and restated bylaws also permit to advance expenses to any director or officer who was or is a party or is threatened to be made a party to any action by reason of such status.

Tocagen has entered into separate indemnification agreements with each of its directors and executive officers, in addition to the indemnification provided for in Tocagen's amended and restated certificate of incorporation and amended and restated bylaws.

Amendment of Amended and Restated Certificate of Incorporation

Forte

The Forte Board and stockholders may amend, alter, change or repeal any provision of Forte's amended and restated certificate of incorporation, as amended, in a manner prescribed by statue; provided that (i) any such

amendment may be subject to the protective provisions described above, (ii) except as otherwise required by law, holders of Forte Common Stock, as such, shall not be entitled to vote on any amendment to Forte's amended and restated certificate of incorporation that relates solely to the terms of one or more outstanding series of Forte Preferred Stock if the holders of such affected series are entitled, either separately or together with the holders of one or more other such series, to vote thereon pursuant to Forte's amended and restated certificate of incorporation or pursuant to the DGCL and (iii) any amendment, repeal or modification of Article Tenth of Forte's amended and restated certificate of incorporation shall not (a) adversely affect any right or protection of any director, officer or other agent of Forte existing at the time of such amendment, repeal or modification or (b) increase the liability of any director of Forte with respect to any acts or omissions of such director, officer or agent occurring prior to, such amendment, repeal or modification.

Tocagen

Tocagen's amended and restated certificate of incorporation provides that Tocagen reserves the right to amend, alter, change or repeal any provision contained in the amended and restated certificate of incorporation, in the manner now or hereafter prescribed by the DGCL, and all rights conferred upon stockholders herein are granted subject to this reservation; provided that notwithstanding anything to the contrary contained in Tocagen's amended and restated certificate of incorporation, and notwithstanding that a lesser percentage may be permitted from time to time by applicable law, but in addition to any affirmative vote of the holders of any particular class or series of the Company required by law or by Tocagen's amended and restated certificate of incorporation or any certificate of designation filed with respect to a series of preferred stock that may be designated from time to time, subject to the rights of the holders of any series of preferred stock, the affirmative vote of the holders of at least 66 2/3% of the voting power of all of the then-outstanding shares of capital stock of Tocagen entitled to vote generally in the election of directors, voting together as a single class, shall be required to alter, amend or repeal Articles V, VI or VIII of Tocagen's amended and restated certificate of incorporation.

Amendment of Amended and Restated Bylaws

Forte

Under Forte's amended and restated certificate of incorporation, the Forte Board is expressly authorized to make, repeal, alter, amend and rescind any or all of Forte's amended and restated bylaws, subject to the protective provisions described above. Forte's amended and restated bylaws provide that the amended and restated bylaws may be adopted, amended or repealed by the stockholders entitled to vote.

Tocagen

Tocagen's amended and restated certificate of incorporation and amended and restated bylaws provide that the Tocagen Board is expressly empowered to adopt, amend or repeal the Tocagen's amended and restated bylaws. Any adoption, amendment or repeal of the Tocagen amended and restated bylaws by the Tocagen Board shall require the approval of a majority of the authorized number of directors. Tocagen's amended and restated certificate of incorporation also provides that the Tocagen stockholders shall also have power to adopt, amend or repeal the Tocagen amended and restated bylaws; provided, however, that, in addition to any vote of the holders of any class or series of stock of Tocagen required by law or by Tocagen's amended and restated certificate of incorporation, such action by stockholders shall require the affirmative vote of the holders of at least 66 2/3% of the voting power of all of the then-outstanding shares of Tocagen capital stock entitled to vote generally in the election of directors, voting together as a single class.

Forum Selection

Forte

Forte's amended and restated certificate of incorporation provides that unless Forte consents in writing to the selection of an alternative forum, the Court of Chancery in the State of Delaware shall be the sole and

exclusive forum for any stockholder (including a beneficial owner) to bring (i) any derivative action or proceeding brought on behalf of Forte, (ii) any action asserting a claim of breach of fiduciary duty owed by any director, officer or other employee of Forte to Forte or Forte's stockholders, (iii) any action asserting a claim against Forte, its directors, officers or employees arising pursuant to any provision of the DGCL or Forte's amended and restated certificate of incorporation or amended and restated bylaws or (iv) any action asserting a claim against Forte, its directors, officers or employees governed by the internal affairs doctrine. The enforceability of similar choice of forum provisions in other companies' certificate of incorporation has been challenged in legal proceedings, and it is possible that a court could find these types of provisions to be inapplicable or unenforceable. This choice of forum provision does not apply to suits brought to enforce a duty or liability created by the Securities Act or the Exchange Act or any other claim for which the federal courts have exclusive jurisdiction.

Tocagen

Tocagen's amended and restated bylaws provide that, unless Tocagen consents in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware shall be the sole and exclusive forum for (i) any derivative action or proceeding brought on Tocagen's behalf; (ii) any action asserting a claim of breach of a fiduciary duty owed by any of Tocagen's directors, officers or other employees to Tocagen or Tocagen's stockholders; (iii) any action asserting a claim against Tocagen or any of Tocagen's directors or officers or other employees arising pursuant to any provision of the DGCL, Tocagen's amended and restated certificate of incorporation or amended and restated bylaws; or (iv) any action asserting a claim against Tocagen or any of Tocagen's directors or officers or other employees governed by the internal affairs doctrine. The enforceability of similar choice of forum provisions in other companies' bylaws has been challenged in legal proceedings, and it is possible that a court could find these types of provisions to be inapplicable or unenforceable. This choice of forum provision does not apply to suits brought to enforce a duty or liability created by the Securities Act or the Exchange Act or any other claim for which the federal courts have exclusive jurisdiction.

PRINCIPAL STOCKHOLDERS OF TOCAGEN

The following table sets forth certain information regarding the ownership of Tocagen Common Stock as of March 6, 2020 by: (i) each director; (ii) each of Tocagen's named executive officers; (iii) and all executive officers and directors of Tocagen as a group.

The following table is based upon information supplied by officers, directors and principal stockholders and Schedules 13G filed with the SEC. Unless otherwise indicated in the footnotes to this table and subject to community property laws where applicable, Tocagen believes that each of the stockholders named in this table has sole voting and investment power with respect to the shares indicated as beneficially owned. Applicable percentages are based on 23,908,937 shares outstanding on March 6, 2020, adjusted as required by rules promulgated by the SEC. Unless otherwise indicated, the address for the following stockholders is: c/o Tocagen Inc., 4445 Eastgate Mall, Suite 200, San Diego, California 92121.

	Beneficial Ownership	
Beneficial Owner	Number of Shares (#)	Percent of Total (%)
Greater than 5% stockholders		
Entities affiliated with Steven M. Oliveira (1)	4,065,149	17.0%
Named Executive Officers and Directors		
Martin J. Duvall (2)	679,643	2.8%
Mark Foletta (3)	217,565	*
Fairooz Kabbinavar, M.D. (4)	36,666	*
Faheem Hasnain (5)	262,819	1.1%
Franklin M. Berger (6)	112,881	*
Thomas E. Darcy (7)	499,095	2.1%
Paul Schimmel, Ph.D. (8)	110,312	*
David Parkinson, M.D. (9)	68,465	*
Lori Kunkel, M.D. (10)	101,957	*
All current executive officers and directors as a group (9 persons) (11)	2,089,403	8.2%

* Less than one percent.

(1) Includes (a) 2,799,149 shares of Tocagen Common Stock held by Steven Oliveira Roth IRA and (b) 1,266,000 shares of Tocagen Common Stock held by South Ocean Capital Management, LLC (collectively, the "Oliveira Shares"). Information regarding the Oliveira Shares is based on a Schedule 13G/A filed by Steven M. Oliveira with the SEC on February 28, 2020 and a Form 4 filed by Mr. Oliveira with the SEC on March 3, 2020. The address for each of Steven Oliveira Roth IRA and Ocean Capital Management, LLC is 225 Via Palacio, Palm Beach Gardens, FL 33418. Mr. Oliveira has sole voting power and sole dispositive power with respect to the Oliveira Shares.

(2) Includes (a) 8,605 shares of Tocagen Common Stock owned by Mr. Duvall and (b) 671,038 shares of Tocagen Common Stock that Mr. Duvall has the right to acquire from Tocagen within 60 days of March 6, 2020 pursuant to the exercise of stock options.

(3) Includes (a) 15,042 shares of Tocagen Common Stock owned by Mr. Foletta and (b) 202,523 shares of Tocagen Common Stock that Mr. Foletta has the right to acquire from Tocagen within 60 days of March 6, 2020 pursuant to the exercise of stock options.

(4) Includes 36,666 shares of Tocagen Common Stock that Dr. Kabbinavar has the right to acquire from Tocagen within 60 days of March 6, 2020 pursuant to the exercise of stock options.

(5) Includes (a) 152,857 shares of Tocagen Common Stock owned by Faheem Hasnain and Marie Hasnain Co-Trustees of the Hasnain Revocable Trust, Dated February 19, 2010 and (b) 109,962 shares of Tocagen Common Stock that Mr. Hasnain has the right to acquire from Tocagen within 60 days of March 6, 2020 pursuant to the exercise of stock options.

(6) Includes (a) 25,335 shares of Tocagen Common Stock owned by Mr. Berger and (b) 87,546 shares of Tocagen Common Stock that Mr. Berger has the right to acquire from Tocagen within 60 days of March 6, 2020 pursuant to the exercise of stock options.

(7) Includes (a) 369,565 shares of Tocagen Common Stock owned by Thomas Eric Darcy and Janet E. Darcy, Trustees of the Darcy Family Trust dated September 21, 2005 and (b) 129,530 shares of Tocagen Common Stock that Mr. Darcy has the right to acquire from Tocagen within 60 days of March 6, 2020 pursuant to the exercise of stock options. Mr. Darcy is a member of an investment club which may from time to time hold shares of the company's stock. Mr. Darcy is only one of dozens of voting members of such club and has confirmed for Tocagen that he will not vote on club decisions with respect to any such shares, including votes related to voting the shares or disposition of the shares. Mr. Darcy disclaims beneficial ownership over any such shares and the number of shares set forth in this table does not include any such shares.

(8) Includes (a) 3,623 shares of Tocagen Common Stock owned by Paul Schimmel Prototype PSP Paul R. Schimmel, TTEE U/A dtd 01/01/1999 FBO Paul Schimmel, (b) 37,087 shares of common stock owned by Schimmel Revocable Trust Paul R. Schimmel, Trustee Cleo Schimmel, Trustee U/A dtd 9/6/2000 and (c) 69,602 shares of Tocagen Common Stock that Dr. Schimmel has the right to acquire from Tocagen within 60 days of March 6, 2020 pursuant to the exercise of stock options.

(9) Includes 68,465 shares of Tocagen Common Stock that Dr. Parkinson has the right to acquire from Tocagen within 60 days of March 6, 2020 pursuant to the exercise of stock options.

(10) Includes 101,957 shares of Tocagen Common Stock that Dr. Kunkel has the right to acquire from Tocagen within 60 days of March 6, 2020 pursuant to the exercise of stock options.

(11) Includes the shares described in footnotes (2) through (10).

PRINCIPAL STOCKHOLDERS OF FORTE

The following table sets forth certain information regarding the ownership of Forte's securities on an as-converted basis as of March 6, 2020 by: (i) each person or group of affiliated persons known by Forte to be the beneficial owner of more than 5% of its common stock; (ii) each of Forte's directors; (iii) each of Forte's executive officers; and (iv) all executive officers and directors of Forte as a group.

Applicable percentages are based on 25,072,814 shares outstanding on March 6, 2020. Forte has determined beneficial ownership in accordance with SEC rules. The information does not necessarily indicate beneficial ownership for any other purpose. Under these rules, the number of shares of common stock deemed outstanding includes shares issuable upon exercise of warrants or options held by the respective person or group that may be exercised within 60 days after March 6, 2020. For purposes of calculating each person's or group's percentage ownership, warrants and options exercisable within 60 days after March 6, 2020 are included for that person or group but not the warrants or options of any other person or group. Unless otherwise indicated in the footnotes to this table and subject to community property laws where applicable, Forte believes that each of the stockholders named in this table has sole voting and investment power with respect to the shares indicated as beneficially owned. Unless otherwise indicated, the address for the following stockholders is: c/o Forte Biosciences, Inc., 1124 W Carson Street, MRL Building 3-320, Torrance, CA 90502.

	Beneficial Ownership	
Beneficial Owner	Number of Shares (#)	Percent of Total (%)
Greater than 5% stockholders		
Entities affiliated with ArrowMark Colorado Holdings, LLC(1)	13,929,511	55.6%
Paul A. Wagner, Ph.D.(2)	10,776,864	42.6%
Executive Officers and Directors		
Paul A. Wagner, Ph.D.(2)	10,776,864	42.6%
Antony Riley	0	—
Lawrence Eichenfield, M.D.(3)	20,312	*
Tuan Huynh(1)	13,929,511	55.6%
All current executive officers and directors as a group (3 persons)(4)	24,726,687	97.6%

* Less than one percent.

(1) Consists of (a) 278,590 shares held of record by ArrowMark Life Science Fund, L.P., (b) 1,629,753 shares held of record by ArrowMark Fundamental Opportunity Fund, L.P., (c) 25,072 shares held of record by CF Ascent, LLC, (d) 614,291 shares held of record by Iron Horse Investments, LLC, (e) 87,755 shares held of record by Lookfar Investments, LLC, (f) 5,571,807 shares held of record by Meridian Small Cap Growth Fund, (g) 5,571,807 shares held of record by Meridian Growth Fund, and (h) 150,436 shares held of record by THB Iron Rose, LLC. ArrowMark Colorado Holdings LLC, or ArrowMark Colorado, is an investment advisor to each of these entities and may be deemed to share voting and investment power with respect to the shares reported herein. Tuan Huynh, one of Forte's directors as of March 6, 2020, is employed as an Investment Analyst for ArrowMark Colorado and may also be deemed to share voting and investment power with respect to the shares reported herein and disclaims beneficial ownership of such shares, except to the extent of any pecuniary interest therein. The address of the entities listed herein is 100 Fillmore Street, Suite 325, Denver, Colorado 80206.

(2) Consists of (a) 10,526,864 shares held of record by Dr. Wagner and (b) 250,000 shares that Dr. Wagner has the right to acquire from Forte within 60 days of March 6, 2020 pursuant to the exercise of stock options.

(3) Represents shares of common stock that Dr. Eichenfield has the right to acquire from Forte within 60 days of March 6, 2020 pursuant to the exercise of stock options.

(4) Consists of (a) 24,456,375 shares beneficially owned by our current executive officers and directors as of March 6, 2020 and (b) 270,312 shares subject to options exercisable within 60 days of March 6, 2020.

The above information with respect to the beneficial ownership of Forte's securities on an as-converted basis will be updated as follows, once the Pre-Closing Financing is consummated. Applicable percentages are based on 42,980,701 shares outstanding following the closing of the Pre-Closing Financing. Forte has determined beneficial ownership in accordance with SEC rules for the purposes of this table. The information does not necessarily indicate beneficial ownership for any other purpose. Under these rules, the number of shares of common stock deemed outstanding includes shares to be issued in the Pre-Closing Financing as well as the shares issuable upon exercise of warrants or options held by the respective person or group that may be exercised within 60 days after the closing of the Pre-Closing Financing. For purposes of calculating each person's or group's percentage ownership, warrants and options exercisable within 60 days after the Pre-Closing Financing are included for that person or group but not the warrants or options of any other person or group. Unless otherwise indicated in the footnotes to this table and subject to community property laws where applicable, Forte believes that each of the stockholders named in this table has sole voting and investment power with respect to the shares indicated as beneficially owned.

	Beneficial Ownership	
Beneficial Owner	**Number of Shares (#)**	**Percent of Total (%)**
Greater than 5% stockholders		
Entities affiliated with ArrowMark Colorado Holdings, LLC(1)	13,929,511	32.4%
Paul A. Wagner, Ph.D.(2)	10,776,864	24.9%
Entities affiliated with OrbiMed Advisors LLC (3)	9,285,914	19.5%
Entities Affiliated with Biotechnology Value Fund, L.P. (4)	9,285,914	19.5%
Entities Affiliated with Fred Alger Management, LLC (5)	7,215,164	15.5%
Entities Affiliated with Franklin Advisors, Inc. (6)	4,642,956	10.8%
Executive Officers and Directors		
Paul A. Wagner, Ph.D.(2)	10,776,864	24.9%
Antony Riley	0	—
Lawrence Eichenfield, M.D.(7)	20,312	*
Tuan Huynh(1)	13,929,511	32.4%
All current executive officers and directors as a group (4 persons)(8)	24,726,687	57.2%

* Less than one percent.

(1) Consists of (a) 278,590 shares held of record by ArrowMark Life Science Fund, L.P., (b) 1,629,753 shares held of record by ArrowMark Fundamental Opportunity Fund, L.P., (c) 25,072 shares held of record by CF Ascent, LLC, (d) 614,291 shares held of record by Iron Horse Investments, LLC, (e) 87,755 shares held of record by Lookfar Investments, LLC, (f) 5,571,807 shares held of record by Meridian Small Cap Growth Fund, (g) 5,571,807 shares held of record by Meridian Growth Fund, and (h) 150,436 shares held of record by THB Iron Rose, LLC. ArrowMark Colorado Holdings LLC, or ArrowMark Colorado, is an investment advisor to each of these entities and may be deemed to share voting and investment power with respect to the shares reported herein. Tuan Huynh, one of Forte's directors as of March 6, 2020, is employed as an Investment Analyst for ArrowMark Colorado and may also be deemed to share voting and investment power with respect to the shares reported herein and disclaims beneficial ownership of such shares, except to the extent of any pecuniary interest therein. The address of the entities listed herein is 100 Fillmore Street, Suite 325, Denver, Colorado 80206.

(2) Consists of (a) 10,526,864 shares held of record by Dr. Wagner and (b) 250,000 shares that Dr. Wagner has the right to acquire from Forte within 60 days of March 6, 2020 pursuant to the exercise of stock options.

(3) Consists of (a) 2,785,774 shares held of record by The Biotech Growth Trust PLC, (b) 2,785,774 shares that may be acquired by The Biotech Growth Trust PLC from Forte within 60 days of the closing of the Pre-Closing Financing pursuant to the exercise of warrants to purchase common stock (subject to the limitations set forth in such warrants), (c) 1,857,183 shares held of record by OrbiMed Genesis Master Fund, L.P., and (d) 1,857,183 shares that may be acquired by OrbiMed Genesis Master Fund, L.P. from Forte within 60 days of the closing of the Pre-Closing Financing pursuant to the exercise of warrants to

purchase common stock (subject to the limitations set forth in such warrants). The address of the entities listed herein is c/o OrbiMed Advisors LLC, 601 Lexington Avenue, 54th Floor, New York, NY 10022.

(4) Consists of (a) 2,381,925 shares held of record by Biotechnology Value Fund, L.P., (b) 2,381,925 shares that may be acquired by Biotechnology Value Fund, L.P. from Forte within 60 days of the closing of the Pre-Closing Financing pursuant to the exercise of warrants to purchase common stock (subject to the limitations set forth in such warrants), (c) 1,788,421 shares held of record by Biotechnology Value Fund II, L.P., (d) 1,788,421 shares that may be acquired by Biotechnology Value Fund II, L.P. from Forte within 60 days of the closing of the Pre-Closing Financing pursuant to the exercise of warrants to purchase common stock (subject to the limitations set forth in such warrants), (e) 322,806 shares held of record by Biotechnology Value Trading Fund OS, L.P., (f) 322,806 shares that may be acquired by Biotechnology Value Trading Fund OS, L.P. from Forte within 60 days of the closing of the Pre-Closing Financing pursuant to the exercise of warrants to purchase common stock (subject to the limitations set forth in such warrants), (g) 149,805 shares held of record by MSI BVF SPV, LLC, and (h) 149,805 shares that may be acquired by MSI BVF SPV, LLC from Forte within 60 days of the closing of the Pre-Closing Financing pursuant to the exercise of warrants to purchase common stock (subject to the limitations set forth in such warrants). The address of the entities listed herein is 44 Montgomery Street, 40th Floor, San Francisco , CA 94104.

(5) Consists of (a) 1,003,790 shares held of record by Alger Health Sciences Fund, a series of the Alger Funds, (b) 1,003,790 shares that may be acquired by Alger Health Sciences Fund, a series of the Alger Funds, from Forte within 60 days of the closing of the Pre-Closing Financing pursuant to the exercise of warrants to purchase common stock (subject to the limitations set forth in such warrants), (c) 292,568 shares held of record by Alger Dynamic Opportunities Fund, a series of The Alger Funds II, (d) 292,568 shares that may be acquired by Alger Dynamic Opportunities Fund, a series of The Alger Funds II, from Forte within 60 days of the closing of the Pre-Closing Financing pursuant to the exercise of warrants to purchase common stock (subject to the limitations set forth in such warrants), (e) 144,673 shares held of record by Alger Dynamic Return Fund LLC, (f) 144,673 shares that may be acquired by Alger Dynamic Return Fund LLC from Forte within 60 days of the closing of the Pre-Closing Financing pursuant to the exercise of warrants to purchase common stock (subject to the limitations set forth in such warrants), (g) 97,556 shares held of record by Alger SICAV – Ager Dynamic Opportunities Fund, a Sub-Fund of Alger SICAV, (h) 97,556 shares that may be acquired by Alger SICAV – Ager Dynamic Opportunities Fund, a Sub-Fund of Alger SICAV, from Forte within 60 days of the closing of the Pre-Closing Financing pursuant to the exercise of warrants to purchase common stock (subject to the limitations set forth in such warrants), (i) 453,122 shares held of record by Alger Mid Cap Growth Institutional Fund, a series of The Alger Institutional Funds, (j) 453,122 shares that may be acquired by Alger Mid Cap Growth Institutional Fund, a series of The Alger Institutional Funds, from Forte within 60 days of the closing of the Pre-Closing Financing pursuant to the exercise of warrants to purchase common stock (subject to the limitations set forth in such warrants), (k) 699,148 shares held of record by Alger Mid Cap Growth Portfolio, a series of The Alger Portfolios, (l) 699,148 shares that may be acquired by Alger Mid Cap Growth Portfolio, a series of The Alger Portfolios, from Forte within 60 days of the closing of the Pre-Closing Financing pursuant to the exercise of warrants to purchase common stock (subject to the limitations set forth in such warrants), (m) 916,725 shares held of record by Alger Mid Cap Growth Fund, a series of The Alger Funds, and (n) 916,725 shares that may be acquired by Alger Mid Cap Growth Fund, a series of The Alger Funds, from Forte within 60 days of the closing of the Pre-Closing Financing pursuant to the exercise of warrants to purchase common stock (subject to the limitations set forth in such warrants). The address of the entities listed herein is c/o Fred Alger Management, LLC, 360 Park Avenue South, New York, NY 10010.

(6) Consists of (a) 2,678,001 shares held of record by Franklin Templeton Investment Funds – Franklin Biotechnology Discovery Fund, and (b) 2,678,001 shares held of record by Franklin Strategic Series – Franklin Biotechnology Discovery Fund. The address of the entities listed herein is One Franklin Parkway, San Mateo, CA 94403.

(7) Represents shares of common stock that Dr. Eichenfield has the right to acquire from Forte within 60 days of March 6, 2020 pursuant to the exercise of stock options.

(8) Consists of (a) 23,929,511 shares beneficially owned by our current executive officers and directors as of March 6, 2020 and (b) 270,312 shares subject to options exercisable within 60 days of March 6, 2020.

PRINCIPAL STOCKHOLDERS OF THE COMBINED COMPANY

The following table and the related notes present certain information with respect to the beneficial ownership of the common stock of the combined company upon consummation of the Merger, assuming the closing of the Merger occurred on March 6, 2020, by: (i) each person or group of affiliated persons known by Forte or Tocagen to become the beneficial owner of more than 5% of the common stock of the combined company upon the closing of the Merger; (ii) each of the directors of the combined company; (iii) each of the executive officers of the combined company; and (iv) all executive officers and directors of the combined company as a group.

Unless otherwise indicated in the footnotes to this table, Forte and Tocagen believe that each of the persons named in this table have sole voting and investment power with respect to the shares indicated as beneficially owned.

The following table assumes (i) no exercise of outstanding options to purchase shares of Tocagen common stock or Forte common stock prior to the closing of the Merger, (ii) an Exchange Ratio of 2.5923, (iii) that the closing of the Merger occurred on March 6, 2020, (iv) that immediately prior to the Merger, Tocagen will have 23,918,889 shares of its common stock outstanding and Forte will have 42,980,701 shares of its common stock outstanding (after giving effect to the issuance of the securities in the Pre-Closing Financing), (v) a Reverse Split of 15-for-1, to be implemented immediately following the closing of the Merger, and (vi) the 23,918,889 shares of Tocagen common stock being reduced to 1,594,592 shares as a result of the Reverse Split and the 42,980,701 shares of Forte common stock being reduced to a total of 7,427,905 shares as a result of the Exchange Ratio and the Reverse Split. Based on these assumptions, there will be a total of 9,022,497 shares of combined company common stock outstanding upon the closing of the Merger, after giving effect to the Reverse Split and the Pre-Closing Financing.

Shares of the combined company's s common stock that may be acquired by an individual or group within 60 days of March 6, 2020, pursuant to the exercise of options or warrants, are deemed to be outstanding for the purpose of computing the percentage ownership of such individual or group, but are not deemed to be outstanding for the purpose of computing the percentage ownership of the combined company's common stock of any other person shown in the table. Unless otherwise indicated, the address for the following stockholders is: c/o Forte Biosciences, Inc., 1124 W Carson Street, MRL Building 3-320, Torrance, CA 90502.

	Beneficial Ownership	
Beneficial Owner	**Number of Shares (#)**	**Percent of Total (%)**
Greater than 5% stockholders		
Entities affiliated with ArrowMark Colorado Holdings, LLC(1)	2,407,292	26.7%
Paul A. Wagner, Ph.D.(2)	1,862,457	20.5%
Entities affiliated with OrbiMed Advisors LLC (3)	1,604,790	16.3%
Entities Affiliated with Fred Alger Management, LLC (4)	1,246,920	12.9%
Entities Affiliated with Biotechnology Value Fund, L.P. (5)	1,604,789	16.3%
Entities Affiliated with Franklin Advisors, Inc.(6)	802,395	8.9%
Executive Officers and Directors		
Paul A. Wagner, Ph.D.(2)	1,862,457	20.5%
Antony Riley	0	—
Thomas E. Darcy(7)	33,272	*
Martin J. Duvall(8)	45,308	*
Lawrence Eichenfield, M.D.(9)	3,510	*%
Steven Kornfeld	0	—
Patricia Walker	0	—
Donald A. Williams	0	—
All current executive officers and directors as a group (8 persons)(10)	1,944,547	21.3%

* Less than one percent.

(1) Consists of (a) 48,145 shares held of record by ArrowMark Life Science Fund, L.P., (b) 281,653 shares held of record by ArrowMark Fundamental Opportunity Fund, L.P., (c) 4,332 shares held of record by CF Ascent, LLC, (d) 106,161 shares held of record by Iron Horse Investments, LLC, (e) 15,168 shares held of record by Lookfar Investments, LLC, (f) 962,919 shares held of record by Meridian Small Cap Growth Fund, (g) 962,919 shares held of record by Meridian Growth Fund, and (h) 25,998 shares held of record by THB Iron Rose, LLC. ArrowMark Colorado Holdings LLC, or ArrowMark Colorado, is an investment advisor to each of these entities and may be deemed to share voting and investment power with respect to the shares reported herein. The address of the entities listed herein is 100 Fillmore Street, Suite 325, Denver, Colorado 80206.

(2) Consists of (a) 1,819,252 shares held of record by Dr. Wagner and (b) 43,205 shares that Dr. Wagner has the right to acquire within 60 days of March 6, 2020 pursuant to the exercise of stock options.

(3) Consists of (a) 481,437 shares held of record by The Biotech Growth Trust PLC, (b) 481,437 shares that may be acquired by The Biotech Growth Trust PLC within 60 days of the closing of the Merger pursuant to the exercise of warrants to purchase common stock (subject to the limitations set forth in such warrants), (c) 320,958 shares held of record by OrbiMed Genesis Master Fund, L.P., and (d) 320,958 shares that may be acquired by OrbiMed Genesis Master Fund, L.P. within 60 days of the closing of the Merger pursuant to the exercise of warrants to purchase common stock (subject to the limitations set forth in such warrants). The address of the entities listed herein is c/o OrbiMed Advisors LLC, 601 Lexington Avenue, 54th Floor, New York, NY 10022.

(4) Consists of (a) 411,644 shares held of record by Biotechnology Value Fund, L.P., (b) 411,644 shares that may be acquired by Biotechnology Value Fund, L.P. within 60 days of the closing of the Merger pursuant to the exercise of warrants to purchase common stock (subject to the limitations set forth in such warrants), (c) 309,074 shares held of record by Biotechnology Value Fund II, L.P., (d) 309,074 shares that may be acquired by Biotechnology Value Fund II, L.P. within 60 days of the closing of the Merger pursuant to the exercise of warrants to purchase common stock (subject to the limitations set forth in such warrants), (e) 55,787 shares held of record by Biotechnology Value Trading Fund OS, L.P., (f) 55,787 shares that may be acquired by Biotechnology Value Trading Fund OS, L.P. within 60 days of the closing of the Merger pursuant to the exercise of warrants to purchase common stock (subject to the limitations set forth in such warrants), (g) 25,889 shares held of record by MSI BVF SPV, LLC, and (h) 25,889 shares that may be acquired by MSI BVF SPV, LLC within 60 days of the closing of the Merger pursuant to the exercise of warrants to purchase common stock (subject to the limitations set forth in such warrants). The address of the entities listed herein is 44 Montgomery Street, 40th Floor, San Francisco , CA 94104.

(5) Consists of (a) 173,474 shares held of record by Alger Health Sciences Fund, a series of the Alger Funds, (b) 173,474 shares that may be acquired by Alger Health Sciences Fund, a series of the Alger Funds, within 60 days of the closing of the Merger pursuant to the exercise of warrants to purchase common stock (subject to the limitations set forth in such warrants), (c) 50,561 shares held of record by Alger Dynamic Opportunities Fund, a series of The Alger Funds II, (d) 50,561 shares that may be acquired by Alger Dynamic Opportunities Fund, a series of The Alger Funds II, within 60 days of the closing of the Merger pursuant to the exercise of warrants to purchase common stock (subject to the limitations set forth in such warrants), (e) 25,002 shares held of record by Alger Dynamic Return Fund LLC, (f) 25,002 shares that may be acquired by Alger Dynamic Return Fund LLC within 60 days of the closing of the Merger pursuant to the exercise of warrants to purchase common stock (subject to the limitations set forth in such warrants), (g) 16,859 shares held of record by Alger SICAV – Ager Dynamic Opportunities Fund, a Sub-Fund of Alger SICAV, (h) 16,859 shares that may be acquired by Alger SICAV – Ager Dynamic Opportunities Fund, a Sub-Fund of Alger SICAV within 60 days of the closing of the Merger pursuant to the exercise of warrants to purchase common stock (subject to the limitations set forth in such warrants), (i) 78,308 shares held of record by Alger Mid Cap Growth Institutional Fund, a series of The Alger Institutional Funds, (j) 78,308 shares that may be acquired by Alger Mid Cap Growth Institutional Fund, a series of The Alger Institutional Funds, within 60 days of the closing of the Merger pursuant to the exercise of warrants to purchase common stock (subject to the limitations set forth in such warrants), (k) 120,826 shares held of record by Alger Mid Cap Growth Portfolio, a series of The Alger Portfolios, (l) 120,826 shares that may be acquired by Alger Mid Cap Growth Portfolio, a series of The Alger Portfolios, within 60 days of the closing of the Merger

pursuant to the exercise of warrants to purchase common stock (subject to the limitations set forth in such warrants), (m) 158,428 shares held of record by Alger Mid Cap Growth Fund, a series of The Alger Funds, and (n) 158,428 shares that may be acquired by Alger Mid Cap Growth Fund, a series of The Alger Funds, within 60 days of the closing of the Merger pursuant to the exercise of warrants to purchase common stock (subject to the limitations set forth in such warrants). The address of the entities listed herein is c/o Fred Alger Management, LLC, 360 Park Avenue South, New York, NY 10010.

(6) Consists of (a) 462,812 shares held of record by Franklin Templeton Investment Funds – Franklin Biotechnology Discovery Fund, and (b) 339,583 shares held of record by Franklin Strategic Series – Franklin Biotechnology Discovery Fund. The address of the entities listed herein is One Franklin Parkway, San Mateo, CA 94403.

(7) Consists of (a) 24,637 shares held of record by Thomas Eric Darcy and Janet E. Darcy, Trustees of the Darcy Family Trust dated September 21, 2005 and (b) 8,635 shares that Mr. Darcy has the right to acquire within 60 days of March 6, 2020 pursuant to the exercise of stock options. Mr. Darcy is a member of an investment club which may from time to time hold shares of the combined company's stock. Mr. Darcy is only one of dozens of voting members of such club and has confirmed for Tocagen that he will not vote on club decisions with respect to any such shares, including votes related to voting the shares or disposition of the shares. Mr. Darcy disclaims beneficial ownership over any such shares and the number of shares set forth in this table does not include any such shares.

(8) Consists of (a) 573 shares held of record by Mr. Duvall and (b) 44,735 shares that Mr. Duvall has the right to acquire within 60 days of March 6, 2020 pursuant to the exercise of stock options.

(9) Represents shares of common stock that Dr. Eichenfield has the right to acquire within 60 days of March 6, 2020 pursuant to the exercise of stock options.

(10) Consists of (a) 1,844,462 shares beneficially owned by the combined company's current executive officers and directors as of March 6, 2020 and (b) 100,085 shares subject to options exercisable within 60 days of March 6, 2020.

LEGAL MATTERS

Cooley will pass upon the validity of the Tocagen Common Stock offered by this proxy statement/prospectus/information statement. The material U.S. federal income tax consequences of the Merger will be passed upon for Tocagen by Cooley and for Forte by WSGR.

EXPERTS

The financial statements of Tocagen Inc. at December 31, 2019 and 2018, and for each of the three years in the period ended December 31, 2019, included in the Proxy Statement of Tocagen Inc., which is referred to and made a part of this Prospectus and Registration Statement, have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report (which contains an explanatory paragraph describing conditions that raise substantial doubt about Tocagen Inc.'s ability to continue as a going concern as described in Note 1 to the financial statements) appearing elsewhere herein, and are included in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

The financial statements of Forte Biosciences, Inc. as of December 31, 2019 and 2018 and for each of the two years in the period ended December 31, 2019 included in this proxy statement/prospectus/information statement have been audited by Mayer Hoffman McCann P.C., an independent registered public accounting firm, as set forth in their report, thereon appearing herein, and are included in reliance upon such report given on the authority of such firm as experts in auditing and accounting in giving said reports.

WHERE YOU CAN FIND MORE INFORMATION

Tocagen has filed with the SEC the Registration Statement on Form S-4 (including exhibits, schedules, and amendments) under the Securities Act with respect to the shares of common stock offered by this proxy statement/prospectus/information statement. This proxy statement/prospectus/information statement is a part of the Registration Statement and constitutes a prospectus of Tocagen, as well as a proxy statement of Tocagen for its special meeting and an information statement for the purpose of Forte for its written consent.

This proxy statement/prospectus/information statement does not contain all the information set forth in the Registration Statement. For further information about Tocagen and the shares of common stock to be registered in the Merger, you should refer to the Registration Statement. Statements contained in this proxy statement/prospectus/information statement relating to the contents of any contract, agreement or other document are not necessarily complete and are qualified in all respects by the complete text of the applicable contract, agreement or other document, a copy of which has been filed as an exhibit to the Registration Statement.

Tocagen is subject to the reporting and information requirements of the Exchange Act and, as a result, files, or will file, periodic reports, proxy statements and other information with the SEC. These periodic reports and other information are available for inspection and copying at the SEC's public reference room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the Public Reference Room. The SEC maintains an internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. The SEC's internet site can be found at http://www.sec.gov. Tocagen also maintains a website at http://www.tocagen.com and makes available free of charge through this website Tocagen's annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed or furnished pursuant to Sections 13(a) and 15(d) of the Exchange Act. Tocagen make these reports available through Tocagen's website as soon as reasonably practicable after Tocagen electronically files such reports with, or furnishes such reports to, the SEC. The information contained on, or that can be accessed through, Tocagen's website is not a part of this proxy statement/prospectus/information statement.

Statements contained in this proxy statement/prospectus/information statement, or in any document incorporated by reference into this proxy statement/prospectus/information statement regarding the contents of any contract or other document, are not necessarily complete, and each such statement is qualified in its entirety by reference to that contract or other document filed as an exhibit with the SEC. The SEC allows Tocagen to incorporate by reference into this document documents filed with the SEC by Tocagen. This means that the companies can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be a part of this proxy statement/prospectus/information statement, and later information that we file with the SEC will update and supersede that information. Tocagen incorporates by reference any documents filed by Tocagen under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this proxy statement/prospectus/information statement.

This proxy statement/prospectus/information statement does not constitute an offer to sell, or a solicitation of an offer to purchase, the securities offered by this proxy statement/prospectus/information statement, or the solicitation of a proxy, in any jurisdiction to or from any person to whom or from whom it is unlawful to make such offer, solicitation of an offer or proxy solicitation in such jurisdiction. Neither the delivery of this proxy statement/prospectus/information statement nor any distribution of securities pursuant to this proxy statement/prospectus/information statement shall, under any circumstances, create any implication that there has been no change in the information set forth or incorporated into this proxy statement/prospectus/information statement by reference or in our affairs since the date of this proxy statement/prospectus/information statement.

Tocagen has supplied all information contained in this proxy statement/prospectus/information statement relating to Tocagen and its business, and Forte has supplied all information contained in this proxy statement/prospectus/information statement relating to Forte and its business.

If you would like to request documents from Tocagen or Forte, please send a request in writing or by telephone to either Tocagen or Forte at the following addresses:

Tocagen Inc.
4445 Eastgate Mall, Suite 200
San Diego, CA 92121
(858) 412-8400
Attn: Investor Relations

Forte Biosciences, Inc.
1124 W Carson Street
MRL Building 3-320
Torrance, CA 90502
(310) 618-6994
Attn: Secretary

You may also request additional copies from Tocagen's proxy solicitor using the following contact information:

The Proxy Advisory Group, LLC
18 East 41st Street, Suite 2000
New York, New York 10017
1 (212) 616-2180

Delinquent Section 16(a) Reports

Section 16(a) of the Exchange Act requires Tocagen's directors and executive officers, and persons who own more than ten percent of a registered class of Tocagen's equity securities, to file with the SEC initial reports of ownership and reports of changes in ownership of Tocagen Common Stock and other equity securities of Tocagen. Officers, directors and greater than ten percent stockholders are required by SEC regulation to furnish Tocagen with copies of all Section 16(a) forms they file.

To Tocagen's knowledge, based solely on a review of the copies of such reports furnished to Tocagen and written representations that no other reports were required, during the fiscal year ended December 31, 2019, all Section 16(a) filing requirements applicable to Tocagen's officers, directors and greater than ten percent beneficial owners were complied with; except for one late filing for Dr. Kunkel as described below.

On January 11, 2019, Dr. Kunkel was granted stock options due to her role as Tocagen's interim Chief Medical Officer. The requisite Form 4 was prepared and submitted to the SEC on Dr. Kunkels' behalf; however, the Form 4 was filed on February 26, 2019.

Householding of Proxy Materials

The SEC has adopted rules that permit companies and intermediaries (*e.g.*, brokers) to satisfy the delivery requirements for proxy statements and annual reports with respect to two or more stockholders sharing the same address by delivering a single proxy statement addressed to those stockholders. This process, which is commonly referred to as "householding," potentially means extra convenience for stockholders and cost savings for companies.

A number of brokers with account holders who are Tocagen stockholders will be householding Tocagen's proxy materials. A single proxy statement/prospectus/information statement will be delivered to multiple stockholders sharing an address unless contrary instructions have been received from the affected stockholders. Once a stockholder has received notice from its broker that they will be householding communications to such stockholder's address, householding will continue until such stockholder is notified otherwise or until it revokes its consent. If, at any time, a stockholder no longer wishes to participate in householding and would prefer to receive a separate proxy statement/prospectus/information statement and annual disclosure documents, it may notify its broker, and direct its written request to Tocagen Inc. at Tocagen's principal executive offices at 4445 Eastgate Mall, Suite 200, San Diego, CA 92121, Attention: Investor Relations. Stockholders who currently receive multiple copies of the proxy statement/prospectus/information statement and annual disclosure documents at their address and would like to request householding of their communications should contact their broker.

Stockholder Proposals

Requirements for Stockholder Proposals to Be Considered for Inclusion in Tocagen's Proxy Materials. Under Rule 14a-8 of the Exchange Act, to submit a proposal for inclusion in Tocagen's Proxy Statement for the 2020 annual meeting of stockholders, stockholder proposals must have been submitted in writing by December 21, 2019, to the attention of the Secretary of Tocagen Inc., 4445 Eastgate Mall, Suite 200, San Diego, CA 92121.

Requirements for Stockholder Proposals and Director Nominations at the 2020 Annual Meeting of Stockholders. Tocagen's amended and restated bylaws provide that, for stockholder nominations to the Tocagen Board or other business to be considered at the 2020 annual meeting of stockholders, the stockholder must have given timely notice thereof in writing to the Secretary of Tocagen Inc., 4445 Eastgate Mall, Suite 200, San Diego, CA 92121 between January 30, 2020 and February 29, 2020 (assuming the date of Tocagen's 2020 annual meeting of stockholders is not so advanced or delayed as described in Tocagen's bylaws). To be timely for the 2020 annual meeting of stockholders, the stockholder's notice must be delivered to or mailed and received by Tocagen not earlier than the close of business on the 120th day nor later than the close of business on the 90th day prior to the anniversary date of the previous year's annual meeting, except that if the annual meeting is scheduled more than 30 days before or 30 days after such anniversary date, Tocagen must receive the notice not earlier than the close of business on the 120th day prior to such annual meeting and not later than the close of business on the later of the 90th day prior to such annual meeting or the tenth day following the day on which public announcement of the date of such meeting is first made. Such notice must provide the information required by Article III, Sections 5(b)(i), (ii) and (iv) of Tocagen's bylaws with respect to each nomination or matter the stockholder proposes to bring before the 2020 annual meeting of stockholders.

Stockholder Communication with the Tocagen Board

The Tocagen Board has adopted a formal process by which stockholders may communicate with the Tocagen Board or any of its directors. Stockholders who wish to communicate with the Tocagen Board may do

so by sending written communications addressed to the Secretary of Tocagen Inc., 4445 Eastgate Mall, Suite 200, San Diego, CA 92121. These communications will be reviewed by the Secretary of Tocagen who will determine whether the communication is appropriate for presentation to the Board or the relevant director. The purpose of this screening is to allow the Tocagen Board to avoid having to consider irrelevant or inappropriate communications (such as advertisements, solicitations and hostile communications).

Code of Business Conduct

Tocagen has adopted a written Code of Business Conduct and Ethics that applies to all of its officers, directors and employees, including its principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. Tocagen's Code of Business Conduct and Ethics is available on its website at www.tocagen.com. If Tocagen makes any substantive amendments to Tocagen's Code of Business Conduct and Ethics or grants any waiver from a provision of Tocagen's Code of Business Conduct and Ethics to any executive officer or director, it will promptly disclose the nature of the amendment or waiver on its website or in a current report on Form 8-K.

UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL INFORMATION

The following information does not give effect to the proposed reverse stock split of Tocagen Inc. common stock described in Proposal No. 1 in this proxy statement/prospectus/information statement.

The Merger

The following unaudited pro forma condensed combined financial information was prepared using the acquisition method of accounting under U.S. GAAP. For accounting purposes, Forte is considered to be acquiring Tocagen and the merger is expected to be accounted for as an asset acquisition. Forte is considered the accounting acquirer even though Tocagen will be the issuer of the common stock in the merger. To determine the accounting for this transaction under U.S. GAAP, a company must assess whether an integrated set of assets and activities should be accounted for as an acquisition of a business or an asset acquisition. The guidance requires an initial screen test to determine if substantially all of the fair value of the gross assets acquired is concentrated in a single asset or group of similar assets. If that screen is met, the set is not a business. In connection with the acquisition, Tocagen does not have an organized workforce that significantly contributes to its ability to create output, and substantially all of its fair value is concentrated in cash and in-process research and development ("IPR&D"). As such, the acquisition is expected to be treated as an asset acquisition.

The unaudited pro forma condensed combined balance sheet data assumes that the merger took place on December 31, 2019 and combines the historical balance sheets of Tocagen and Forte as of such date. The unaudited pro forma condensed combined statements of operations and comprehensive loss for the year ended December 31, 2019 assumes that the merger took place as of January 1, 2019. The unaudited pro forma condensed combined financial information was prepared in accordance with U.S. GAAP and pursuant to the rules and regulations of Article 11 of SEC Regulation S-X. The historical financial statements of Tocagen and Forte have been adjusted to give pro forma effect to events that are (i) directly attributable to the transaction, (ii) factually supportable, and (iii) with respect to the unaudited pro forma condensed combined statements of operations and comprehensive loss, expected to have a continuing impact on the combined company's results.

Tocagen's assets and liabilities will be measured and recognized as an allocation of the transaction price based on their relative fair values as of the transaction date with any value associated with IPR&D being expensed as it has no alternative future use, and combined with the assets, liabilities and results of operations of Forte after the consummation of the merger.

The merger is expected to be accounted for as a reverse asset acquisition in accordance with U.S. GAAP. Forte will be deemed to be the accounting acquirer for financial reporting purposes. This determination is based on the expectations that, immediately following the merger: (i) Forte stockholders will own a substantial majority of the voting rights of the combined organization; (ii) Forte will designate a majority (six of eight) of the initial members of the board of directors of the combined organization; and (iii) Forte's senior management will hold all key positions in senior management of the combined organization and no employees will be retained from Tocagen. The transaction is expected to be accounted for as a reverse asset acquisition as Tocagen does not meet the definition of a business because Tocagen does not have an organized workforce that significantly contributes to its ability to create output, and substantially all of its fair value is concentrated in cash and IPR&D. Accordingly, for accounting purposes: (i) the merger will be treated as the equivalent of Forte issuing stock to acquire the net assets of Tocagen, (ii) the net assets of Tocagen will be allocated a portion of the transaction price and recorded based upon their relative fair values in the financial statements at the time of closing, (iii) the reported historical operating results of the combined company prior to the merger will be those of Forte and (iv) for periods prior to the transaction, shareholders' equity of the combined company is presented based on the historical equity structure of Tocagen.

The unaudited pro forma condensed combined financial information is based on the assumptions and adjustments that are described in the accompanying notes. Accordingly, the pro forma adjustments are preliminary, subject to

further revision as additional information becomes available and additional analyses are performed and have been made solely for the purpose of providing unaudited pro forma condensed combined financial information. Differences between these preliminary estimates and the final accounting, expected to be completed after the closing of the merger, will occur and these differences could have a material impact on the accompanying unaudited pro forma condensed combined financial information and the combined company's future results of operations and financial position. In addition, differences between the preliminary and final amounts will likely occur as a result of changes in exchange ratio contingent upon the amount of cash used for Tocagen's operations, changes in the fair value of Tocagen common stock, and other changes in Tocagen's assets and liabilities.

The unaudited pro forma condensed combined financial information does not give effect to the potential impact of current financial conditions, regulatory matters, operating efficiencies or other savings or expenses that may be associated with the integration of the two companies. The unaudited pro forma condensed combined financial information is preliminary and has been prepared for illustrative purposes only and is not necessarily indicative of the financial position or results of operations in future periods or the results that actually would have been realized had Tocagen and Forte been a combined company during the specified periods. The actual results reported in periods following the merger may differ significantly from those reflected in the unaudited pro forma condensed combined financial information presented herein for a number of reasons, including, but not limited to, differences in the assumptions used to prepare this pro forma financial information.

The unaudited pro forma condensed combined financial information, including the notes thereto, should be read in conjunction with the separate historical financial statements of Tocagen and Forte, and their respective management's discussion and analysis of financial condition and results of operations included elsewhere in this proxy statement/prospectus/information statement. Tocagen's audited statements of operations and comprehensive loss for the year ended December 31, 2019 is derived from Tocagen's Annual Report on Form 10-K for the year ended December 31, 2019.

Accounting rules require evaluation of certain assumptions, estimates, or determination of financial statement classifications which are completed during the measurement period as defined in current accounting standards. The accounting policies of Tocagen may materially vary from those of Forte. During preparation of the unaudited pro forma condensed combined financial information, management has performed a preliminary analysis and is not aware of any material differences, and accordingly, this unaudited pro forma condensed combined financial information assumes no material differences in accounting policies. Following the acquisition, management will conduct a final review of Tocagen's accounting policies in order to determine if differences in accounting policies require adjustment or reclassification of Tocagen's results of operations or reclassification of assets or liabilities to conform to Forte's accounting policies and classifications. As a result of this review, management may identify differences that, when conformed, could have a material impact on these unaudited pro forma condensed combined financial statements.

Pre-Closing Financing

Concurrent with Forte's entry into the Merger Agreement, certain new investors entered into an Investment and Subscription Agreement to purchase shares of Forte's common stock and warrants to purchase Forte's common stock in private financings prior to consummation of the Merger for gross proceeds of approximately $19.3 million, referred to as the Pre-Closing Financing. In addition, all of the outstanding Series A convertible preferred stock of Forte are converted into Forte's common stock on a one-for-one basis immediately prior to the Merger.

Unaudited Pro Forma Condensed Combined Balance Sheet
December 31, 2019
(in thousands)

	December 31, 2019				
	Tocagen Inc.	Forte Bioscience	Pro Forma Adjustments	Note	Pro Forma Combined
ASSETS					
Current assets:					
Cash and cash equivalents	$ 8,986	$ 6,939	$ 19,285	A	$ 35,210
			(5,398)	F	$ (5,398)
Marketable securities	12,835	—	—		12,835
Prepaid expenses and other current assets	1,135	567	—		1,702
Total current assets	22,956	7,506	13,887		44,349
Property and equipment, net	1,689	151	—		1,840
Operating lease right-of-use asset	3,515	—	—		3,515
Total assets	$ 28,160	$ 7,657	$ 13,887		$ 49,704
LIABILITIES AND STOCKHOLDERS' EQUITY					
Current liabilities:					
Accounts payable	$ 3,218	$ 1,569	$ —		$ 4,787
Accrued liabilities	5,242	343	5,550	B	13,263
			1,935	C	
			193	A	
Notes payable, current portion	4,744	—	(4,744)	F	—
Total current liabilities	13,204	1,912	2,934		18,050
Operating lease liability, net of current portion	4,027	—			4,027
Other long term liabilities	81	—	(81)	C	—
Total liabilities	17,312	1,912	2,853		22,077
					—
Series A Convertible Preferred Stock	—	10,515	(10,515)	D	—
					—
Stockholders' equity					
Common Stock	23	1	113	E	137
Additional paid-in capital	290,215	200	(231,487)	H	58,928
Accumulated deficit	(279,400)	(4,971)	252,933	G	(31,438)
Accumulated other comprehensive income	10	—	(10)	I	—
Total stockholders' equity (deficit)	10,848	(4,770)	21,549		27,627
Total liabilities, convertible preferred and stockholders' equity (deficit)	$ 28,160	$ 7,657	$ 13,887		$ 49,704

Unaudited Pro Forma Condensed Combined Statement of Operations and Comprehensive Loss
For the Year December 31, 2019
(in thousands, except share and per share amounts)

	Year Ended December 31, 2019				
	Tocagen Inc.	Forte Bioscience	Total	Note	Pro Forma Combined
Statements of Operations Data					
License revenue	$ 36	$ —	$ —		$ 36
Operating expenses:					
Research and development	45,299	2,684	—		47,983
General and administrative	16,248	1,380	(150)	K	17,478
			(100)	B	(100)
Total operating expenses	61,547	4,064	(250)		65,361
Loss from operations	(61,511)	(4,064)	250		(65,325)
Other income (expense), net:					
Interest income	1,564	3	—		1,567
Interest expense	(3,820)	—	3,820	L	—
Loss on disposal of assets	(1,187)	—	—		(1,187)
Gain on lease modification	1,439	—	—		1,439
Other Expense	—	(7)	—		(7)
Loss before income taxes	(63,515)	(4,068)	4,070		(63,513)
Income tax expense	1	—	—		1
Net loss	$ (63,516)	$ (4,068)	$ 4,070		$ (63,514)
Other comprehensive income (loss):					
Net unrealized gain (loss) on investments	33	—	—		33
Comprehensive loss	$ (63,483)	$ (4,068)	$ 4,070		$ (63,481)
Net loss per common share, basic and diluted	$ (2.69)	$ (0.41)			$ (0.47)
Weighted-average number of common shares outstanding, basic and diluted	23,630,422	10,000,000	102,743,866	J	136,374,288

Notes to the Unaudited Pro Forma Condensed Combined Financial Information

1. Description of the Merger

Description of the Merger

On February 19, 2020, Tocagen, Inc., a Delaware corporation, Telluride Merger Sub, Inc., a Delaware corporation and wholly owned subsidiary of Tocagen ("Merger Sub"), and Forte Biosciences, Inc. ("Forte"), a Delaware corporation, focused on developing novel therapies for the treatment of inflammatory skin diseases, entered into the Agreement and Plan of Merger and Reorganization (the "Merger Agreement"). The Merger Agreement, as it may be amended from time to time, contains the terms and conditions of the proposed merger among Tocagen, Merger Sub and Forte. Under the Merger Agreement, Merger Sub will merge with and into Forte, with Forte surviving as a wholly owned subsidiary of Tocagen. This Merger is referred to as the "Merger." Pursuant to the Merger Agreement, subject to, among other things, the satisfaction or waiver of the conditions set forth in the Merger Agreement, Tocagen is expected to acquire all of the outstanding shares of Forte in exchange for newly-issued shares of Tocagen in an all-stock Merger, subject to shareholder approval. The exchange is intended to constitute a Merger qualifying for federal income tax purposes as a tax-free exchange under the provisions of Section 351(a) of the Internal Revenue Code of 1986, as amended. Immediately following the exchange, Forte will be a wholly-owned subsidiary of Tocagen and the name of Tocagen will be changed from "Tocagen Inc." to "Forte, Inc."

Concurrent with Forte's entry into the Merger Agreement, certain new investors entered into an Investment and Subscription Agreement to purchase shares of Forte's common stock and warrants to purchase Forte's common stock in private financings prior to consummation of the Merger for gross proceeds of approximately $19.3 million, referred to as the Pre-Closing Financing. In addition, all of the outstanding Series A convertible preferred stock of Forte are converted into Forte's common stock on a one-for-one basis immediately prior to the Merger.

Under the exchange ratio provided in the Merger Agreement, as of and immediately after the merger and assuming no additional adjustments for Tocagen's net cash balance (as described below) or for the purchase price in Forte's Pre-Closing Financing, all as provided for in the Merger Agreement, the Forte security holders are expected to own approximately 82.4% of the aggregate number of shares of the combined company's common stock issued and outstanding plus any common stock equivalent outstanding on the date of the Merger, or the Post-Closing Shares, and the stockholders of Tocagen are expected to own approximately 17.6% of the aggregate number of Post-Closing Shares, as of the closing of the Merger.

Per the Merger Agreement, the purchase consideration will be adjusted dollar-for-dollar by the amount of Tocagen's net cash amount that is less than $7.5 million or greater than $10.0 million. Based on management's best estimate as of the filing date, Tocagen's net cash position at Closing of the Merger is currently expected to be approximately $3.0 million. The pro forma financial statements reflect management's estimates of the fair value of Tocagen's net assets that will be contributed to Forte as part of the Merger and assume Tocagen has a net cash balance of $3.0 million as of Closing. However, the actual purchase consideration will be adjusted based on the net cash calculation prior to Closing and the Exchange Ratio as described above and that difference could be material. As such, the estimated purchase consideration reflected in these unaudited pro forma condensed combined financial statements does not purport to represent what the actual purchase consideration will be when the Merger is completed.

In addition to other customary conditions, the Merger requires Tocagen's stockholders to approve the issuance of shares to the Forte security holders, and the amendment of Tocagen's certificate of incorporation to effect a reverse split of its shares and to change its name to Forte, Inc. The unaudited pro forma condensed combined financial information presented herein does not give effect to the proposed reverse stock split of Tocagen's common stock.

If Tocagen or Forte terminate the Merger Agreement under specified circumstances, including terminating because of a decision of a board of directors to recommend a superior competing proposal, Forte may be required to pay Tocagen a termination fee of $1,000,000 or $3,000,000, or up to $250,000 in expense reimbursements, or

Tocagen may be required to pay Forte a termination fee of $500,000 or $750,000, or up to $250,000 in expense reimbursements, as defined and described in the Merger Agreement.

2. Basis of Pro Forma Presentation

The following unaudited pro forma condensed combined financial information does not give effect to the proposed Tocagen reverse stock split because the proposed reverse stock split is not final.

The unaudited pro forma condensed combined financial information has been prepared in accordance with SEC Regulation S-X Article 11 and by using the acquisition method of accounting in accordance with the asset acquisition accounting guidance set forth in Accounting Standards Codification 805, *Business Combinations* ("ASC 805"). The unaudited pro forma condensed combined statements of operations and comprehensive loss for the year ended December 31, 2019, give effect to the merger as if it had been consummated on January 1, 2019.

The unaudited pro forma condensed combined balance sheet as of December 31, 2019 gives effect to the merger as if it had been consummated on December 31, 2019. Based on Forte's preliminary review of Forte's and Tocagen's summary of significant accounting policies and preliminary discussions between management teams of Forte and Tocagen, the nature and amount of any adjustments to the historical financial statements of Tocagen to conform its accounting policies to those of Forte are not expected to be material. Upon completion of the merger, further review of Tocagen's accounting policies may result in additional revisions to Tocagen's accounting policies and classifications to conform to those of Forte.

The unaudited pro forma condensed combined financial information has been prepared with the expectation that the merger will be treated as an asset acquisition, with Forte treated as the accounting acquirer. Since Tocagen is the legal acquirer, the merger will be accounted for as a reverse asset acquisition. To determine the accounting for this transaction under U. S. GAAP, a company must assess whether an integrated set of assets and activities should be accounted for as an acquisition of a business or an asset acquisition. Substantially all of the fair value is included in IPR&D and no substantive processes are being acquired. As such, the merger is expected to be treated as an asset acquisition. Asset acquisitions are to be accounted for by allocating costs, including transaction costs, of the acquisition to the acquired assets based on their relative fair value basis. For the purpose of measuring the estimated fair value of the assets acquired and liabilities assumed, Forte estimated the fair values as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants as of the measurement date. The fair value measurements utilize estimates based on key assumptions of the merger, including historical and current market data. The unaudited pro forma adjustments included herein are preliminary and will be adjusted as additional information becomes available and as additional analyses are performed. The final purchase price allocation will be determined subsequent to the merger, and the final amounts of the assets acquired, and liabilities assumed may differ materially from the values recorded in the pro forma financial information.

The historical financial information has been adjusted to give effect to matters that are (i) directly attributable to the merger, (ii) factually supportable and (iii) with respect to the statements of operations and comprehensive loss, expected to have a continuing impact on the operating results of the combined company. Estimated transaction costs have been excluded from the unaudited pro forma condensed combined statements of operations and comprehensive loss as they reflect charges directly related to the merger which do not have an ongoing impact. However, the anticipated transaction costs are reflected in the unaudited pro forma condensed combined balance sheet as an increase to accrued liabilities. In addition, the unaudited pro forma condensed combined statements of operations and comprehensive loss do not include one-time costs directly attributable to the transaction, employee retention costs or professional fees incurred or expected to be incurred by Forte or Tocagen pursuant to provisions contained in the Merger Agreement, as those costs are not considered part of the purchase price.

Forte and Tocagen expect to incur significant costs associated with integrating the operations of Forte and Tocagen after the merger is completed. The unaudited pro forma condensed combined financial information does not reflect the costs of any integration activities or benefits that may result from realization of future cost savings from operating efficiencies expected to result from the merger.

The unaudited pro forma condensed combined financial information may differ from the final purchase accounting for a number of reasons, including the fact that the estimates of fair values of assets and liabilities acquired are preliminary and subject to change when the valuation and other studies are finalized. In addition, the values will be based on the actual values as of the closing date of the Merger. Furthermore, final assets and liabilities of Tocagen will change from the estimates included herein due to Tocagen's ongoing business operations from now through the closing of the Merger. The differences that may occur between the preliminary estimates and the final purchase accounting could have a material impact on the accompanying unaudited pro forma condensed combined financial information.

3. Preliminary Estimate of Consideration Expected to be Transferred

For accounting purposes, Forte has been determined (i) to be the accounting acquirer based upon the terms of the Merger and other factors including: (x) Forte's security holders are expected to own 82.4% of the company immediately following the closing of the Merger, (y) Forte directors will hold a majority of the board seats in the company, and (z) Forte management will hold all key positions of the combined company, and (ii) that the Merger will be accounted for as a reverse asset acquisition of Tocagen by Forte because on the Merger date, the primary pre-combination assets of Tocagen are expected to be cash and IPR&D assets.

The accompanying unaudited pro forma condensed combined financial statements reflect an estimated reverse asset acquisition price of approximately $30.3 million, including estimated transaction costs incurred by Forte. In accordance with GAAP, the fair value of the equity securities comprising the consideration will be measured on the closing date of the merger at the then-current market price per share of Tocagen. The estimated purchase price consideration for Tocagen is approximately $30.3 million, solely to the extent that Tocagen's net cash at Closing is $3.0 million. For purposes of these pro forma financial statements, this estimated purchase price consideration consists of the following:

Number of shares of the combined organization to be owned by Tocagen stockholders (1)		23,918,889
Multiplied by the assumed price per share of Tocagen common stock (2)	$	1.14
Estimated fair value of shares of combined organization to be owned by Tocagen stockholders.	$	27,267,533
Estimated fair value of assumed Tocagen equity awards based on pre-combination services (3)	$	1,509,090
Total	$	28,776,623
Estimated transaction costs	$	1,500,000
Estimated purchase price	$	30,276,623

(1) Reflects the number of outstanding common shares of the combined organization to be owned by Tocagen stockholders based on Tocagen's total outstanding common shares as of April 20, 2020.

(2) Reflects the assumed price per share of Tocagen common stock, which is the closing trading price of Tocagen common stock on April 21, 2020 of $1.14 per share.

(3) Reflects the estimated acquisition-date fair value of the assumed Tocagen equity awards attributable to pre-combination service.

For purposes of this pro forma analysis, the above estimated purchase price has been allocated based on a preliminary estimate of the fair value of assets and liabilities to be acquired as follows (in thousands):

Historical net assets of Tocagen as of December 31, 2019		$ 10,848
Less:		
Reduction of cash for repayment of Tocagen's note payable (F, Note 5)	(5,398)	
Increase of liabilities for Merger related expenses (B, Note 5)	(4,050)	
Increase of liabilities for Merger related severance expenses (C, Note 5)	(1,854)	
Reduction of note payable due to repayment (F, Note 5)	4,744	
Pro forma net assets of Tocagen as of December 31, 2019		$ 4,290
In-process research and development[(i)]		25,987
Total estimated purchase price		$ 30,277

(i) IPR&D represents the research and development assets of Tocagen which were in-process, but not yet completed, and which Forte has the opportunity to advance. Current accounting standards require that the fair value of IPR&D projects acquired in an asset acquisition with no alternative future use be allocated a portion of the consideration transferred and charged to expense at the acquisition date. The acquired assets did not have outputs or employees. The actual purchase price allocated to IPR&D will fluctuate until the closing date of the merger, and the final valuation of the IPR&D consideration could differ significantly from the current estimate.

Given that the estimated purchase price is variable depending upon the price of Tocagen's common stock, management performed a sensitivity analysis over the change in purchase consideration based on +/– 10% volatility in Tocagen's stock price, which is reasonably possible during the period between the date of this joint proxy statement/prospectus and the expected effective time of the merger. A 10% increase from the closing trading price of Tocagen common stock on April 21, 2020 would cause an increase in the fair value of consideration transferred by approximately $2.9 million. A 10% decrease from the closing trading price of Tocagen common stock on April 21, 2020 would cause a decrease in the fair value of consideration transferred by approximately $2.9 million.

Per the Merger Agreement, the purchase consideration will be adjusted dollar-for-dollar by the amount of Tocagen's net cash amount that is less than $7.5 million or greater than $10.0 million. Based on the management's best estimate as of the filing date, Tocagen's net cash position at Closing of the Merger is currently expected to be approximately $3.0 million. The unaudited pro forma condensed combined financial statements reflect management's estimates of the fair value of Tocagen's net assets that will be contributed to Forte as part of the Merger and assume Tocagen has a net cash balance of $3.0 million as of Closing. However, the actual purchase consideration will vary based on the net cash calculation prior to Closing and the Exchange Ratio as described above and that difference could be material. As such, the estimated purchase consideration reflected in these unaudited pro forma condensed combined financial statements does not purport to represent what the actual purchase consideration will be when the Merger is completed.

To the extent there are significant changes to the business following completion of the Merger, the assumptions and estimates set forth in the unaudited pro forma condensed financial statements could change significantly. Accordingly, the pro forma adjustments are subject to further adjustments as additional information becomes available and as additional analyses are conducted following the completion of the Merger. There can be no assurances that these additional analyses will not result in material changes to the estimates of fair value.

4. Shares of Tocagen Common Stock Issued to Forte Stockholders upon Closing of the Merger

Prior to the Merger, all outstanding shares of Forte convertible preferred stock are expected to be converted into Forte common stock, which will be exchanged for shares of Tocagen common stock as described above. The number of shares of common stock Tocagen will issue to Forte securityholders, for purposes of these pro forma condensed combined financial statements as of December 31, 2019, is calculated pursuant to the terms of the Merger Agreement, using an exchange ratio that assumes Tocagen has net cash of $3.0 million as of Closing, assuming the conversion of the existing convertible preferred stock into Forte common stock and the consummation of the pre-closing financings all had occurred on December 31, 2019, as follows:

Outstanding shares of Tocagen as of April 20, 2020, including assumed equity awards	25,242,652
Divided by the assumed Tocagen ownership percentage of combined organization	17.56%
Estimated fully-diluted adjusted total shares of common stock of combined organization	143,726,850
Less: outstanding shares of Tocagen, including assumed equity awards shares of Tocagen	25,242,652
Total fully-diluted shares of combined organization to be allocated to Forte security holders	118,484,198

5. Pro forma adjustments

The historical financial statements of Tocagen, which are contained in Tocagen's annual report on Form 10-K for the year ended December 31, 2019 that Tocagen previously filed with the SEC and that are incorporated by reference into this proxy statement/prospectus, and Forte, which are provided elsewhere in this proxy statement/prospectus/information, have been adjusted to give pro forma effect to events that are (i) directly attributable to the Merger, (ii) factually supportable, and (iii) with respect to the statements of operations and comprehensive loss, expected to have a continuing impact on the combined results. The historical financial statements of Forte shall become the historical financial statements of the combined organization.

The unaudited pro forma condensed combined financial information does not give effect to the proposed reverse stock split of Tocagen common stock described in the reverse stock split proposal.

The pro forma adjustments, based on preliminary estimates that may change significantly as additional information is obtained, are as follows:

A. Adjustments to reflect an estimated $19.3 million in proceeds from the sale of common stock and warrants to be raised by Forte as Pre-Closing Financings prior to consummation of the Merger. Estimated cost of offering of $193 thousand is recorded as accrued liabilities.

B. To accrue on the unaudited pro forma condensed combined balance sheet for estimated Merger costs directly attributable to the Merger. The $5.6 million in Merger costs includes the following costs to be incurred by Tocagen: $1.2 million for investment banking services, $1.5 million in insurance costs, and $1.4 million in legal, accounting and other expenses; and the following are Merger costs to be incurred by Forte: $1.5 million in legal, accounting and other expenses. Of the total adjustment, $0.1 million has an impact on the pro forma statement of operations and comprehensive loss, with the remainder impacting the balance sheet only as those amounts are not expected to have a continuing effect on the operating results of the combined company.

C. To reflect the accrued liabilities of approximately $2.6 million associated with severance obligations payable to Tocagen's officers and employees, offset by $0.7 million accrued compensation costs that would be avoided as a result of the Merger.

D. To reflect the exchange of Forte convertible preferred stock for Forte common stock.

E. To reflect the change in common stock par value due to exchange of Tocagen common stock for Forte's common stock upon closing of the Merger (in thousands, except for number of shares and exchange ratio).

Forte outstanding common stock as of December 31, 2019	10,000,000
Number of shares to be issued in connection with Forte preferred stock conversion into Forte common stock	15,072,814
Number of Forte common stock to be issued in concurrent financing	17,907,887
Total Forte common stock prior to exchange	42,980,701
x: exchange ratio	2.5923
Total number of shares held by Forte stockholders post Merger	111,420,103
Total number of shares held by Tocagen stockholder post Merger	25,242,652
Total number of outstanding common stock of combined company	136,662,755
Tocagen common stock par value	$0.001
Par value of combined company outstanding common stock	$137
Less: Par value of Tocagen common stock as of December 31, 2019	$23
Less: Par value of Forte common stock as of December 31, 2019	$1
Pro Forma Adjustment	$113

F. To record anticipated repayment of Tocagen's note payable along with final payment totaling $5.4 million upon closing of the Merger.

G. To record the following adjustments to accumulated deficit (in thousands):

Elimination of Tocagen's historical accumulated deficit as of December 31, 2019	$279,400
To record the impact of expensed IPR&D acquired from Tocagen	(25,987)
To record pre-combination compensation costs of Tocagen equity awards that vest upon the Merger	(480)
	$252,933

H. To record the following adjustments to additional paid-in-capital (in thousands):

Elimination of Tocagen's historical APIC	$(290,215)
To record proceeds raised from concurrent financing (A), net of par value of $46 and offering cost of $193	19,046
To record conversion of Forte preferred stock into common stock (D), less par value of $40	10,475
To record pre-combination compensation costs of Tocagen equity awards that vest upon the merger	480
To record capitalization of fair value of the estimated number of shares of the combined company to be owned by Tocagen stockholders, less par value of $50 (Note 3)	28,727
	$(231,487)

I. To eliminate Tocagen's historical balance of accumulated other comprehensive income.

J. Reflects the pro forma weighted average shares outstanding including the issuance of common shares to finance the Merger, without giving effect to the proposed reverse stock split.

	Year Ended December 31, 2019
Historical Forte weighted-average shares of common stock outstanding	10,000,000
Historical Forte convertible preferred stock outstanding	15,072,814
Forte common shares issued in concurrent financing	17,907,887
Total	42,980,701
Application of exchange ratio	2.5923
Adjusted Forte weighted-average shares outstanding	111,420,103
Historical Tocagen weighted-average shares of common stock outstanding	23,630,422
Number of assumed Tocagen share based awards	1,323,763
Total weighted-average shares outstanding	**136,374,288**

K. Reflects adjustment for Merger costs recorded in historical period that will not have a continuing impact on the pro forma income statement.

L. To reflect the reversal of interest expenses incurred on Tocagen's note payable which is expected to be repaid upon closing of the Merger.

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TOCAGEN INC.

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Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of Tocagen Inc.

Opinion on the Financial Statements

We have audited the accompanying balance sheets of Tocagen Inc. (the Company) as of December 31, 2019 and 2018, and the related statements of operations and comprehensive loss, changes in convertible preferred stock and stockholders' equity (deficit) and cash flows for each of the three years in the period ended December 31, 2019, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019, in conformity with U.S. generally accepted accounting principles.

The Company's Ability to Continue as a Going Concern

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the financial statements, the Company has suffered recurring losses from operations and has stated that substantial doubt exists about the Company's ability to continue as a going concern. Management's evaluation of the events and conditions and management's plans regarding these matters are also described in Note 1. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Adoption of ASU No. 2016-02

As discussed in Note 2 to the financial statements, the Company changed its method of accounting for leases in 2019 due to the adoption of Accounting Standards Update (ASU) No. 2016-02, Leases (Topic 842), and the related amendments.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2008
San Diego, California
February 27, 2020

TOCAGEN INC.
BALANCE SHEETS
(in thousands, except share and par value data)

	December 31, 2019	December 31, 2018
ASSETS		
Current assets:		
Cash and cash equivalents	$ 8,986	$ 40,813
Marketable securities	12,835	55,273
Prepaid expenses and other current assets	1,135	1,662
Total current assets	22,956	97,748
Property and equipment, net	1,689	3,973
Operating lease right-of-use asset	3,515	—
Other assets	—	1,360
Total assets	$ 28,160	$ 103,081
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 3,218	$ 3,404
Accrued liabilities	5,242	13,094
Notes payable, current portion	4,744	—
Deferred license revenue	—	36
Total current liabilities	13,204	16,534
Operating lease liability, net of current portion	4,027	—
Notes payable, net of current portion	—	26,201
Deferred rent, net of current portion	—	2,201
Other long term liabilities	81	—
Total liabilities	17,312	44,936
Commitments and contingencies (Note 12)		
Stockholders' equity		
Common stock, $0.001 par value; 200,000,000 shares authorized at December 31, 2019 and 2018, respectively; 23,899,261 and 23,000,151 shares issued and outstanding at December 31, 2019 and December 31, 2018, respectively	23	23
Additional paid-in capital	290,215	274,029
Accumulated deficit	(279,400)	(215,884)
Accumulated other comprehensive income (loss)	10	(23)
Total stockholders' equity	10,848	58,145
Total liabilities and stockholders' equity	$ 28,160	$ 103,081

The accompanying notes are an integral part of these financial statements.

TOCAGEN INC.
STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(in thousands, except share and per share data)

	Years Ended December 31,		
	2019	2018	2017
License revenue	$ 36	$ 18,036	$ 41
Operating expenses:			
Research and development	45,299	51,080	29,113
General and administrative	16,248	12,809	8,556
Total operating expenses	61,547	63,889	37,669
Loss from operations	(61,511)	(45,853)	(37,628)
Other income (expense), net:			
Interest income	1,564	1,534	595
Interest expense	(3,820)	(2,930)	(1,932)
Loss on disposal of assets	(1,187)	(7)	—
Gain on lease modification	1,439	—	—
Change in fair value of preferred stock warrants	—	—	37
Loss before income taxes	(63,515)	(47,256)	(38,928)
Income tax expense	1	1,699	1
Net loss	$ (63,516)	$ (48,955)	$ (38,929)
Other comprehensive income (loss):			
Net unrealized gain (loss) on investments	33	11	(34)
Comprehensive loss	$ (63,483)	$ (48,944)	$ (38,963)
Net loss per common share, basic and diluted	$ (2.69)	$ (2.44)	$ (2.66)
Weighted-average number of common shares outstanding, basic and diluted	23,630,422	20,059,541	14,607,609

The accompanying notes are an integral part of these financial statements.

TOCAGEN INC.
STATEMENTS OF CHANGES IN CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' EQUITY (DEFICIT)
(in thousands, except share and per share data)

	Convertible Preferred Stock		Common Stock		Additional Paid-In Capital	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Total Stockholders' Equity (Deficit)
	Shares	Amount	Shares	Amount				
Balance at December 31, 2016	46,163,605	131,413	2,202,517	2	3,581	(128,000)	—	(124,417)
Exercise of stock options	—	—	55,669	—	81	—	—	81
Issuance of common stock pursuant to employee stock purchase plan	—	—	50,121	—	426	—	—	426
Stock-based compensation	—	—	—	—	4,451	—	—	4,451
Fractional shares adjustment upon reverse stock split	—	—	2	—	—	—	—	—
Preferred stock converted into shares of common stock	(46,163,605)	(131,413)	6,690,066	7	131,403	—	—	131,410
Initial public offering of common shares, net of issuance costs	—	—	9,775,000	10	86,938	—	—	86,948
Convertible promissory notes converted into shares of common stock, net of issuance costs	—	—	1,109,176	1	11,056	—	—	11,057
Preferred stock warrant liabilities converted into warrants to purchase shares of common stock	—	—	—	—	89	—	—	89
Other comprehensive loss	—	—	—	—	—	—	(34)	(34)
Net Loss	—	—	—	—	—	(38,929)	—	(38,929)
Balance at December 31, 2017	—	—	19,882,551	20	238,025	(166,929)	(34)	71,082
Exercise of stock options	—	—	45,073	—	67	—	—	67
Issuance of common stock pursuant to employee stock purchase plan	—	—	72,527	—	594	—	—	594
Issuance of common stock, net of offering costs	—	—	3,000,000	3	27,994	—	—	27,997
Stock-based compensation	—	—	—	—	6,870	—	—	6,870
Issuance of common stock warrants	—	—	—	—	479	—	—	479
Other comprehensive loss	—	—	—	—	—	—	11	11
Net Loss	—	—	—	—	—	(48,955)	—	(48,955)
Balance at December 31, 2018	—	$ —	23,000,151	$ 23	$274,029	$ (215,884)	$ (23)	$ 58,145
Exercise of stock options	—	—	69,697	—	252	—	—	252
Issuance of common stock pursuant to employee stock purchase plan	—	—	69,324	—	299	—	—	299
Issuance of common stock, net of offering costs			760,089	—	7,575			7,575
Stock-based compensation	—	—	—	—	8,060	—	—	8,060
Other comprehensive loss	—	—	—	—	—	—	33	33
Net Loss	—	—	—	—	—	(63,516)	—	(63,516)
Balance at December 31, 2019	—	$ —	23,899,261	$ 23	$290,215	$ (279,400)	$ 10	$ 10,848

The accompanying notes are an integral part of these financial statements.

TOCAGEN INC.
STATEMENTS OF CASH FLOWS
(in thousands)

	Years Ended December 31,		
	2019	2018	2017
OPERATING ACTIVITIES			
Net loss	$ (63,516)	$ (48,955)	$ (38,929)
Adjustments to reconcile net loss to net cash used in operating activities:			
Stock-based compensation	8,060	6,870	4,451
Depreciation	843	625	292
Noncash interest expense	1,698	1,161	590
Change in fair value of preferred stock warrants	—	—	(37)
Accretion of discount on investments, net	161	(248)	(19)
Loss on disposal of property and equipment	1,212	—	—
Gain on lease modification	(1,439)	—	—
Changes in operating assets and liabilities:			
Prepaid expenses and other current assets	2,502	(208)	(679)
Accounts payable	(58)	1,260	304
Accrued liabilities	(8,911)	4,127	2,946
Deferred license revenue	(36)	(36)	(41)
Other	246	935	(11)
Net cash used in operating activities	(59,238)	(34,469)	(31,133)
INVESTING ACTIVITIES			
Proceeds from the sale/maturity of marketable securities	93,473	68,524	43,725
Purchases of marketable securities	(51,163)	(70,746)	(70,797)
Purchases of property and equipment	(428)	(1,968)	(655)
Proceeds from sale of property and equipment	437	—	20
Net cash provided by (used in) investing activities	42,319	(4,190)	(27,707)
FINANCING ACTIVITIES			
Proceeds from issuance of notes payable, net of issuance costs	—	26,325	—
Cash paid on extinguishment of debt	—	(8,631)	—
Principal payments on notes payable	(23,155)	(3,000)	(7,200)
Proceeds from issuance of common stock	551	661	507
Proceeds from offering of common stock, net of issuance costs	7,696	28,200	88,618
Proceeds from issuance of convertible promissory notes, net of issuance costs	—	—	7,338
Cash paid for deferred equity issuance costs		(16)	—
Net cash (used in) provided by financing activities	(14,908)	43,539	89,263
Net increase (decrease) in cash and cash equivalents	(31,827)	4,880	30,423
Cash and cash equivalents, beginning of period	40,813	35,933	5,510
Cash and cash equivalents, end of period	$ 8,986	$ 40,813	$ 35,933
SUPPLEMENTAL DISCLOSURES OF CASH FLOW INFORMATION			
Cash paid for interest	$ 2,290	$ 1,522	$ 1,210
Allowance for tenant improvements included in deferred rent	$ —	$ 1,243	$ —
Property and equipment purchases included in accounts payable and accrued liabilities	$ —	$ 178	$ 111
Fair value of common stock warrants issued in connection with notes payable	$ —	$ 479	$ —
Convertible preferred stock converted into shares of common stock	$ —	$ —	$ 131,410
Convertible promissory notes principal and accrued interest converted into shares of common stock	$ —	$ —	$ 11,057
Preferred stock warrant liabilities converted into warrants to purchase shares of common stock	$ —	$ —	$ 89
Deferred equity issuance costs paid in previous periods reclassified to equity on effective date of initial public offering	$ —	$ —	$ 1,574
Deferred equity issuance costs in accounts payable and accrued liabilities	$ —	$ 310	$ 96

The accompanying notes are an integral part of these financial statements.

TOCAGEN INC.
NOTES TO FINANCIAL STATEMENTS

1. Organization and Basis of Presentation

Tocagen Inc. (Tocagen or the Company) is a clinical-stage, cancer-selective gene therapy company focused on developing first-in-class, broadly-applicable product candidates designed to activate a patient's immune system against their own cancer. The Company's cancer-selective gene therapy platform is built on retroviral replicating vectors which are designed to selectively deliver therapeutic genes into the DNA of cancer cells. Tocagen's gene therapy approach is designed to fight cancer through immunotherapeutic mechanisms of action without the autoimmune toxicities commonly experienced with other immunotherapies. The Company views its operations and manages its business in one operating segment.

From inception through December 31, 2019, the Company has devoted substantially all of its efforts to developing its gene therapy platform and its lead product candidate, Toca 511 & Toca FC, as well as raising capital and building its infrastructure. The Company has not generated revenues from its principal operations.

On October 1, 2019, the Company commenced a corporate restructuring plan that included reducing its workforce by approximately 65% in order to preserve the Company's resources. The restructuring was approved by the Company's Board of Directors on October 1, 2019, and affected employees were informed on October 2, 2019. The Company incurred a personnel-related restructuring charge of $0.9 million for employee severance and other related termination benefits. As of December 31, 2019, $0.2 million of severance related payments remained unpaid.

ATM Facility

In November 2018, the Company entered into an Equity Distribution Agreement with Citigroup Global Markets Inc. ("Citigroup"), pursuant to which the Company may sell and issue shares of its common stock having an aggregate offering price of up to $30,000,000 from time to time through Citigroup, as its sales agent (the "ATM facility"). As of December 31, 2019, the Company has sold 760,089 shares of common stock and received net proceeds of $7.7 million under the ATM facility.

Public Offering

In December 2018, the Company completed a public offering in which it sold an aggregate of 3,000,000 shares of common stock at a price of $10.00 per share. Net proceeds from the public offering, after deducting underwriting discounts, commissions and offering expenses, were approximately $28.0 million.

Liquidity

The accompanying financial statements have been prepared on a basis which assumes the Company is a going concern, and do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classifications of liabilities that may result from any uncertainty related to the Company's ability to continue as a going concern. The Company has experienced net losses and negative cash flows from operating activities since its inception. As of December 31, 2019, the Company had an accumulated deficit of $279.4 million and working capital of $9.8 million available to fund future operations.

Based on the Company's operating plans, cash, cash equivalents and marketable securities may not be sufficient to fund operations for the next 12 months. As a result, there is substantial doubt about the Company's ability to continue as a going concern. All amounts due under the Term Loans (see note 5) have been classified as a current liability as of December 31, 2019 due to the considerations discussed above and the assessment that a material adverse change clause under the Term Loans is not within the Company's control. On October 31, 2019,

the Company entered into an amendment (the Second Amendment) to its Amended and Restated Loan and Security Agreement with the two lenders, dated May 18, 2018, which was further amended on August 3, 2018 (the Loan Agreement), and made a prepayment of $23.3 million, which amount was used to prepay i) a portion equal to $21.5 million of the outstanding principal of the Term Loans plus all accrued and unpaid interest thereon through the prepayment date, ii) prorated portion of the final payment with respect to the portion of such Term Loans being prepaid, plus iii) all outstanding lenders' expenses as of the date of the Second Amendment.

The Company may seek to fund its losses from operations and capital needs through debt and equity financing, or through collaborations or partnerships with other entities, such funding may not be available on a timely basis on terms acceptable to the Company, or at all. If the Company is unable to raise additional capital when required or on acceptable terms, the Company may be required to further scale back or discontinue the advancement of product candidates, further reduce headcount, reorganize, merge with another entity, file for bankruptcy, or cease operations.

As of December 31, 2019, the Company had cash, cash equivalents and marketable securities of $21.8 million.

Use of Estimates

The Company's financial statements are prepared in accordance with accounting principles generally accepted in the United States, which requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue and expenses and the disclosure of contingent assets and liabilities in the financial statements accompanying notes. Significant estimates in the Company's financial statements relate to clinical trial accruals, the valuation of equity awards and the development period used for license revenue recognition. Estimates are periodically reviewed in light of changes in circumstances, facts and experience. Actual results may differ from these estimates under different assumptions or conditions.

2. Summary of Significant Accounting Policies

Cash, Cash Equivalents and Marketable Securities

Cash consists of the balance in a readily available checking account. Cash equivalents consist of money market funds, corporate debt securities and certificates of deposit with remaining maturities of three months or less at the time of purchase, and are considered highly liquid investments. Marketable securities consist of corporate debt securities, commercial paper, U.S. treasury securities and asset-backed securities that have original maturities greater than three months at the time of purchase.

The Company classifies its investments as available-for-sale and records such assets at fair value in the balance sheet, with unrealized gains and losses, if any, reported in stockholders' equity. Realized gains and losses are calculated on the specific identification method and recorded to interest income.

A decline in the market value of any marketable security below cost that is determined to be other-than-temporary results in a revaluation of its carrying amount to fair value and a new cost basis for the security. Impairment losses are recognized in other expense in the statement of operations.

Concentration of Credit Risk and Off-Balance Sheet Risk

Financial instruments that potentially subject the Company to significant concentration of credit risk consist primarily of cash equivalents and marketable securities. The Company's investment policy includes guidelines for the quality of the related institutions and financial instruments, and defines allowable investments that the Company may invest in, which the Company believes minimizes the exposure to concentration of credit risk.

Prepaid Expenses and Other Current Assets

Prepaid expenses and other current assets primarily represent amounts related to insurance, clinical trial and manufacturing agreements, and investment interest receivable.

Property and Equipment

Property and equipment is stated at cost and depreciated over the estimated useful lives of the assets (three to five years) using the straight-line method. Leasehold improvements are depreciated using the straight-line method over the lesser of the remaining lease term or an estimated useful life .

Costs of major additions and betterments are capitalized and depreciated on a straight-line basis over their useful lives. Repairs and maintenance costs are expensed as incurred. Upon retirement or sale, the cost of assets disposed of and the related accumulated depreciation are removed from the accounts, and any resulting gain or loss is credited or charged to expense.

Deferred Equity Issuance Costs

Specific incremental costs directly attributable to an offering of securities are deferred and charged against the gross proceeds of the offering through additional paid-in capital.

Impairment of Long-Lived Assets

Long-lived assets consist of property and equipment. An impairment loss is recorded if and when events and circumstances indicate that assets might be impaired and the undiscounted cash flows estimated to be generated by those assets are less than the carrying amount of those assets. No impairment loss has been recognized for the years ended December 31, 2019 and 2018.

Fair Value of Financial Instruments

The Company’s financial instruments consist principally of cash, cash equivalents, marketable securities, prepaid expenses, other current assets, accounts payable and notes payable. The carrying amounts of these financial instruments approximate the related fair values due to the short-term maturities of these instruments.

The authoritative accounting guidance defines fair value, establishes a consistent framework for measuring fair value and expands disclosure for each major asset and liability category measured at fair value on either a recurring or nonrecurring basis. Fair value is defined as an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability. As a basis for considering such assumptions, the authoritative accounting guidance establishes a three-tier fair value hierarchy that prioritizes the inputs used in measuring fair value as follows:

Level 1: Observable inputs such as quoted prices in active markets;

Level 2: Inputs, other than the quoted prices in active markets, that are observable either directly or indirectly such as quoted prices for similar assets or liabilities, quoted prices in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities; and

Level 3: Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

Clinical Trial Accruals

Expenses related to clinical studies are based on estimates of the services received and efforts expended pursuant to the Company's contract arrangements. The financial terms of these agreements are subject to negotiation, vary from contract to contract and may result in uneven payment flows. There may be instances in which payments made to the Company's service providers will temporarily exceed the level of services provided and result in a prepayment of the clinical expense. Payments under some of these contracts depend on factors such as the successful enrollment of patients, site initiation and the completion of clinical milestones. The Company makes estimates of its accrued expenses as of each balance sheet date in its financial statements based on facts and circumstances known at that time. In accruing service fees, the Company estimates the time period over which services will be performed and the level of effort to be expended in each period. If the actual timing of the performance of services or the level of effort varies from its estimate, the Company adjusts the accrual or prepaid expense balance accordingly. Historically, the Company's estimated accrued liabilities have materially approximated actual expense incurred.

Revenue Recognition

Revenue generally consists of license revenue with upfront payments and development milestones considered probable of achievement.

Revenue is recognized when control of the promised goods or services is transferred to the Company's customers in an amount that reflects the consideration the Company expects to receive from its customers in exchange for those goods and services. This process involves identifying the contract with a customer, determining the performance obligations in the contract, determining the transaction price, allocating the contract price to the distinct performance obligations in the contract, and recognizing revenue when or as the Company satisfies the performance obligation(s).

At contract inception, the Company assesses the goods and services promised within each contract and assesses whether each promised good or service is distinct and determines that those are performance obligations. A performance obligation is considered distinct from other obligations in a contract when it provides a benefit to the customer either on its own or together with other resources that are readily available to the customer and is separately identified in the contract. The Company considers factors such as the research, manufacturing and commercialization capabilities of the collaboration partner and the availability of the associated expertise in the general marketplace. The Company considers a performance obligation satisfied once the Company has transferred control of a good or service to the customer, meaning the customer has the ability to use and obtain the benefit of the good or service. The Company recognizes revenue for satisfied performance obligations only when the Company determines there are no uncertainties regarding payment terms or transfer of control.

Collaborative Arrangements

The Company enters into collaborative arrangements with partners that may include payment to the Company of one or more of the following: (i) license fees; (ii) payments related to the achievement of developmental, regulatory, or commercial milestones; and (iii) royalties on net sales of licensed products. Where a portion of non-refundable upfront fees or other payments received are allocated to continuing performance obligations under the terms of a collaborative arrangement, they are recorded as contract liabilities and recognized as revenue when (or as) the underlying performance obligation is satisfied.

As part of the accounting for these arrangements, the Company must develop estimates and assumptions that require judgment to determine the underlying stand-alone selling price for each performance obligation which determines how the transaction price is allocated among the performance obligation(s). The stand-alone selling price may include items such as forecasted revenues, development timelines, discount rates, and probabilities of technical and regulatory success. The Company evaluates each performance obligation to determine if it can be satisfied at a point in time or over time. In addition, variable consideration must be evaluated to determine if it is constrained and, therefore, excluded from the transaction price.

License Fees

If a license to the Company's intellectual property is determined to be distinct from the other performance obligations identified in the arrangement, the Company recognizes revenues from non-refundable, upfront fees allocated to the license when the license is transferred to the licensee and the licensee is able to use and benefit from the license. For licenses that are bundled with other promises, the Company utilizes judgment to assess the nature of the combined performance obligation to determine whether the combined performance obligation is satisfied over time or at a point in time and, if over time, the appropriate method of measuring progress for purposes of recognizing revenue. The Company evaluates the measure of progress each reporting period and, if necessary, adjusts the measure of performance and related revenue recognition. Any such adjustments are recorded on a cumulative catch-up basis, which would affect license, collaboration or other revenues and earnings in the period of adjustment.

Milestone Payments

At the inception of each arrangement that includes milestone payments (variable consideration), the Company evaluates whether the milestones are considered probable of being reached and estimates the amount to be included in the transaction price. If it is probable that a milestone event would occur at the inception of the arrangement, the associated milestone value is included in the transaction price. Milestone payments that are not within the Company's control, such as regulatory approvals, are generally not considered probable of being achieved until those approvals are received. The transaction price is then allocated to each performance obligation on a relative stand-alone selling price basis, for which the Company recognizes revenue as or when the performance obligations under the contract are satisfied. At the end of each reporting period, the Company evaluates the probability of achievement of such milestones and any related constraint(s), and if necessary, may adjust the Company's estimate of the overall transaction price. Any such adjustments are recorded on a cumulative catch-up basis, which would affect license, collaboration or other revenues and earnings in the period of adjustment.

Royalties

For arrangements that include sales-based royalties, including milestone payments based on the level of sales, and for which the license is deemed to be the predominant item to which the royalties relate, the Company recognizes revenue at the later of (i) when the related sales occur, or (ii) when the performance obligation to which some or all of the royalty has been allocated has been satisfied (or partially satisfied). To date, the Company has not recognized any royalty revenue resulting from its collaborative arrangements.

Research and Development Costs

Research and development expenses consist primarily of salaries and other personnel related expenses including non-cash stock-based compensation costs, preclinical costs, clinical trial costs, costs related to acquiring and manufacturing clinical trial materials, contract services, facilities costs, overhead costs, and depreciation. All research and development costs are expensed as incurred.

Patent Costs

Costs related to filing and pursuing patent applications are recorded as general and administrative expense and expensed as incurred because recoverability of such expenditures is uncertain.

Grant Funding

The Company receives certain research and development funding through grants from nonprofit organizations that serve the brain cancer community. The Company evaluates the terms of each grant to assess

the Company's obligations, and such funding is recognized in the statement of operations as a reduction to research and development expense as the related costs are incurred to meet those obligations over the grant period. Certain grants contain repayment provisions contingent on future events, such as future revenue milestones related to the Company's lead product candidate under development. For each repayment provision, the Company assesses if it is obligated to repay the funds provided by the other parties regardless of the outcome of the funded research and development. For each arrangement, the Company also reviews the repayment provisions to determine the likelihood of repayment at the execution of each grant and on an ongoing basis. If the likelihood of repayment of a grant is determined to be remote and the Company is not obligated to repay the funds regardless of the outcome of the funded research and development, the grant is recognized as a reduction to research and development expense as related costs are incurred over the grant period. The Company subsequently reviews the repayment provisions of each grant at each reporting date and will record a related grant repayment liability if and when such repayment obligation is determined to be probable. If, at the execution of a grant with repayment provisions, the probability of repayment is probable, the Company will record the grant as a liability until such time as the grant requirements have been satisfied and the repayment provisions have lapsed.

Debt Issuance Costs

Debt issuance costs incurred to obtain debt financing are deferred and are amortized over the term of the debt using the effective interest method. The costs are recorded as a reduction to the carrying value of the debt and the amortization expense is included in interest expense in the statement of operations.

Warrants for Shares of Common Stock

The Company accounts for warrants for shares of common stock as equity instruments in the accompanying balance sheets at their fair value on the date of issuance because such warrants are indexed to the Company's common stock and no cash settlement is required except for (i) liquidation of the Company, or (ii) a change in control in which the common stockholders also receive cash.

Income Taxes

The Company accounts for income taxes under the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences that have been included in the financial statements. Under this method, deferred tax assets and liabilities are determined on the basis of the differences between the financial statements and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. The Company provides a valuation allowance against net deferred tax assets unless, based upon the available evidence, it is more likely than not that the deferred tax assets will be realized.

The Company records uncertain tax positions on the basis of a two-step process whereby (i) management determines whether it is more likely than not that the tax positions will be sustained on the basis of the technical merits of the position and (ii) for those tax positions that meet the more likely-than-not recognition threshold, management recognizes the largest amount of tax benefit that is more than 50 percent likely to be realized upon ultimate settlement with the related tax authority. The Company will recognize interest and penalties in income tax expense if and when incurred.

Comprehensive Income (Loss)

All components of comprehensive income (loss) are reported in the financial statements in the period in which they are recognized. Other comprehensive income (loss) is defined as the change in equity during a period from transactions and other events and circumstances from non-owner sources, including unrealized gains and losses on investments. The Company's only component of other comprehensive loss is unrealized gains (losses) on investments. Comprehensive gains (losses) have been reflected in the statements of operations and comprehensive loss for all periods presented.

Stock-Based Compensation

Stock-based compensation expense represents the cost of the grant date fair value of stock awards, including stock options, and stock purchase rights granted to employees and members of the Company's board of directors. For awards with time-based vesting provisions, the Company estimates the fair value of stock options on the date of grant using the Black-Scholes option pricing model and recognizes the expense over the requisite service period of the awards, which is generally the vesting period, on a straight-line basis. For awards with performance-based vesting provisions, the Company estimates the fair value of stock option grants on the date of grant, or the date when all of the terms of the grant have been agreed to, if later, and recognizes the expense based on the probability of the occurrence of the individual milestones at each reporting period. The expense is recognized over the implicit service period that commences once management believes the performance criteria are probable of being met. For purchase rights, the Company estimates the fair value of the purchase as of the plan enrollment date and recognizes expense on a straight-line basis over the applicable offering period. The Company accounts for forfeitures when they occur, and reverses any compensation cost previously recognized for awards for which the requisite service has not been completed, in the period that the award is forfeited.

Net Loss Per Share

Basic and diluted net loss per common share for the periods presented is computed by dividing net loss by the weighted-average number of common shares outstanding during the respective periods, without consideration of common stock equivalents as they are anti-dilutive. Common stock equivalents that could potentially dilute earnings in the future are comprised of shares issuable upon the conversion of options to purchase shares of common stock outstanding under the Company's equity incentive plan and warrants for the purchase of shares of common. For all periods presented, there is no difference in the number of shares used to calculate basic and diluted shares outstanding due to the Company's net loss position.

Common stock equivalents from potentially dilutive securities that are not included in the calculation of diluted net loss per share, because to do so would be anti-dilutive, are as follows:

	Years Ended December 31,		
	2019	2018	2017
Common stock options	4,334,935	3,476,847	2,589,348
Common stock warrants	66,514	67,238	10,660
Total	4,401,449	3,544,085	2,600,008

Recent Accounting Pronouncements

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)*. The new standard is aimed at making leasing activities more transparent and comparable. Under the new guidance, lessees are required to recognize substantially all leases on their balance sheet as a lease liability, which is a lessee's obligation to make lease payments arising from a lease, measured on a discounted basis and a right-of-use asset, which is an asset that represents the lessee's right to use, or control the use of, a specified asset for the lease term. The Company adopted Topic 842 on January 1, 2019 using the modified retrospective approach with a cumulative-effect adjustment as of January 1, 2019. The Company recognized a right-of-use asset and a lease liability on the

balance sheet for the discounted value of future lease payments from the date of adoption. The impact on the balance sheet as of the date of adoption was as follows (in thousands):

	ASC 840 January 1, 2019	ASC 842 January 1, 2019	Impact of Adoption
Balance Sheet			
Accrued liabilities	$ 154	$ 645	$ 491
Deferred rent, net of current portion	2,201	—	(2,201)
Operating lease right-of-use asset	—	8,060	8,060
Operating lease liability, net of current portion	—	9,770	9,770

In June 2018, the FASB issued ASU 2018-07, *Compensation- Stock Compensation (Topic 718), Improvements to Nonemployee Share-Based Payment Accounting*. This new standard is intended to simplify aspects of share-based compensation issued to non-employees by aligning the accounting for share-based payment awards issued to employees and non-employees as it relates to the measurement date and impact of performance conditions. The new standard became effective January 1, 2019 and did not have a material impact to the overall financial statements of the Company.

3. Fair Value of Financial Instruments

Fair Values of Assets Measured on a Recurring Basis

The following tables summarize the Company's assets that require fair value measurements on a recurring basis and their respective input levels based on the fair value hierarchy (in thousands):

		Fair Value Measurements at End of Period Using:		
	Total	Quoted Market Prices for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
December 31, 2019				
Marketable securities:				
Corporate debt securities	$ 3,700	$ —	$ 3,700	$ —
Commercial paper	5,485	—	5,485	—
Asset-backed securities	3,650	—	3,650	—
	$12,835	$ —	$ 12,835	$ —

		Fair Value Measurements at End of Period Using:		
	Total	Quoted Market Prices for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
December 31, 2018				
Cash equivalents:				
Corporate debt securities	$4,783	$ —	$ 4,783	$ —
Commercial paper	1,987	—	1,987	—
	$6,770	$ —	$ 6,770	$ —

	Total	Fair Value Measurements at End of Period Using: Quoted Market Prices for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Marketable securities:				
Corporate debt securities	$16,301	$ —	$ 16,301	$ —
Commercial paper	24,576	—	24,576	—
U.S. treasury securities	1,997	1,997	—	—
Asset-backed securities	12,399	—	12,399	—
	$55,273	$ 1,997	$ 53,276	$ —

Marketable Securities. For fair values determined by Level 1 inputs, which utilize quoted prices in active markets for identical assets, the level of judgment required to estimate fair value is relatively low. The fair values of investments in U.S. treasury securities were determined using Level 1 inputs.

Fair values determined by Level 2 inputs, which utilize data points that are observable such as quoted prices, interest rates and yield curves, require the exercise of judgment and use of estimates, that if changed, could significantly affect the Company's financial position and results of operations. Investments in corporate debt securities, certificates of deposit, commercial paper, repurchase agreements and asset-backed securities are valued using Level 2 inputs. Level 2 securities are initially valued at the transaction price and subsequently valued and reported utilizing inputs other than quoted prices that are observable either directly or indirectly, such as quotes from third-party pricing vendors.

There were no transfers in or out of Level 1 or Level 2 investments during the years ended December 31, 2019 or 2018.

At December 31, 2019 and 2018, the Company had investments in money market funds of $6.3 million and $30.9 million, respectively, that were measured at fair value using the net asset value per share (or its equivalent) that have not been classified in the fair value hierarchy. The funds invest primarily in U.S. government securities.

Fair Values of Other Financial Instruments

The carrying amounts of certain of the Company's financial instruments, including cash and accounts payable, approximate their respective fair values due to their short-term nature. The carrying amount of the Company's notes payable of $4.7 million at December 31, 2019 approximated their fair value as the terms of the notes are consistent with the market terms of transactions with similar profiles (Level 2 inputs).

4. Certain Financial Statement Caption Information

Marketable Securities

The following is a summary of the Company's marketable securities (in thousands):

	Maturity (in years)	Amortized Cost	Unrealized Gain	Unrealized Loss	Fair Value
December 31, 2019					
Corporate debt securities	1 or less	$ 2,699	$ 1	$ —	$ 2,700
Corporate debt securities	>1 and <5	999	1	—	1,000
Commercial paper	1 or less	5,481	4	—	5,485
Asset-backed securities	1 or less	3,646	4	—	3,650
		$ 12,825	$ 10	$ —	$12,835
December 31, 2018					
Corporate debt securities	1 or less	$ 10,013	$ 1	$ (4)	$10,010
Corporate debt securities	>1 and <5	6,293	2	(4)	6,291
Commercial paper	1 or less	24,584	—	(8)	24,576
U.S. treasury securities	1 or less	1,997	—	—	1,997
Asset-backed securities	1 or less	10,612	—	(8)	10,604
Asset-backed securities	>1 and <5	1,797		(2)	1,795
		$ 55,296	$ 3	$ (26)	$55,273

The Company has classified all of its available-for-sale investment securities, including those with maturity greater than one year, as current assets on the balance sheet based on the highly liquid nature of these investment securities and because these investment securities are considered available for use in current operations.

There were no impairments considered other-than-temporary during the periods presented, as it is management's intention and ability to hold the securities until a recovery of the cost basis or recovery of fair value. Gross realized gains and losses on sales of marketable securities were immaterial for all periods presented.

Property and Equipment

Property and equipment is comprised of (in thousands):

	December 31,	
	2019	2018
Laboratory equipment	$ 2,184	$ 4,445
Computers, software and office equipment	252	322
Furniture and fixtures	216	610
Leasehold improvements	636	1,927
	3,288	7,304
Less: accumulated depreciation	(1,599)	(3,331)
	$ 1,689	$ 3,973

Depreciation expense was $0.8 million and $0.6 million for the years ended December 31, 2019 and 2018, respectively.

Accrued Liabilities

Accrued liabilities are comprised of (in thousands):

	December 31,	
	2019	2018
Clinical trial expenses	$2,404	$ 4,535
Payroll and other employee-related expenses	1,116	2,840
Contract manufacturing services	387	3,411
Lease liability	416	—
Professional fees	330	474
Interest payable	37	205
Other	552	1,629
Total accrued liabilities	$5,242	$13,094

5. Notes Payable

Loan Agreement

On October 30, 2015, the Company entered into a Loan and Security Agreement (Prior Agreement) with two lenders whereby it borrowed $18.0 million (the Initial Loans). Balances under the Prior Agreement were due in monthly principal and interest payments, with final maturity of the Initial Loans in May 2019. Each Initial Loan included a final payment fee of 7.95% of the original principal amount due upon maturity.

On May 18, 2018, the Company entered into an Amended and Restated Loan and Security Agreement, which was further amended on August 3, 2018, pursuant to which the lenders agreed to lend the Company $26.5 million as term loans (the Term Loans). Of the total proceeds, $8.6 million was applied to the repayment of outstanding principal, interest and final payment owed pursuant to the Initial Loans.

The Company evaluated the May 2018 Amended and Restated Loan and Security Agreement in accordance with ASC Topic 470, which requires assessment of whether the modification is considered a substantial modification, in which case the modification would be accounted for as a debt extinguishment. Based on the Company's evaluation, the May 2018 Amended and Restated Loan and Security Agreement was considered substantial and therefore the unamortized discount associated with the Prior Agreement was written off through interest expense and the principal balance of the Prior Agreement was written off.

The Term Loans will mature on December 1, 2022 (the Maturity Date) and the Company makes interest-only payments through January 1, 2020, followed by 36 equal monthly payments of principal and interest.

The Term Loans bear interest at a floating per annum rate equal to the greater of (i) 8.50% and (ii) the sum of (a) the prime rate reported in the Wall Street Journal on the last business day of the month that immediately proceeds the month in which the interest will accrue, plus (b) 3.75%. The Company will be required to make a final payment of 7.95% of the principal amount of the Term Loans payable on the earlier of (i) the Maturity Date, (ii) the acceleration of any Term Loans, or (iii) the prepayment of the Term Loans. On October 31, 2019, the Company entered into the Second Amendment and made a prepayment of $23.3 million, which amount was used to prepay i) a portion equal to $21.5 million of the outstanding principal of the Term Loans plus all accrued and unpaid interest thereon through the prepayment date, ii) prorated portion of the final payment with respect to the portion of such Term Loans being prepaid, plus iii) all outstanding lenders' expenses as of the date of the Second Amendment.

In connection with the Second Amendment, the lenders (i) agreed to waive any prepayment fee otherwise applicable to a prepayment of the Term Loans in connection with any prepayment of the Term Loans on or after

the date of the Second Amendment, (ii) consent to the sale of certain specified equipment, so long as the net cash proceeds from the sale of such assets are used to repay the Term Loans, and (iii) release their lien on the specified equipment upon the closing of any such sale. Under the Second Amendment, the Company has also agreed to grant a security interest in the Company's intellectual property as additional collateral to secure the Term Loans for the ratable benefit of the lenders.

In conjunction with the Loan Agreement, the Company issued the lenders warrants exercisable for 56,578 shares of common stock (the Warrants). The Warrants are exercisable in whole or in part, immediately, and have a per share exercise price of $9.35. The Warrants will terminate on the earlier of May 18, 2028 or the closing of a certain merger or consolidation transaction. The Company recorded the Warrants as a debt discount, which is a contra-liability against debt. The offset to the contra-liability is recorded as additional paid in capital in the Company's balance sheet as the Warrants were determined to be an equity instrument. The Company determined the fair value of the Warrants at the date of issuance was $0.5 million using the Black-Scholes option pricing model based on significant unobservable inputs (Level 3) with an expected term of 10 years, volatility of 85.6%, risk free rate of 3.1% and expected dividend of 0%.

The costs incurred to issue the Term Loans of $0.1 million were deferred and are included in the discount to the carrying value of the Term Loans in the accompanying balance sheet. The deferred costs and the final payment fee are amortized to interest expense over the expected term of the Term Loans using the effective interest method with an effective interest rate of 10.7%.

The aggregate carrying amounts of the Term Loans and Initial Loans are comprised of the following, as applicable (in thousands):

	December 31,	
	2019	2018
Principal	$5,000	$26,450
Add: accreted liability for final payment fee	138	276
Less: unamortized discount	(394)	(525)
	$4,744	$26,201

The Term Loans are secured by all of the Company's assets, including intellectual property. The Company is also required to maintain its primary operating accounts at all times with one of the lenders. The Loan Agreement contains customary conditions of borrowing, events of default and covenants, including covenants that restrict the Company's ability to dispose of assets, merge with or acquire other entities, incur indebtedness and make distributions to holders of its capital stock. Should an event of default occur, including the occurrence of a material adverse change, the Company could be liable for immediate repayment of all obligations under the Loan Agreement. As of December 31, 2019, the Company was in compliance with the covenants contained in the Loan Agreement.

Based on the Company's operating plans, cash, cash equivalents and marketable securities may not be sufficient to fund operations for the next 12 months. As a result, there is substantial doubt about the Company's ability to continue as a going concern. All amounts due under the Term Loans have been classified as a current liability on the balance sheet.

Future maturities of the Term Loans, including the final payment fee, as of December 31, 2019 are as follows (in thousands):

	December 31, 2019
Year ending December 31, 2020	1,667
Year ending December 31, 2021	1,667
Year ending December 31, 2022	2,064
Notes payable, current portion	5,398
Unaccreted balance for final payment fee on Loans	(260)
Unamortized discounts	(394)
	4,744

6. Stockholders' Equity

Upon completion of the Company's IPO, all of the Company's outstanding shares of convertible preferred stock were converted into an aggregate of 6,690,066 shares of the Company's common stock. As of December 31, 2019, the Company's authorized capital stock consists of 200,000,000 shares of common stock, par value $0.001 per share, and 10,000,000 shares of preferred stock, par value $0.001 per share.

In December 2018, the Company completed a public offering in which it sold an aggregate of 3,000,000 shares of common stock at a price of $10.00 per share. Net proceeds from the public offering, after deducting underwriting discounts, commissions and offering expenses, were approximately $28.0 million.

During the year ended December 31, 2019, the Company sold 760,089 shares of common stock under the Sales Agreement, respectively. The sales were made at a weighted average price of $10.41. The Company received net proceeds of $7.7 million during the year ended December 31, 2019 and may sell up to an additional $22.1 million in shares of the Company's common stock under the Sales Agreement.

Common Stock Reserved for Future Issuance

Common stock reserved for future issuance as of December 31, 2019 and 2018 is as follows:

	December 31,	
	2019	2018
Issued and Outstanding:		
Stock options	4,334,935	3,476,847
Warrants for common stock	66,514	67,238
Shares reserved for issuance under the ESPP	486,855	326,178
Shares reserved for future award grants	543,284	451,063

7. Equity Incentive Plans and Stock-Based Compensation

2017 Equity Incentive Plan

In March 2017, the Company's board of directors and stockholders approved and adopted the Company's 2017 Equity Incentive Plan, which became effective on April 12, 2017 and was subsequently amended September 30, 2018 and further amended February 12, 2019 (the 2017 Plan). The 2017 Plan provides for the grant of incentive stock options (ISOs), nonstatutory stock options, stock appreciation rights, restricted stock awards, restricted stock unit awards, performance-based stock awards, other forms of equity compensation and performance cash awards. ISOs may be granted only to employees. All other awards may be granted to employees, including officers, and to non-employee directors and consultants of the Company and its affiliates.

Initially, 1,600,000 new shares of common stock were approved for issuance under the 2017 Plan and, on April 12, 2017, 75,517 shares of common stock reserved for issuance under the Company's 2009 Equity Incentive Plan, as amended (the 2009 Plan), were added to the shares initially reserved under the 2017 Plan. No further grants will be made under the 2009 Plan and any shares subject to outstanding stock options under the 2009 Plan that would otherwise be returned to the 2009 Plan will instead be added to the shares reserved under the 2017 Plan. Additionally, the number of shares of common stock reserved for issuance under the 2017 Plan will automatically increase on January 1 of each calendar year through January 1, 2027, by 4% of the total number of shares of the Company's capital stock outstanding on December 31 of the preceding calendar year, or a lesser number of shares determined by the Company's board of directors.

All grants of options to purchase common stock under the 2017 Plan expire in 10 years. Grants with time-based vesting provisions are generally subject to a four-year vesting schedule with 25% vesting after the first year, and the balance vesting monthly over the remaining 36 months. Grants with performance-based vesting provisions vest upon the achievement of three separate development and regulatory milestones, with one-third of the options vesting upon the achievement of each milestone.

The following table summarizes stock option activity under the Company's equity incentive plans for the year ended December 31, 2019:

	Shares Subject to Options	Weighted-Average Exercise Price per Share	Weighted-Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value (in thousands)
Options Outstanding at December 31, 2018	3,476,847	$ 12.67		
Granted	1,841,380	$ 7.60		
Exercised	(69,697)	$ 3.61		
Forfeitures and cancellations	(913,595)	$ 11.67		
Options Outstanding at December 31, 2019	4,334,935	$ 10.87	7.2	
Options Exercisable at December 31, 2019	2,128,758	$ 11.58	5.8	$ —

The following table summarizes certain information regarding stock options (in thousands):

	Years Ended December 31,		
	2019	2018	2017
Fair value of options vested during the period	$6,336	$6,318	$2,194
Cash received from options exercised during the period	$ 252	$ 67	$ 81
Intrinsic value of options exercised during the period	$ 491	$ 508	$ 677

The aggregate intrinsic value of options is calculated as the difference between the exercise price of the options and the fair value of the Company's common stock for those options that had exercise prices lower than the fair value of the Company's common stock.

2017 Employee Stock Purchase Plan

In March 2017, the Company's board of directors and stockholders approved and adopted the Company's 2017 Employee Stock Purchase Plan (ESPP) whereby eligible employees may elect to withhold up to 15% of their earnings to purchase shares of the Company's common stock at a price per share equal to the lower of (i) 85% of the fair market value of a share of the Company's common stock on the first date of an offering or (ii) 85% of the fair market value of a share of the Company's common stock on the date of purchase (purchase right). The ESPP became effective on April 12, 2017. Initially, 250,000 shares of the Company's common stock were approved for issuance under the ESPP pursuant to purchase rights granted to the Company's employees or to

employees of any of the Company's designated affiliates. The number of shares of common stock reserved for issuance will automatically increase on January 1 of each calendar year through January 1, 2027, by the lesser of (a) 1% of the total number of shares of the Company's common stock outstanding on December 31 of the preceding calendar year, (b) 300,000 shares, or (c) a number determined by the Company's board of directors that is less than (a) and (b).

As of December 31, 2019, the Company had issued 191,972 shares of common stock under the ESPP, with 69,324 of such shares of common stock being issued during the year ended December 31, 2019. The Company had 486,855 shares available for future issuance under the ESPP as of December 31, 2019. Effective December 11, 2019, the Company suspended the ESPP for any additional offering periods after December 10, 2019. Any enrollments that have been submitted to date for the next enrollment period that was scheduled to begin on December 11, 2019 have been cancelled.

Stock-Based Compensation Expense

The weighted average assumptions used in the Black-Scholes option pricing model to determine the fair value of the employee stock option grants with both time-based and performance-based vesting provisions and stock purchase rights were as follows:

	Years Ended December 31,		
	2019	**2018**	**2017**
Time based stock options			
Risk-free interest rate	2.2%	2.7%	2.0%
Volatility	82.6%	85.9%	82.2%
Dividend yield	0%	0%	0%
Expected term (in years)	5.9	6.1	6.1
Grant date fair value per share	$5.31	$8.12	$10.39
Performance based stock options			
Risk-free interest rate	—	—	2.1%
Volatility	—	—	75.9%
Dividend yield	—	—	0%
Expected term (in years)	—	—	6.3
Grant date fair value per share	$ —	$ —	$ 6.73
Employee stock purchase plan			
Risk-free interest rate	2.6%	2.5%	1.2%
Volatility	71.6%	78.1%	69.8%
Dividend yield	0%	0%	0%
Expected term (in years)	0.5	1.1	1.3
Grant date fair value per share	$4.44	$5.02	$ 4.61

Risk-free interest rate. The Company bases the risk-free interest rate assumption on U.S. Treasury constant maturities with maturities similar to those of the expected term of the award being valued.

Expected volatility. Due to the Company's limited trading of its common stock and lack of company-specific historical or implied volatility data, the Company has based its estimate of expected volatility on the historical volatility of a group of similar companies in the life sciences industry whose shares are publicly traded. The Company selects the peer group based on comparable characteristics, including development stage, product pipeline, and enterprise value. The Company computes historical volatility data using the daily closing prices for the selected companies' shares during the equivalent period of the calculated expected term of the stock-based awards. The Company will continue to apply this process until sufficient amount of historical information regarding the volatility of its own stock price become available.

Expected term. The expected term of employee stock options granted with time-based vesting provisions was calculated using the simplified method which utilizes the midpoint between the weighted average time of vesting and the end of the contractual term. The expected term of employee stock options granted with performance-based vesting provisions was calculated using the midpoint between the estimated service period and the contractual term of the option. These methods were utilized due to a lack of historical exercise behavior by the Company's employees. The expected term for stock purchase rights is the term from the date of grant to the date of purchase.

Expected dividend yield. The Company bases the expected dividend yield assumption on the fact that it has never paid, and does not expect to pay, dividends in the foreseeable future.

The Company has not recognized non-cash stock-based compensation expense for outstanding options to purchase 188,651 shares of common stock with performance-based vesting provisions after its evaluation that the occurrence of the individual milestones is not probable as of December 31, 2019.

Total non-cash stock-based compensation expense for all stock awards and purchase rights, net of forfeitures recognized as they occur, that was recognized in the statements of operations is as follows (in thousands):

	Years Ended December 31,		
	2019	2018	2017
Research and development	$3,269	$3,023	$1,783
General and administrative	4,791	3,847	2,668
Total	$8,060	$6,870	$4,451

Unrecognized compensation expense for stock options at December 31, 2019 was $12.1 million which is expected to be recognized over a weighted-average period of 2.5 years.

8. License and Collaboration Agreements

ApolloBio License

On April 18, 2018, the Company entered into a License Agreement (the License Agreement) with Beijing Apollo Venus Biomedical Technology Limited and ApolloBio Corp. (collectively, ApolloBio), which became effective in July 2018, pursuant to which the Company granted to ApolloBio an exclusive license to develop and commercialize Toca 511 & Toca FC within the greater China region, including mainland China, Hong Kong, Macao and Taiwan (the Licensed Territory).

Under the License Agreement, the Company has received net proceeds of $15.2 million which is comprised of a $16.0 million up-front payment and a $2.0 million development milestone payment less $1.7 million in foreign income taxes and $1.1 million in certain foreign non-income taxes. The foreign income taxes were recorded as income tax expense and the foreign non-income taxes were recorded as a general and administrative expense, on the statement of operations during the year ended December 31, 2018.

The Company is eligible to receive up to an aggregate $111.0 million, less withholding and other taxes, upon the achievement of specified development and commercial milestones. The Company completed its planned enrollment of 380 patients in the Toca 5 clinical trial in 2018 and earned a $2.0 million development milestone payment. The Company is also eligible for low double-digit tiered royalty payments based on annual net sales of licensed products in the Licensed Territory, subject to reduction under specified circumstances. ApolloBio will be responsible for all development and commercialization costs in the Licensed Territory. Future payments by ApolloBio are subject to the People's Republic of China (PRC) currency exchange approval and may be subject to other approvals by PRC authorities.

Unless earlier terminated, the License Agreement will expire upon the expiration of the last-to-expire royalty term for any and all licensed products, which royalty term is, with respect to a licensed product in a particular region (*i.e.*, mainland China, Hong Kong, Macao and Taiwan) of the Licensed Territory (each, a Region), the latest of (i) 10 years after the first commercial sale of such licensed product in such Region, (ii) the expiration of all regulatory exclusivity as to such licensed product in such Region and (iii) the date of expiration of the last valid patent claim covering such licensed product in such Region. Either party may terminate the License Agreement upon a material breach by the other party that remains uncured following 60 days (or, with respect to any payment breach, 10 days) after the date of written notice of such breach. ApolloBio may terminate the License Agreement at any time by providing 90 days' prior written notice to the Company. In addition, the Company may terminate the License Agreement upon written notice to ApolloBio under specified circumstances if ApolloBio challenges the licensed patent rights.

Under Topic 606, the Company evaluated the terms of the License Agreement and the transfer of intellectual property rights (the "license") was identified as the only performance obligation as of the inception of the License Agreement. The Company determined that the transaction price under the License Agreement was comprised solely of the $16.0 million upfront payment. The future potential development and commercial milestone payments were not included in the transaction price as they were determined to be fully constrained. As part of the evaluation of the development and commercial milestone constraint, the Company determined that the achievement of such milestones is contingent upon success in future clinical trials and regulatory approvals, each of which was uncertain at the inception of the License Agreement. The Company will re-evaluate the transaction price each quarter or as uncertain events are resolved or other changes in circumstances occur. Future potential development and commercial milestone amounts would be recognized as revenue, if unconstrained. Any reimbursable program costs are recognized proportionately with the performance of the underlying services and are accounted for as a reduction to research and development expense and are excluded from the transaction price.

The entire $16.0 million transaction price was allocated to the license performance obligation. The license was delivered in connection with the execution of the License Agreement and the performance obligation was fully satisfied (transfer of intellectual property). Additionally, the Company earned a $2.0 million development milestone payment upon completion of the planned enrollment of 380 patients in the Toca 5 clinical trial.

9. Grant Agreements

In August 2017, the Company was awarded a $2.0 million grant by the U.S. Food and Drug Administration Office of Orphan Products Development to support its Phase 3 clinical trial (OOPD Grant). Under the grant agreement, the Company will be reimbursed for qualifying expenses over a four-year period subject to the availability of funds and satisfactory progress of the trial. The Company received reimbursable amounts of $0.5 million for each of the years ended December 31, 2019, 2018 and 2017 relating to the OOPD Grant as an offset against research and development costs incurred during the period.

10. Income Taxes

Significant components of the income tax expense are as follows (in thousands):

	Year ended December 31,		
	2019	2018	2017
Current			
Federal	$—	$ —	$—
State	1	1	1
Foreign	—	1,698	—
Total current provision	1	1,699	1
Deferred			
Federal	—	—	—
State	—	—	—
Total Deferred	—	—	—
Income Tax Expense	$ 1	$1,699	$ 1

The (benefit) provision for income taxes differs from the amount of income tax determined by applying the applicable U.S. statutory federal income tax rate to pretax income as a result of the following differences:

	Years Ended December 31,		
	2019	2018	2017
Federal statutory rate	21.0%	21.0%	34.0%
Adjustments for tax effects of:			
State taxes, net	— %	6.1%	5.7%
Withholding Tax	— %	(3.6)%	
Permanent adjustments	(1.4)%	(1.0)%	(4.5)%
Tax Cuts and Jobs Act	— %	— %	(3.7)%
Net operating loss carryovers not recognized	(18.8)%	(22.1)%	(30.4)%
Valuation allowance	1.1%	(5.9)%	(1.0)%
Other	(1.9)%	1.9%	(0.1)%
Effective income tax rate	— %	(3.7)%	— %

Deferred taxes are recognized for temporary differences between the basis of assets and liabilities for financial statement and income tax purposes. Significant components of the Company's deferred taxes are as follows (in thousands):

	December 31,	
	2019	2018
Deferred tax assets:		
Depreciation and amortization	$ 32	$ —
Deferred license revenue	—	10
Share-based compensation	3,793	3,432
Debt discount	79	137
Lease liability	935	644
Accrued liabilities and other	288	1,134
Total deferred tax assets	5,127	5,357
Less valuation allowance	(4,386)	(5,107)
Net deferred tax assets	$ 741	$ 250

	December 31,	
	2019	2018
Deferred tax liabilities:		
Right of use asset	$(739)	$ —
Depreciation and amortization	—	(250)
Other	(2)	—
Total Deferred tax liabilities	$(741)	$(250)
Net deferred taxes	$ —	$ —

The Company has evaluated the positive and negative evidence bearing upon the realizability of its deferred tax assets. Based upon the Company's history of operating losses, the Company has concluded that it is more likely than not that the benefit of its deferred tax assets will not be realized. Accordingly, the Company has provided a full valuation allowance for deferred tax assets as of December 31, 2019 and 2018. During 2019 and 2018, the valuation allowance decreased by $0.7 million and increased by $2.6 million, respectively.

The Company has federal and California net operating loss carryforwards which may be available to offset future income tax liabilities. As of December 31, 2019, the Company has federal net operating losses of $231.0 million, of which, $136.6 million begin expiring in 2028 unless previously utilized and $94.4 million that do not expire but are limited to 80% of taxable income in a given year. The Company has state net operating loss carryforwards of $76.0 million that begin to expire in 2028 unless previously utilized as of December 31, 2018. Excluded from the California net operating loss carryforward are net operating losses for the years ended December 31, 2013 through 2017 and 2019 which are impacted by a California Supreme Court ruling issued on December 31, 2015. This ruling held that taxpayers must use the single sales factor market based sourcing method in determining their California apportionment. As a result of the ruling, the Company has completed an analysis to determine the re-apportionment of its losses to California using the required single sales factor market sourcing method for 2013 through 2017 and 2019. In doing so, the Company treated its passive interest income as California-source income which results in a 100% apportionment percentage to California. While this portion may not reach the more-likely-than-not recognition threshold, the Company has excluded a cumulative net operating loss of $167.9 million from its California net operating loss carryforward.

As of December 31, 2019, the Company has federal and California research and development tax credit carryforwards of $29.2 million and $7.1 million, respectively. The federal research and development tax credits begin to expire in 2028 unless previously utilized. The California credits do not expire.

Pursuant to Internal Revenue Code (IRC) Sections 382 and 383, annual use of a company's net operating loss and tax credit carryforwards may be limited if there is a cumulative change in ownership of greater than 50% (by value) within a three-year period. The amount of the annual limitation is determined based on the value of the Company immediately prior to the ownership change. Subsequent ownership changes may further affect the limitation in future years. The Company has completed several equity offerings since its inception which may have resulted in a change in control as defined by Sections 382 and 383 of the IRC, or could result in a change in control in the future. The Company has not completed an IRC Section 382 and 383 analysis regarding the limitation of net operating loss and research and development credit carryforwards. Until such an analysis has been completed, the Company has removed the deferred tax assets for net operating losses of $53.8 million and federal and California research and development credits of approximately $34.8 million from its deferred tax asset schedule, and has recorded a corresponding decrease to its valuation allowance. When this analysis is finalized, the Company plans to update its unrecognized tax benefits accordingly. The Company does not expect this analysis to be completed within the next 12 months and, as a result, the Company does not expect that the unrecognized tax benefits will change within 12 months of this reporting date. Due to the existence of the valuation allowance, future changes in the Company's unrecognized tax benefits will not impact the Company's effective tax rate.

The Company's policy is to record interest and penalties relating to uncertain tax positions as a component of income tax expense. As of December 31, 2019 and 2018, there was no accrued interest or penalties for uncertain tax positions.

The Company is subject to taxation in the U.S. and various state jurisdictions. As of December 31, 2019, the Company's tax years beginning 2007 to date are subject to examination by federal and California taxing authorities due to the carry forward of unutilized net operating losses and research and development tax credits. To the extent the Company has tax attribute carryforwards, the tax years in which the attribute was generated may still be adjusted upon examination by the Internal Revenue Service or state tax authorities to the extent utilized in a future period.

11. Retirement Plan

The Company sponsors an employee savings plan that qualifies as a deferred salary arrangement under Section 401(k) of the IRC. Participating employees may defer up to the Internal Revenue Service annual contribution limit. The Company has elected to match 50% of an employee's contributions up to 6% of the employees' eligible salary beginning January 1, 2019. The Company made contributions of $0.3 million for the year ended December 31, 2019.

12. Commitments and Contingencies

Leases and Other Commitments

The Company leases its office and laboratory space located in San Diego, California, under an operating lease agreement (the Lease). The Lease commenced in March 2018. The term of the Lease is eight years and the Company has one option to extend the Lease for a period of five additional years.

In connection with the inception of the Lease, the Company was provided and fully utilized a tenant improvement allowance of $1.2 million. The Lease provides for an abatement of a portion of the lease payments for the first nine months of the lease term and includes escalation clauses in the future.

On December 16, 2019, the Company entered into a First Amendment (the "Lease Amendment") to the Lease. Under the terms of the Lease Amendment, the termination date of a portion of the premises containing approximately 21,180 rentable square feet was accelerated from June 30, 2026 to December 31, 2019. The Lease Amendment eliminated further rents due for the terminated rentable square feet, including aggregate base rent over the remaining term of approximately $7.6 million.

As of December 31, 2019, the Company continues to lease approximately 17,669 rentable square feet from the Landlord.

As of December 31, 2019, future annual minimum rental payments payable under the Lease are as follows (shown in thousands):

Years ended December 31:	
2020	882
2021	913
2022	945
2023	978
2024	1,012
Thereafter	1,580
Total	$6,310

The Company enters into service agreements with indemnification clauses in the ordinary course of business. Pursuant to such clauses, the Company indemnifies, defends, holds harmless, and agrees to reimburse the indemnified party for losses suffered or incurred by third party claims arising out of the indemnified party's performance of service. The Company has not incurred costs to defend lawsuits pursuant to these indemnification clauses.

Legal Proceedings

From time to time, the Company may be involved in various claims and legal proceedings relating to claims arising out of the Company's operations. The Company is not currently a party to any legal proceedings that, in the opinion of management, are likely to have a material adverse effect on the Company's business. Regardless of outcome, litigation can have an adverse impact on the Company because of defense and settlement costs, diversion of management resources and other factors.

13. Selected Quarterly Financial Data (unaudited)

The following table contains unaudited quarterly financial information for the years ended December 31, 2019 and 2018. The Company believes that the following information reflects all normal recurring adjustments necessary for a fair statement of the information for the periods presented. The operating results for any quarter are not necessarily indicative of results for any future period.

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Year Ended December 31, 2019				
Operating expenses	$ 16,880	$ 16,824	$ 17,132	$ 10,711
Net loss	(17,084)	(17,114)	(18,735)	(10,583)
Net loss per common share, basic and diluted	$ (0.74)	$ (0.72)	$ (0.78)	(0.45)
Year Ended December 31, 2018				
Operating expenses	$ 12,855	$ 15,336	$ 16,582	$ 19,116
Net loss	(12,880)	(16,089)	(383)	(19,603)
Net loss per common share, basic and diluted	$ (0.65)	$ (0.81)	$ (0.02)	(0.96)

14. Subsequent Events

Signed merger agreement

On February 19, 2020, the Company and Forte Biosciences, Inc. ("Forte") signed an Agreement and Plan of Merger and Reorganization ("Merger Agreement"). Upon the terms and subject to the satisfaction of the conditions described in the Merger Agreement, including approval of the transaction by the Company's stockholders, a wholly-owned subsidiary of the Company will be merged with and into Forte, with Forte surviving the Merger as a wholly-owned subsidiary of the Company.

The proposed Merger is structured as a stock-for-stock transaction whereby all of Forte's outstanding shares of common stock and securities convertible into or exercisable for Forte's common stock will be converted into the right to receive Tocagen common stock and securities convertible into or exercisable for Tocagen common stock. Under the exchange ratio formula in the Merger Agreement, the former Forte equityholders immediately before the Merger are expected to own approximately 74.5% of the outstanding capital stock of Tocagen, and the equityholders of Tocagen immediately before the Merger are expected to own approximately 25.5% of the outstanding capital stock of Tocagen, on a fully diluted basis using the treasury stock method subject to certain assumptions. We anticipate that the Merger will close in the second quarter of 2020.

Additional restructuring

The Company further reduced its workforce in 2020 as a result of the proposed Merger. The Company expects that it will incur personnel-related restructuring charges of approximately $3.0 million for employee severance and other related termination benefits. Severance payments are expected to be paid in full in the first half 2020. The estimates of costs that the Company expects to incur and the timing of payments thereof are subject to a number of assumptions and actual results may differ.

15. Unaudited Subsequent Events

On April 10, 2020, the Company made a prepayment of $4.8 million under the 2018 Loan Agreement, which amount was used to prepay i) the remaining outstanding principal of the Term Loans of $4.4 million, plus all accrued and unpaid interest thereon, ii) the remaining final payment with respect to the Term Loans and iii) all outstanding lenders' expenses as of the date of the Second Amendment. In connection with the Company's payment, the 2018 Loan Agreement was terminated and the lenders consented to the release of all liens under the 2018 Loan Agreement on the Company's assets, including intellectual property.

On April 17, 2020, the Company entered into an Asset Purchase Agreement with Denovo BioPharma LLC (Denovo) pursuant to which, among other things, Denovo agreed to acquire from the Company certain intellectual property rights, materials, know-how, and data, including those related to the Company's retroviral replicating vector technologies, including Toca 511 & Toca FC for a purchase price of $1.1 million. Under the terms of the Asset Purchase Agreement, the transaction will close upon the earlier of (a) immediately after the closing of the Merger and (b) promptly after the termination of the Merger Agreement.

FORTE BIOSCIENCES, INC.

Audited Financial Statements

For the years ended December 31, 2019 and December 31, 2018

FORTE BIOSCIENCES, INC.
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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders

Forte Biosciences, Inc.

Opinion on the Financial Statements

We have audited the accompanying balance sheets of **Forte Biosciences, Inc.** (the "Company") as of December 31, 2019 and 2018, and the related statements of operations, convertible preferred stock and stockholders' deficit, and cash flows for each of the two years in the period ended December 31, 2019, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2019, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB and in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

We have served as the Company's auditor since 2018.

/s/ Mayer Hoffman McCann P.C.

San Diego, California
March 24, 2020

FORTE BIOSCIENCES, INC.
BALANCE SHEETS

	December 31, 2019	December 31, 2018
Assets		
Current assets:		
Cash	$ 6,938,778	$ 5,015,634
Prepaid expenses and other current assets	567,422	56,045
Total current assets	7,506,200	5,071,679
Property and equipment, net	150,601	—
Total assets	$ 7,656,801	$ 5,071,679
Liabilities, convertible preferred stock and stockholders' deficit		
Current liabilities:		
Accounts payable	$ 1,568,734	$ 78,379
Accrued liabilities	343,216	71,251
Total current liabilities	1,911,950	149,630
Commitments and contingencies (Note 4)		
Series A Convertible Preferred Stock, $0.0001 par value; 15,072,819 shares authorized as of December 31, 2019 and 2018; 15,072,814 and 8,247,354 shares issued and outstanding as of December 31, 2019 and 2018, respectively; aggregate liquidation preference of $10,820,773 and $5,920,775 as of December 31, 2019 and 2018, respectively	10,514,638	5,658,977
Stockholders' deficit:		
Common stock, $0.0001 par value: 28,858,687 shares authorized as of December 31, 2019 and 2018; 10,000,000 shares issued and outstanding at December 31, 2019 and 2018	1,000	1,000
Additional paid-in capital	199,710	164,000
Accumulated deficit	(4,970,497)	(901,928)
Stockholders' deficit:	(4,769,787)	(736,928)
Total liabilities, convertible preferred stock and stockholders' deficit	$ 7,656,801	$ 5,071,679

The accompanying notes are an integral part of these financial statements.

FORTE BIOSCIENCES, INC.
STATEMENTS OF OPERATIONS

	Year Ended December 31, 2019	Year Ended December 31, 2018
Operating expenses:		
Research and development	$ 2,683,930	$ 422,602
General and administrative	1,380,306	265,680
Total operating expenses	4,064,236	688,282
Loss from operations	(4,064,236)	(688,282)
Other income (expense):		
Interest income (expense)	2,520	(173,380)
Other expenses	(6,853)	—
Net loss	$ (4,068,569)	$ (861,662)
Per share information:		
Net loss per share — basic and diluted	$ (0.41)	$ (0.10)
Weighted average shares outstanding, basic and diluted	10,000,000	8,958,904

The accompanying notes are an integral part of these financial statements.

FORTE BIOSCIENCES, INC.
STATEMENTS OF CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' DEFICIT

	Series A Convertible Preferred Stock		Common Stock		Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Deficit
	Shares	Amount	Shares	Amount			
Balance — December 31, 2017	—	$ —	—	$ —	$ —	$ (40,266)	$ (40,266)
Issuance of common stock to founder	—	—	10,000,000	1,000	—	—	1,000
Issuance of Series A convertible preferred stock, conversion of notes payable	1,143,303	656,623	—	—	—	—	—
Issuance of Series A convertible preferred stock, net of issuance cost of $ 97,645	7,104,051	5,002,354	—	—	—	—	—
Beneficial conversion feature on conversion of notes payable	—	—	—	—	164,000	—	164,000
Net loss	—	—	—	—	—	(861,662)	(861,662)
Balance — December 31, 2018	8,247,354	5,658,977	10,000,000	1,000	164,000	(901,928)	(736,928)
Issuance of Series A convertible preferred stock, net of issuance cost of $ 44,337	6,825,460	4,855,661	—	—	—	—	—
Stock based compensation	—	—	—	—	35,710	—	35,710
Net loss	—	—	—	—	—	(4,068,569)	(4,068,569)
Balance — December 31, 2019	15,072,814	$ 10,514,638	10,000,000	$ 1,000	$ 199,710	$ (4,970,497)	$ (4,769,787)

The accompanying notes are an integral part of these financial statements.

FORTE BIOSCIENCES, INC.

STATEMENTS OF CASH FLOWS

	Year Ended December 31, 2019	Year Ended December 31, 2018
Cash flows from operating activities:		
Net loss	$ (4,068,569)	$ (861,662)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation expense	10,996	—
Stock based compensation expense	35,710	—
Beneficial conversion feature on conversion of notes payable	—	164,000
Accrued interest converted to Series A preferred	—	6,623
Changes in operating assets and liabilities:		
Prepaid expenses and other current assets	2,873	(56,045)
Accounts payable	976,105	57,709
Accrued liabilities	271,965	71,251
Net cash used in operating activities	(2,770,920)	(618,124)
Cash flows from investing activities:		
Purchase of property and equipment	(161,597)	—
Net cash used in investing activities	(161,597)	—
Cash flows from financing activities:		
Proceeds from issuance of notes payable	—	630,104
Proceeds from issuance of convertible preferred stock, net of issuance costs	4,855,661	5,002,354
Proceeds from issuance of common stock	—	1,000
Net cash provided by financing activities	4,855,661	5,633,458
Net increase in cash	1,923,144	5,015,334
Cash — beginning of period	5,015,634	300
Cash — end of period	$ 6,938,778	$ 5,015,634
Non-cash investing and financing activities:		
Issuance of preferred stock for conversion of notes payable and accrued interest	$ —	$ 656,623
Conversion of accounts payable into note payable	$ —	$ 19,896

The accompanying notes are an integral part of these financial statements.

FORTE BIOSCIENCES, INC.

NOTES TO FINANCIAL STATEMENTS

1. Organization and Description of Business

Forte Biosciences, Inc., or the "Company" is a Delaware Corporation, incorporated under the laws of the State of Delaware on May 3, 2017. The Company's principal executive office is located in Torrance, California. The Company is developing a new topical therapeutic treatment for the treatment of atopic dermatitis.

Liquidity and Capital Resources

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern, which contemplates the realization of assets and the settlement of liabilities and commitments in the normal course of business. The financial statements do not reflect any adjustments relating to the recoverability and reclassification of assets and liabilities that might be necessary if the Company is unable to continue as a going concern. Since inception, the Company has incurred losses and negative cash flows from operations. For the year ended December 31, 2019, the Company incurred a net loss of $4,068,569, and used $2,770,920 of cash for operating activities in the year ended December 31, 2019. As of December 31, 2019, the Company had cash on hand of $6,938,778.

Management expects to continue to incur additional substantial losses in the foreseeable future as a result of the Company's research and development activities. However, the Company believes that its existing cash on hand as of December 31, 2019, will provide sufficient funds to enable it to meet its obligations for twelve months from the issuance of these financial statements. Future operations beyond 2020 will be reliant on additional equity or financing arrangements. There can be no assurances that, in the event that the Company requires additional financing, such financing will be available on terms which are favorable to the Company, or at all. If the Company is unable to raise additional funding to meet its working capital needs in the future, it will be forced to delay or reduce the scope of its research programs and/or limit or cease its operations.

Because of the numerous risks and uncertainties associated with pharmaceutical development, the Company is unable to predict the timing or amount of increased expenses or when or if it will start to generate revenues. Even if the Company is able to generate revenues, it may not be able to achieve or maintain profitability. If the Company fails to become profitable or is unable to sustain profitability on a continuing basis, then it may be unable to continue its operations at planned levels and be forced to reduce its operations.

2. Summary of Significant Accounting Policies

Basis of Presentation

The Company prepares its financial statements in accordance with U.S. generally accepted accounting principles (GAAP). Any reference in these notes to applicable guidance is meant to refer to the authoritative accounting principles generally accepted in the United States as found in the Accounting Standards Codification and Accounting Standards Update (ASU) of the Financial Accounting Standards Board ("FASB").

Use of Estimates

The preparation of the Company's financial statements requires management to make estimates and assumptions that impact the reported amounts of assets, liabilities, and expenses and the disclosure of contingent assets and liabilities in the Company's financial statements and accompanying notes. Significant management estimates that affect the reported amounts of assets and liabilities include useful lives of property and equipment, stock-based compensation and deferred tax assets. Although these estimates are based on the Company's knowledge of current events and actions it may undertake in the future, actual results may ultimately materially differ from these estimates and assumptions.

Segment Information

The Company's chief executive officer is the chief operating decision maker (CODM). The CODM reviews financial information presented on a basis. Resource allocation decisions are made by the CODM based on results. There are no segment managers who are held accountable by the CODM for operations, operating results, and planning for levels or components below the unit level. As such, the Company has concluded that there is one operating and reportable segment.

Cash

Cash includes deposits with commercial banks.

Property and Equipment

Property and equipment are recorded at cost and depreciated over their estimated useful lives using the straight-line method. Maintenance and repairs that do not improve or extend the lives of the respective assets are expensed to operations as incurred. Upon disposal, retirement, or sale of an asset, the related cost and accumulated depreciation is removed from the accounts and any resulting gain or loss is included in the results of operations. Estimated useful lives for property and equipment are as follows:

	Estimated Useful Lives
Manufacturing equipment	3 years

Impairment of Long-Lived Assets

The Company reviews long-lived assets for impairment when events or changes in circumstances indicate the carrying value of the assets may not be recoverable. Recoverability is measured by comparison of the book values of the assets to future net undiscounted cash flows that the assets or the asset groups are expected to generate. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the book value of the assets exceed their fair value, which is measured based on the estimated discounted future net cash flows arising from the assets or asset groups. No impairment losses on long-lived assets have been recorded through December 31, 2019.

Research and Development Costs

Research and development costs are expensed as incurred. Research and development expenses consist of costs incurred in performing research and development activities, including salaries and benefits, contract services, and other outside costs. The value of goods and services received from contract research organizations and contract manufacturing organizations in the reporting period are estimated based on the level of services performed, and progress in the period in cases when the Company has not received an invoice from the supplier.

Patent Costs

Costs to secure, defend and maintain patents are expensed as incurred, and are classified as general and administrative expenses due to the uncertainty of future benefits.

Income (Loss) Per Share

Basic per share data is computed by dividing net income or loss applicable to common stockholders by the weighted average number of common shares outstanding during the period, without consideration for common stock equivalents. Diluted per share data is computed by dividing net income or loss applicable to common stockholders by the weighted average number of common shares outstanding during the period increased to include, if dilutive, the number of additional common shares that would have been outstanding as calculated

using the treasury stock method. Potential common shares comprise of the Company's outstanding but unexercised options.

The number of stock options excluded from the diluted loss per share calculation for the year ended December 31, 2019 and 2018 presented because their effect would be anti-dilutive was 2,450,000 and 2,450,000, respectively.

Stock-Based Compensation

The Company issues stock-based awards to employees and non-employees, generally in the form of stock options. The Company accounts for stock-based compensation awards in accordance with ASC Topic 718, *Compensation—Stock Compensation* (ASC 718). As of January 1, 2019, the Company adopted the guidance in Accounting Standards Update ("ASU") 2018-07, "Compensation-Stock Compensation (Topic 718): Improvements to Nonemployee Share-Based Payment Accounting". Subsequent to adoption of ASU 2018-07, non-employee awards are no longer required to be remeasured at each financial period; instead they are measured on the grant date and fair value of the awards are recognized on a straight-line basis over the requisite service period. The adoption of ASU 2018-07 did not have a material impact on the Company's financial statements. Prior to adoption of ASU 2018-07, the fair value of the non-employees' awards were subject to re-measurement at each reporting date until the vesting date in accordance with ASC 505-50, *Equity-Based Payments to Non-Employees*.

The Company measures compensation cost for all equity awards for employees at their grant-date fair value and recognizes compensation expense over the requisite service period, which is generally the vesting period, on a straight-line basis. The grant date fair value of stock options is estimated using the Black-Scholes option pricing model, which requires management to make assumptions with respect to the fair value of the Company's common stock on the grant date, including the expected term of the award, the expected volatility of the Company's common stock, calculated based on a period of time generally commensurate with the expected term of the award, risk-free interest rates and expected dividend yields of the Company's common stock. The fair value of the shares of common stock underlying the Company's stock-based awards was determined on the grant date by the Company's Board of Directors based on a valuation estimate from management considering most recently available independent third-party valuation of the Company's common stock. The Company's Board of Directors also assessed and considered, with input from management, additional objective and subjective factors that it believed were relevant and which may have changed from the date of the most recent valuation through the grant date. Stock-based compensation expense for an award with a performance condition is recognized when the achievement of such performance condition is determined to be probable. If the outcome of such performance condition is not determined to be probable or is not met, no compensation expense is recognized and any previously recognized compensation expense is reversed. The Company classifies stock-based compensation expense in its statement of operations in the same manner in which the award recipient's salary and related costs are classified or in which the award recipient's service payments are classified.

Series A Convertible Preferred Stock

The Company records all convertible preferred stock at their respective transaction prices on the dates of issuance less issuance costs. Series A convertible preferred stock is classified as temporary equity and excluded from stockholders' equity as the potential redemption, in the event of a deemed liquidation event, is outside the Company's control.

Income Taxes

The Company uses an asset and liability approach to account for income taxes. The Company recognizes deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the financial reporting and tax bases of assets and liabilities. These differences are measured using the enacted statutory tax rates that are expected to be in effect for the years in which differences are expected to reverse.

Valuation allowances are provided when the expected realization of deferred tax assets does not meet a "more likely than not" criterion. The Company makes estimates and judgments about its future taxable income that are based on assumptions that are consistent with its plans and estimates. Should the actual amounts differ from those estimates, the amount of the valuation allowance could be materially impacted. Changes in these estimates may result in significant increases or decreases to the Company's tax provision in a period in which such estimates are changed, which in turn would affect net income or loss.

The Company recognizes tax benefits from uncertain tax positions if it believes the position is more likely than not to be sustained on examination by the taxing authorities based on the technical merits of the position. The Company makes adjustments to these reserves when facts and circumstances change, such as the closing of a tax audit or the refinement of an estimate. The provision for income taxes includes the effects of any reserves for tax positions that are not more likely than not to be sustained, as well as the related net interest and penalties.

Comprehensive Loss

Comprehensive loss includes net loss and other comprehensive income (loss) for the period. The Company did not have other comprehensive income (loss) items such as unrealized gains and losses. For the years ended December 31, 2019 and 2018, the comprehensive loss was equal to the net loss.

Recently Adopted Accounting Standards

In February 2016, the FASB issued ASU No. 2016-02, *Leases ("ASC 842"),* which supersedes all existing lease guidance. This guidance offers specific accounting guidance for a lessee, a lessor and sale and leaseback transactions. The new standard requires lessees to recognize an operating lease with a term greater than one year on their balance sheets as a right-of-use asset and corresponding lease liability, measured at the present value of the lease payments. Lessees are required to classify leases as either finance or operating leases. If the lease is effectively a financed-purchase by the lessee, it is classified as a financing lease, otherwise it is classified as an operating lease. This classification will determine whether lease expense is recognized based on an effective interest method or on a straight-line basis over the term of the lease. ASC 842 provides accounting guidance for transactions that meet specific criteria for a leaseback transaction. If the criteria are not met, the transaction is considered a "failed sale" and the transaction must be accounted for as a financing arrangement. The new standard was effective for the Company as of January 1, 2019. Upon adoption, lessees must apply a modified retrospective transition approach for leases existing at, or entered after, the beginning of the earliest comparative period presented in the financial statements. Adoption of this new guidance did not have an impact on the Company's financial position and results of operations.

In June 2018, the FASB issued ASU 2018-07, "*Compensation-Stock Compensation (Topic 718): Improvements to Nonemployee Share-Based Payment Accounting*", which expands the scope of Topic 718 to include share-based payment transactions for acquiring goods and services from non-employees. An entity should apply the requirements of Topic 718 to nonemployee awards except for specific guidance on inputs to an option pricing model and the attribution of cost (that is, the period of time over which share-based payment awards vest and the pattern of cost recognition over that period). The amendments specify that Topic 718 applies to all share-based payment transactions in which a grantor acquires goods or services to be used or consumed in a grantor's own operations by issuing share-based payment awards. The amendments also clarify that Topic 718 does not apply to share-based payments used to effectively provide (1) financing to the issuer or (2) awards granted in conjunction with selling goods or services to customers as part of a contract accounted for under Topic 606. The guidance is effective for the Company for fiscal years beginning after December 15, 2018. Early adoption is permitted, but no earlier than an entity's adoption date of Topic 606. The Company early adopted the guidance as of January 1, 2019, which did not have a material impact on the Company's financial statements.

In November 2016, the FASB issued ASU No. 2016-18, *Statement of Cash Flows Topic 230: Restricted Cash*, which requires the statement of cash flows to explain the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents. When cash, cash

equivalents, restricted cash and restricted cash equivalents are presented in more than one-line item on the balance sheet, the new guidance requires a reconciliation of the totals in the statement of cash flows to the related captions in the balance sheet. This reconciliation can be presented either on the face of the statement of cash flows or in the notes to the financial statements. The new standard was effective for the Company on January 1, 2019. The adoption of this standard did not have an impact on the Company's statement of cash flow presentation and disclosure.

Recently Issued Accounting Standards

From time to time, new accounting pronouncements are issued by the FASB or other standard setting bodies and adopted by us as of the specified effective date. Unless otherwise discussed, the Company believes that the impact of recently issued standards that are not yet effective will not have a material impact on the Company's its financial position or results of operations.

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments—Credit Losses*, which changes the accounting for recognizing impairments of financial assets. Under the new guidance, credit losses for certain types of financial instruments will be estimated based on expected losses. The new guidance also modifies the impairment models for available-for-sale debt securities and for purchased financial assets with credit deterioration since their origination. This update is effective for the Company as of January 1, 2020. The Company believes the adoption will modify the way the Company analyzes financial instruments, but it does not anticipate a material impact on its financial position or results of operations.

In August 2018, the FASB issued ASU 2018-13, *Fair Value Measurement ("ASC 820").* The new guidance removes, modifies and adds to certain disclosure requirements on fair value measurements in ASC 820. This new guidance will be effective for the Company as of January 1, 2020, and the Company does not anticipate the adoption will have a material impact on its financial position or results of operations.

In December 2019, the FASB issued ASU 2019-12, *Income Taxes ("ASC 740")*, which simplifies the accounting for income taxes by eliminating certain exceptions to the guidance in ASC 740 related to the approach for intra-period tax allocation, the methodology for calculating income taxes in an interim period and the recognition of deferred tax liabilities for outside basis differences. The new guidance also simplifies aspects of the accounting for franchise taxes and enacted changes in tax laws or rates and clarifies the accounting for transactions that result in a step-up in the tax basis of goodwill. The guidance is effective for calendar-year public business entities in 2021 and interim periods within that year. For all other calendar-year entities, it is effective for annual periods beginning in 2022 and interim periods in 2023. Early adoption is permitted. The Company does not expect adoption of this new guidance will have a material impact on its financial position or results of operations.

3. Balance Sheet Components

Prepaid Expenses and Other Current Assets

Prepaid expenses and other current assets, as of December 31, 2019 and 2018 consist of the following:

	As of December 31, 2019	As of December 31, 2018
Prepaid manufacturing expenses	$ 514,250	$ —
Other	53,172	56,045
Total Prepaid Expenses	$ 567,422	$ 56,045

Prepaid Manufacturing Expenses

Prepaid manufacturing expenses include raw materials, slot reservation fees and other amounts paid to contract manufacturing organizations.

Accrued Liabilities

Accrued liabilities, as of December 31, 2019 and 2018 consists of the following:

	As of December 31, 2019	As of December 31, 2018
Legal and professional fees	$ 140,688	$ 43,414
Compensation	175,000	—
Professional fees	27,528	27,837
Total Accrued Liabilities	$ 343,216	$ 71,251

4. Commitments and Contingencies

Concentrations of Credit Risk

Bank accounts in the United States are insured by the Federal Deposit Insurance Corporation (FDIC) up to $250,000. The Company's primary operating accounts significantly exceed the FDIC limits.

Indemnifications

As permitted under Delaware law, the Company indemnifies its officers, directors, and employees for certain events, occurrences while the officer, or director is, or was, serving at the Company's request in such capacity.

License to Patented Technology

In December 2017, the Company entered into an exclusive license agreement with the Department of Health and Human Services ("DHHS"). Under the agreement, the DHHS granted the Company an exclusive, sublicensable, worldwide license to certain patent rights under which Forte may develop and commercialize pharmaceutical and biological compositions comprising Gram-negative bacteria for the topical treatment of dermatological diseases and conditions (the "DHHS License"). Under the DHHS License, the Company is obligated to meet certain development benchmarks within certain time periods. If the Company is unable to meet any of these development benchmarks, the DHHS could terminate the license. In addition, the DHHS may terminate or modify the DHHS License in the event of a material breach or upon certain insolvency events that remain uncured following the date that is 90 days following written notice of such material breach or insolvency event. The DHHS also has the right to require the Company to grant mandatory sublicenses to the patent rights licensed from the DHHS to product candidates covered by other DHHS licenses under certain specified circumstances, including if it is necessary to meet health and safety needs that the Company is not reasonably satisfying or if necessary to meet requirements for public use specified by federal regulations, which the Company is not reasonably satisfying.

Under the DHHS License, the Company is obligated to pay the DHHS a minimum annual payment of $20,000 and is required to reimburse the DHHS for certain patent-related expenses. In addition, Forte may also be obligated to make milestone payments to the DHHS aggregating up to $105.5 million based on achieving specified development, regulatory and commercial milestones for the first licensed product. Such development milestone payments are the completion of patient enrollment in a phase 3 clinical trial and the completion of a phase 3 clinical trial demonstrating statistically significant efficacy benefit. The regulatory milestones are the receipt of the first FDA approval and the first non-USA regulatory agency approval. The commercial milestones are the first $100.0 million of annual net sales, the first $500.0 million of annual net sales, and the first $1,000.0 million of annual net sales. In addition, to the extent licensed products are approved for commercial sale, the Company is also obligated to pay the DHHS royalties within the range of 10% to 15% based on net sales of licensed products sold by the Company and if applicable, its sublicensees.

No milestones have been achieved as of December 31, 2019. The Company paid $20,000 and $31,150 in minimum royalty payments for the year ended December 31, 2019 and December 31, 2018, respectively. In addition, the Company paid $1,396 and $19,069 in reimbursed patent prosecution costs pursuant to this license for the year ended December 31, 2019 and December 31, 2018, respectively.

Lease Agreement

In April 2019, the Company entered into a lease agreement for certain office and laboratory space in Torrance, CA. The lease agreement is cancellable by the Company at any time with 30 day notice. The Company recorded total rent expenses of $17,800 for the year ended December 31 2019.

5. Convertible Notes

Between August 2018 and November 2018, the Company issued $650,000 in convertible notes at five percent (5%) interest due in August 2020 (the "Notes") for cash proceeds of $450,000 and $200,000 in converted liabilities from the Company's chief executive officer (See Note 9). In the event of a qualified financing, as defined in the agreement, the outstanding principal amount of the notes and all accrued interest would automatically convert into shares of preferred stock issued in such financing at 80% of the price per share paid by the other investors. On November 27, 2018 in conjunction with the Series A financing (see Note 6), the qualified financing occurred and total principal and accrued interest of approximately $657,000 was converted into 1,143,303 shares of Series A Convertible Preferred Stock. Additionally, the Company recorded interest expense of $164,000 related to the beneficial conversion feature, which represents the discount realized by the holders of the convertible notes upon the conversion.

6. Equity

On May 3, 2017, the Corporation was incorporated with 1,500 shares of common stock authorized. On November 27, 2018, the Board of Directors approved an amendment to the Company's Certificate of Incorporation resulting in 28,858,687 shares of common stock and 15,072,819 shares of Series A convertible preferred stock being authorized.

Series A Convertible Preferred Stock

On November 27, 2018, the Company entered into a preferred stock purchase agreement which authorized the sale and issuance of up to 8,247,354 shares of preferred stock. The Company issued 7,104,051 shares at $0.7179 per share for net proceeds of $5,002,354 and 1,143,303 shares for the conversion of $656,623 in convertible notes and interest. In addition, on January 2, 2019, the Company completed a second round of the Series A preferred stock financing and issued 6,825,460 shares at $0.7179 per share for net proceeds of $4,855,661.

The holders of the convertible preferred stock have the following rights:

Voting Rights

The holders of convertible preferred stock are entitled to vote on all matters and have the number of votes equal to the number of shares of common stock into which the shares of convertible preferred stock are convertible. Certain directors comprising the Board of Directors shall be elected by majority vote of the holders of convertible preferred stock. A majority vote of the holders of convertible preferred stock is required to liquidate or dissolve the Company, amend the Certificate of Incorporation or Bylaws, reclassify common stock or establish another class of capital stock, create shares that would rank senior to or authorize additional shares of convertible preferred stock, declare a dividend or make a distribution, change the authorized number of directors constituting the Board of Directors, or establish a new employee stock option plan.

Dividends

The holders of the outstanding shares of Series A convertible preferred stock are entitled to first receive, when and if declared by the Board of Directors, a non-cumulative dividend of eight percent (8%) of the Series A original issue price, prior to any dividends being paid to the common stockholders. No dividends have been declared as of December 31, 2019.

Conversion

Each share of Series A Preferred Stock shall be convertible, at the option of the holder thereof, at any time and from time to time, into such number of fully paid shares as determined by dividing the original Series A issue price of $0.7179 by the Series A Conversion Price, which is initially $0.7179, with certain possible adjustments as defined in the Company's revised Articles of Incorporation.

Liquidation Preference

The holders of the Series A convertible preferred stock have preferences in the event of any voluntary or involuntary liquidation, dissolution or winding-up of the Company, as defined in the Restated Certificate of Incorporation. The holders of Series A Preferred Stock shall be paid out of the assets of the Company available for distribution before any payment shall be made to the holders of common stock, in an amount per share equal to $0.7179 plus any dividends declared but unpaid. In the event the assets of the Company are insufficient to pay the holders of Series A Preferred Stock the full amount to which they are due, the holders of Series A Preferred Stock shall share ratably in any distribution of the assets available for distribution in proportion to the respective amounts which would otherwise be payable.

In addition, the Series A Convertible Preferred Stock can be redeemed upon certain liquidation events that are outside of the Company's control.

Common Stock

The voting, dividend and liquidation rights of the holders of common stock are subject to and qualified by the rights, powers and preferences of the holders of convertible preferred stock as summarized above.

Voting

The holders of common stock are entitled to one vote for each share of common stock held at the meeting of stockholders. Holders of common stock are not entitled to vote on any amendment of the Company's Certificate of Incorporation that relates to solely to the terms of preferred stock, either separately or as a class.

7. Stock-Based Compensation

Equity Plans

In December 2018, the Company adopted the 2018 Equity Incentive Plan (the "2018 Incentive Plan"). The number of stock-based awards initially reserved for issuance under the 2018 Incentive Plan was 2,785,868. The terms and conditions of stock-based awards are defined at the sole discretion of the Company's Board of Directors. The Company issues service-based awards, vesting over a defined period of service, and performance-based awards, vesting upon achievement of defined conditions. Service-based awards generally vest over a four-year period, with the first 25% of such awards vesting following twelve months of continued employment or service and the remaining awards vesting monthly in equal installments over the following thirty-six months. Stock options granted under the 2018 Incentive Plan expire ten years from the date of grant and the exercise price must be at least equal to the fair market value of common stock on the grant date.

At December 31, 2019, there were 335,868 shares available for future issuance under the 2018 Incentive Plan.

Options

The risk-free interest rate assumption for options is based on the U.S. Treasury yield curve rate at the date of grant with a maturity approximating the expected term of the option. The expected term assumption for options granted to employees is determined using the simplified method that represents the average of the contractual

term of the option and the weighted average vesting period of the option. The Company uses the simplified method because it does not have sufficient historical option exercise data to provide a reasonable basis upon which to estimate expected term. For non-employee options, the contractual term of the option issued is used as the expected term prior to adoption of ASU 2018-07. Subsequent to the adoptions of ASU 2018-07, the Company elected to use the simplified method to determine the expected term of the options. Assumptions as to expected volatility for the Company's common stock are based on estimates from the historical volatility of a peer group of public companies that the Company believes are similar in nature to us. The historical volatility is generally calculated based on a period of time commensurate with the expected term assumption. The assumed dividend yield is based upon the Company's expectation of not paying dividends in the foreseeable future. The fair value per share is determined by the Company's Board of Directors, as of the date of each grant based on the independent third-party valuations, taking into consideration various objective and subjective factors.

The underlying weighted-average assumptions used to value employee and non-employee stock options granted during 2018 using the Black-Scholes option-pricing were as follows. The weighted average grand date fair value of:

	For the year ended December 31, 2018
Fair value of common stock	$ 0.18
Risk-free interest rate	2.70%
Dividend yield	0.00%
Expected term of options (years)	6.08
Volatility	70.0%

There were no stock options granted during 2019.

Stock-Based Compensation Expense

Stock-based compensation expenses included in the Company's statement of operations for the year ended December 31, 2019 were:

	For the year ended December 31, 2019
Research and development	$ 6,770
General and administrative	28,940
	$ 35,710

The Company did not recognize stock-based compensation expense in 2018 because it was immaterial.

As of December 31, 2019, there was unrecognized stock-based compensation expense of $249,000, which is expected to be recognized over a weighted-average period of 2.3 years. The table below summarizes the stock option activity under the 2018 Incentive Plan:

	Number of Shares Outstanding	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value
Balances at December 31, 2017	—	$ —	—	
Granted	2,450,000	0.18	9.9	
Exercised	—	—		
Cancelled/Forfeited	—	—		
Balances at December 31, 2018	2,450,000	$ 0.18	9.9	
Granted	—	—		
Exercised	—	—		
Cancelled/Forfeited	—	—		
Balances at December 31, 2019	2,450,000	$ 0.18	9.0	$175,750
Vested and expected to vest at December 31, 2019	2,450,000	$ 0.18	9.0	$175,750
Exercisable at December 31, 2019	259,895	$ 0.17	9.0	$ 19,875

The aggregate intrinsic value of options at December 31, 2019 is based on the Company's estimated fair value of the stock price on that date of $0.25 per share.

8. Income Taxes

The Company did not record a provision for or benefit from income taxes for the years ended December 31, 2019 and 2018.

The reconciliations of income tax attributable to loss before the provision for income taxes at the U.S. federal statutory tax rate to income tax expense for the year ended December 31, 2019 and 2018 are as follows:

	December 31, 2019		December 31, 2018	
Income tax expense (benefit) at federal statutory rate	$ (854,399)	21%	$(177,084)	21%
Increase/(decrease) in tax resulting from:				
State income taxes	(283,839)	7%	(58,890)	7%
Change in valuation allowance	1,145,234	28%	232,188	28%
Tax rate change	—		3,786	0%
Other	(6,996)	0%	—	
Total	$ —	0%	$ —	0%

The primary components of temporary differences which give rise to the Company's net deferred tax assets and liabilities as of December 31, 2019 and 2018 are as follows:

	December 31, 2019	December 31, 2018
Assets:		
Accrual to cash adjustment	$ 401,899	$ —
Startup costs	478,886	—
Depreciation	3,281	—
Net operating loss	597,100	243,786
Total noncurrent deferred tax assets	1,481,166	243,786
Liabilities:		
State taxes	(92,146)	—
Total noncurrent deferred tax liabilities	(92,146)	—
Valuation allowance	(1,389,020)	(243,786)
Net deferred tax assets after valuation allowance	$ —	$ —

In determining the need for a valuation allowance, the Company considers all available positive and negative evidence, including scheduled reversals of deferred tax liabilities, projected future taxable income, tax planning strategies, and recent financial performance. Based on the review of all positive and negative evidence, including a historical cumulative pre-tax loss, the Company determined that a full valuation allowance should be recorded against all U.S. deferred tax assets at December 31, 2019 and 2018.

The gross federal and state net operating loss carryforwards of $2,001,002 and $2,001,002, respectively, begin to expire in 2038 and 2039, respectively. Of the $2,001,002 of federal net operating loss carryforwards, $11,151 was generated before January 1, 2018 and is subject to the 20-year carryforward period ("Pre-Tax Act losses"). The remaining $1,989,851 ("Post-Tax Act losses") can be carried forward indefinitely but is subject to the 80% taxable income limitation. The Pre-Tax Act U.S. federal and state net operating loss carryforwards will expire in varying amounts through 2039. Utilization of the net operating loss and tax credit carryforwards may become subject to annual limitations due to ownership change limitations that could occur in the future as provided by Section 382 of the Internal Revenue Code of 1986, as amended (the "Internal Revenue Code"), as well as similar state provisions. These ownership changes may limit the amount of the net operating loss and tax credit carryforwards that can be utilized annually to offset future taxable income.

Any uncertain tax positions would be related to tax years that remain open and subject to examination by the relevant tax authorities. The Company has no liabilities related to uncertain tax positions or unrecognized benefits as of the year end December 31, 2019 and 2018. The Company has not accrued for interest or penalties associated with unrecognized tax liabilities. The Company anticipates that there will be no material changes to the unrecognized tax benefit associated with uncertain tax positions over the next twelve months.

The Company is subject to U.S. federal income tax, as well as, income tax of multiple state tax jurisdictions. The Company is subject to U.S federal income tax and state income tax examination from 2017 onward.

9. Related Party Transactions

As discussed in Note 5, the Company issued $650,000 in convertible notes in 2018. The Company's founder and chief executive officer, Dr. Paul Wagner, paid expenses on behalf of the Company in 2018 and 2017 in the amounts of $69,202 and $19,896, respectively. Dr. Wagner loaned an additional $110,902 to the Company prior to the issuance of the Notes (Note 5) in August 2018. These amounts were treated as liabilities to Dr. Wagner and were converted into convertible notes payable in August 2018, with the same terms as the terms given to other noteholders. In November 2018, Dr. Wagner loaned the Company an additional $100,000 which amount was

recorded as an additional convertible note payable, with the same terms. Dr. Wagner's total loan to the Company of $300,000 was converted to preferred stock in November 2018 in the Series A preferred stock financing. Dr. Paul Wagner received 526,864 shares of preferred stock in exchange for his $300,000 notes and accrued interest.

10. Subsequent Events

On February 19, 2020, the Company and Tocagen Inc. ("Tocagen"), a publicly traded biotechnology company entered into an Agreement and Plan of Merger and Reorganization ("Merger Agreement"), which included the proposed business combination ("Merger") of the Company and a wholly owned subsidiary of Tocagen, with the Company as the surviving company, subject to shareholder approval.

The proposed Merger is structured as a stock-for-stock transaction whereby all of the Company's outstanding shares of common stock and securities convertible into or exercisable for the Company's common stock will be converted into the right to receive Tocagen common stock and securities convertible into or exercisable for Tocagen common stock. Under the exchange ratio formula in the Merger Agreement, the former equityholders of the Company immediately before the Merger are expected to own approximately 76.7% of the outstanding capital stock of the combined company, and the equityholders of Tocagen immediately before the Merger are expected to own approximately 23.3% of the outstanding capital stock of the combined company, on a fully diluted basis using the treasury stock method subject to certain assumptions. The Company anticipates that the Merger will close in the second quarter of 2020.

On February 19, 2020, the Company entered into certain Share Purchase Agreements with certain investors pursuant to which the Company issued 13,055,999 shares of common stock and warrants to purchase 13,055,999 shares of common stock for gross proceeds of $14.1 million at a price per share of $1.08.

On March 18, 2020, the Company entered into certain Share Purchase Agreements with certain investors pursuant to which the Company issued 4,851,888 common stock for gross proceeds of $5.2 million at a price per share of $1.08.

Annex A

Execution Version
Confidential

AGREEMENT AND PLAN OF MERGER AND REORGANIZATION

among:

TOCAGEN INC.,
a Delaware corporation;

TELLURIDE MERGER SUB, INC.,
a Delaware corporation; and

FORTE BIOSCIENCES, INC.,
a Delaware corporation

Dated as of February 19, 2020

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Exhibit C-2	Form of Parent Lock-Up Agreement
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Exhibit E	Post-Closing Officers and Directors
Exhibit F	Form of Company Stockholder Written Consent
Exhibit G	Form of Securities Purchase Agreement

AGREEMENT AND PLAN OF MERGER AND REORGANIZATION

THIS AGREEMENT AND PLAN OF MERGER AND REORGANIZATION (this "***Agreement***") is made and entered into as of February 19, 2020, by and among **Tocagen Inc.**, a Delaware corporation ("***Parent***"), **Telluride Merger Sub, Inc.,** a Delaware corporation and wholly owned subsidiary of Parent ("***Merger Sub***"), and **Forte Biosciences, Inc.**, a Delaware corporation (the "***Company***"). Certain capitalized terms used in this Agreement are defined in **Exhibit A**.

RECITALS

A. Parent and the Company intend to effect a merger of Merger Sub with and into the Company (the "***Merger***") in accordance with this Agreement and the DGCL. Upon consummation of the Merger, Merger Sub will cease to exist and the Company will become a wholly owned subsidiary of Parent.

B. The Parties intend that the Merger qualify as a "reorganization" within the meaning of Section 368(a) of the Code, and by executing this Agreement, the Parties intend to adopt a plan of reorganization within the meaning of Treasury Regulations Sections 1.368-2(g) and 1.368-3.

C. The Parent Board has unanimously (i) determined that the Contemplated Transactions are fair to, advisable and in the best interests of Parent and its stockholders, (ii) approved and declared advisable this Agreement and the Contemplated Transactions, including the authorization and issuance of shares of Parent Common Stock to the stockholders of the Company pursuant to the terms of this Agreement, the change of control of Parent, and other actions contemplated by this Agreement, and (iii) determined to recommend, upon the terms and subject to the conditions set forth in this Agreement, that the stockholders of Parent vote to approve the Parent Stockholder Matters.

D. The Merger Sub Board has unanimously (i) determined that the Contemplated Transactions are fair to, advisable, and in the best interests of Merger Sub and its sole stockholder, (ii) approved and declared advisable this Agreement and the Contemplated Transactions and (iii) determined to recommend, upon the terms and subject to the conditions set forth in this Agreement, that the stockholder of Merger Sub votes to adopt this Agreement and thereby approve the Contemplated Transactions.

E. The Company Board has unanimously (i) determined that the Contemplated Transactions are fair to, advisable and in the best interests of the Company and its stockholders, (ii) approved and declared advisable this Agreement and the Contemplated Transactions and (iii) determined to recommend, upon the terms and subject to the conditions set forth in this Agreement, that the stockholders of the Company vote to approve the Company Stockholder Matters.

F. Concurrently with the execution and delivery of this Agreement and as a condition and inducement to Parent's willingness to enter into this Agreement, (a) the officers, directors and stockholders of the Company listed on Section A-1 of the Company Disclosure Schedule (the "***Company Signatories***") (solely in their capacity as stockholders of the Company) are executing support agreements in favor of Parent in substantially the form attached hereto as **Exhibit B-1** (the "***Company Stockholder Support Agreement***") and (b) the officers, directors and stockholders of the Company listed on Section A-2 of the Company Disclosure Schedule (the **"*Company Lock-Up Signatories***") (solely in their capacity as stockholders of the Company) are executing lock-up agreements in substantially the form attached hereto as **Exhibit C-1** (the "***Company Lock-Up Agreement***").

G. Concurrently with the execution and delivery of this Agreement and as a condition and inducement to the Company's willingness to enter into this Agreement, (a) the officers and directors of Parent listed on Section A-1 of the Parent Disclosure Schedule (solely in their capacity as stockholders of Parent) are executing support agreements in favor of the Company in substantially the form attached hereto as **Exhibit B-2** (the "***Parent***

Stockholder Support Agreement") and (b) the officers and directors of Parent listed on Section A-2 of the Parent Disclosure Schedule (solely in their capacity as stockholders of Parent) are executing lock-up agreements in substantially the form attached hereto as **Exhibit C-2** (the "***Parent Lock-Up Agreement***").

H. It is expected that within three Business Days after the Registration Statement is declared effective, the Company Signatories which will consist of holders of at least 90% of the Company Capital Stock will execute and deliver an action by written consent in substantially the form attached hereto as **Exhibit F** (each, a "***Company Stockholder Written Consent***" and collectively, the "***Company Stockholder Written Consents***").

I. Immediately prior to the execution and delivery of this Agreement, certain investors have executed a Securities Purchase Agreement, substantially in the form attached hereto as **Exhibit G**, among the Company and the Persons named therein (representing an aggregate commitment no less than the Concurrent Investment Amount), pursuant to which such Persons will have agreed to purchase the number of shares of Company Common Stock set forth therein immediately prior to the Closing in connection with the Pre-Closing Financing (the "***Securities Purchase Agreement***").

AGREEMENT

The Parties, intending to be legally bound, agree as follows:

Section 1. DESCRIPTION OF TRANSACTION

1.1 **The Merger**. Upon the terms and subject to the conditions set forth in this Agreement, at the Effective Time, Merger Sub shall be merged with and into the Company, and the separate existence of Merger Sub shall cease. The Company will continue as the surviving corporation in the Merger (the "***Surviving Corporation***").

1.2 **Effects of the Merger**. The Merger shall have the effects set forth in this Agreement, the Certificate of Merger and in the applicable provisions of the DGCL. As a result of the Merger, the Company will become a wholly owned subsidiary of Parent.

1.3 **Closing; Effective Time**. Unless this Agreement is earlier terminated pursuant to the provisions of Section 9.1, and subject to the satisfaction or waiver of the conditions set forth in Sections 6, 7 and 8, the consummation of the Merger (the "***Closing***") shall take place remotely as promptly as practicable (but in no event later than the second Business Day following the satisfaction or waiver of the last to be satisfied or waived of the conditions set forth in Sections 6, 7 and 8, other than those conditions that by their nature are to be satisfied at the Closing, but subject to the satisfaction or waiver of each of such conditions), or at such other time, date and place as Parent and the Company may mutually agree in writing. The date on which the Closing actually takes place is referred to as the "***Closing Date***." At the Closing, the Parties shall cause the Merger to be consummated by executing and filing with the Secretary of State of the State of Delaware a certificate of merger with respect to the Merger, satisfying the applicable requirements of the DGCL and in a form reasonably acceptable to Parent and the Company (the "***Certificate of Merger***"). The Merger shall become effective at the time of the filing of such Certificate of Merger with the Secretary of State of the State of Delaware or at such later time as may be specified in such Certificate of Merger with the consent of Parent and the Company (the time as of which the Merger becomes effective being referred to as the "***Effective Time***").

1.4 **Certificate of Incorporation and Bylaws; Directors and Officers**. At the Effective Time:

(a) the certificate of incorporation of the Surviving Corporation shall be amended and restated in its entirety to read identically to the certificate of incorporation of Merger Sub as in effect immediately prior to the Effective Time, until thereafter amended as provided by the DGCL and such certificate of incorporation;

provided, *however*, that immediately prior to the Effective Time, the Surviving Corporation shall file an amendment to its certificate of incorporation to change the name of the Surviving Corporation to Forte Subsidiary, Inc. or such other name as the Company may reasonably determine prior to filing such amendment;

(b) the certificate of incorporation of Parent shall be identical to the certificate of incorporation of Parent immediately prior to the Effective Time, until thereafter amended as provided by the DGCL and such certificate of incorporation, *provided*, *however*, that at or prior to the Effective Time, Parent shall file an amendment to its certificate of incorporation to (i) change the name of Parent to "Forte Biosciences, Inc." and (ii) as contemplated by Section 5.3(a)(i), effect the Nasdaq Reverse Split and (iii) make such other changes as are mutually agreeable to Parent and the Company;

(c) the bylaws of the Surviving Corporation shall be amended and restated in their entirety to read identically to the bylaws of Merger Sub as in effect immediately prior to the Effective Time (except that the name of the Surviving Corporation in such bylaws shall reflect the name identified Section 1.4(a)), until thereafter amended as provided by the DGCL and such bylaws;

(d) the directors and officers of Parent, each to hold office in accordance with the certificate of incorporation and bylaws of Parent, shall be as set forth in Section 5.12 after giving effect to the provisions of Section 5.12; and

(e) the directors and officers of the Surviving Corporation, each to hold office in accordance with the certificate of incorporation and bylaws of the Surviving Corporation, shall be the directors and officers of Merger Sub.

1.5 **Conversion of Shares**.

(a) At the Effective Time, by virtue of the Merger and without any further action on the part of Parent, Merger Sub, the Company or any stockholder of the Company or Parent:

(i) any shares of Company Capital Stock held as treasury stock or held or owned by the Company, Merger Sub or any Subsidiary of the Company immediately prior to the Effective Time shall be canceled and retired and shall cease to exist, and no consideration shall be delivered in exchange therefor; and

(ii) subject to Section 1.5(c), each share of Company Capital Stock outstanding immediately prior to the Effective Time (excluding shares to be canceled pursuant to Section 1.5(a)(i) and excluding Dissenting Shares but including any shares of Company Capital Stock issued pursuant to the Pre-Closing Financing) shall be automatically converted solely into the right to receive a number of shares of Parent Common Stock equal to the Exchange Ratio (the "***Merger Consideration***").

(b) If any shares of Company Capital Stock outstanding immediately prior to the Effective Time are unvested or are subject to a repurchase option or a risk of forfeiture under any applicable restricted stock purchase agreement or other similar agreement with the Company, then the shares of Parent Common Stock issued in exchange for such shares of Company Capital Stock at the Effective Time will to the same extent be unvested and subject to the same repurchase option or risk of forfeiture, and certificates representing such shares of Parent Common Stock shall accordingly be marked with appropriate legends. The Company shall use its commercially reasonable efforts to take all actions that may be reasonably necessary to ensure that, from and after the Effective Time, Parent is entitled to exercise any such repurchase option or other right set forth in any such restricted stock purchase agreement or other agreement in accordance with its terms.

(c) No fractional shares of Parent Common Stock shall be issued in connection with the Merger, and no certificates or scrip for any such fractional shares shall be issued. Any holder of Company Capital Stock who would otherwise be entitled to receive a fraction of a share of Parent Common Stock (after aggregating all

fractional shares of Parent Common Stock issuable to such holder) shall, in lieu of such fraction of a share and upon surrender by such holder of a letter of transmittal in accordance with Section 1.8 and any accompanying documents as required therein, be paid in cash the dollar amount (rounded to the nearest whole cent), without interest, determined by multiplying such fraction by the Parent Closing Price.

(d) All Company Options outstanding immediately prior to the Effective Time under the Company Plan shall be treated in accordance with Section 5.5(a).

(e) All Company Warrants outstanding immediately prior to the Effective Time shall be treated in accordance with the terms thereof.

(f) Each share of common stock, $0.01 par value per share, of Merger Sub issued and outstanding immediately prior to the Effective Time shall be converted into and exchanged for one validly issued, fully paid and nonassessable share of common stock, $0.0001 par value per share, of the Surviving Corporation. Each stock certificate of Merger Sub evidencing ownership of any such shares shall, as of the Effective Time, evidence ownership of such shares of common stock of the Surviving Corporation.

(g) If, between the time of calculating the Exchange Ratio and the Effective Time, the outstanding shares of Company Capital Stock or Parent Common Stock shall have been changed into, or exchanged for, a different number of shares or a different class, by reason of any stock dividend, subdivision, reclassification, split (including the Nasdaq Reverse Split to the extent such split has not been previously taken into account in calculating the Exchange Ratio), or exchange of shares or other like change, the Exchange Ratio shall, to the extent necessary, be equitably adjusted to reflect such change to the extent necessary to provide the holders of Company Capital Stock, Parent Common Stock, Company Options and Company Warrants with the same economic effect as contemplated by this Agreement prior to such stock dividend, subdivision, reclassification, split (including the Nasdaq Reverse Split), or exchange of shares or other like change; *provided, however*, that nothing herein will be construed to permit the Company or Parent to take any action with respect to Company Capital Stock or Parent Common Stock, respectively, that is prohibited or not expressly permitted by the terms of this Agreement. For the avoidance of doubt, no such adjustment shall be made in respect of any Pre-Closing Financing.

1.6 **Calculation of Parent Net Cash**.

(a) For the purposes of this Agreement, the "***Anticipated Closing Date***" shall be the date, as agreed upon by Parent and the Company at least ten (10) calendar days prior to the Parent Stockholders' Meeting, to be the anticipated date for Closing. At least five calendar days prior to the Anticipated Closing Date, Parent shall deliver to the Company a schedule (the "***Net Cash Schedule***") setting forth, in reasonable detail, Parent's good faith, estimated calculation of the Parent Net Cash (determined in a manner substantially consistent with the manner in which such items were determined for Parent's most recent financial statement) (the "***Net Cash Calculation***") as of the Anticipated Closing Date, prepared and certified by Parent's Chief Financial Officer (or if there is no Chief Financial Officer, the principal accounting officer). Parent shall make available to the Company, or its accountants and/or counsel, the work papers and back-up materials used or useful in preparing the Net Cash Schedule, as reasonably requested by the Company.

(b) Within three (3) calendar days after delivery of the Net Cash Schedule (the "***Response Date***"), the Company will have the right to dispute any part of the Net Cash Schedule by delivering a written notice to that effect to Parent (a "***Dispute Notice***"). Any Dispute Notice shall identify in reasonable detail the nature of any proposed revisions to the Net Cash Calculation.

(c) If on or prior to the Response Date, the Company (i) notifies Parent in writing that it has no objections to the Net Cash Calculation or (ii) fails to deliver a Dispute Notice as provided in Section 1.6(b) then the Net Cash Calculation as set forth in the Net Cash Schedule shall be deemed to have been finally determined

for purposes of this Agreement and to represent Parent Net Cash at the Anticipated Closing Date for purposes of this Agreement.

(d) If the Company delivers a Dispute Notice on or prior to the Response Date, then Representatives of both Parties shall promptly meet and attempt in good faith to resolve the disputed item(s) and negotiate an agreed-upon determination of Parent Net Cash, which agreed upon Parent Net Cash amount shall be deemed to have been finally determined for purposes of this Agreement and to represent the Parent Net Cash, at the Anticipated Closing Date for purposes of this Agreement.

(e) If Representatives of Parent and the Company are unable to negotiate an agreed-upon determination of Parent Net Cash, at the Anticipated Closing Date pursuant to Section 1.6(d) within three (3) calendar days after delivery of the Dispute Notice (or such other period as Parent and the Company may mutually agree upon), then Parent and the Company shall jointly select an independent auditor of recognized national standing (the "***Accounting Firm***") to resolve any remaining disagreements as to the Net Cash Calculation. Parent shall promptly deliver to the Accounting Firm the work papers and back-up materials used in preparing the Net Cash Schedule, and Parent and the Company shall use commercially reasonable efforts to cause the Accounting Firm to make its determination within 10 calendar days of accepting its selection. The Company and Parent shall be afforded the opportunity to present to the Accounting Firm any material related to the unresolved disputes and to discuss the issues with the Accounting Firm; *provided, however*, that no such presentation or discussion shall occur without the presence of a Representative of each of the Company and Parent. The determination of the Accounting Firm shall be limited to the disagreements submitted to the Accounting Firm. The determination of the amount of Parent Net Cash, made by the Accounting Firm shall be deemed to have been finally determined for purposes of this Agreement and to represent Parent Net Cash, at the Anticipated Closing Date for purposes of this Agreement, and the Parties shall delay the Closing until the resolution of the matters described in this Section 1.6(e). The fees and expenses of the Accounting Firm shall be allocated between Parent and Company in the same proportion that the disputed amount of Parent Net Cash that was unsuccessfully disputed by such Party (as finally determined by the Accounting Firm) bears to the total disputed amount of Parent Net Cash, (and for the avoidance of doubt the fees and expenses to be paid by a Party shall reduce Parent Net Cash). If this Section 1.6(e) applies as to the determination of Parent Net Cash, at the Anticipated Closing Date described in Section 1.6(a) upon resolution of the matter in accordance with this Section 1.6(e), the Parties shall not be required to determine Parent Net Cash, again even though the Closing Date may occur later than the Anticipated Closing Date, except that either Party may request a re-determination of Parent Net Cash if the Closing Date is more than five (5) Business Days after the Anticipated Closing Date.

1.7 **Closing of the Company's Transfer Books**. At the Effective Time: (a) all shares of Company Capital Stock outstanding immediately prior to the Effective Time shall be treated in accordance with Section 1.5(a), and all holders of certificates representing shares of Company Capital Stock that were outstanding immediately prior to the Effective Time shall cease to have any rights as stockholders of the Company; and (b) the stock transfer books of the Company shall be closed with respect to all shares of Company Capital Stock outstanding immediately prior to the Effective Time. No further transfer of any such shares of Company Capital Stock shall be made on such stock transfer books after the Effective Time. If, after the Effective Time, a valid certificate previously representing any shares of Company Capital Stock outstanding immediately prior to the Effective Time (a "***Company Stock Certificate***") is presented to the Exchange Agent or to the Surviving Corporation, such Company Stock Certificate shall be canceled and shall be exchanged as provided in Sections 1.5 and 1.8.

1.8 **Surrender of Certificates**.

(a) On or prior to the Closing Date, Parent and the Company shall agree upon and select a reputable bank, transfer agent or trust company to act as exchange agent in the Merger (the "***Exchange Agent***"). At the Effective Time, Parent shall deposit with the Exchange Agent: (i) certificates or evidence of book-entry shares representing the Parent Common Stock issuable pursuant to Section 1.5(a) and (ii) cash sufficient to make

payments in lieu of fractional shares in accordance with Section 1.5(c). The Parent Common Stock and cash amounts so deposited with the Exchange Agent, together with any dividends or distributions received by the Exchange Agent with respect to such shares, are referred to collectively as the "***Exchange Fund***."

(b) Promptly after the Effective Time, the Parties shall cause the Exchange Agent to mail to the Persons who were record holders of shares of Company Capital Stock that were converted into the right to receive the Merger Consideration: (i) a letter of transmittal in customary form and containing such provisions as Parent may reasonably specify (including a provision confirming that delivery of Company Stock Certificates shall be effected, and risk of loss and title to Company Stock Certificates shall pass, only upon proper delivery of such Company Stock Certificates to the Exchange Agent); and (ii) instructions for effecting the surrender of Company Stock Certificates in exchange for shares of Parent Common Stock. Upon surrender of a Company Stock Certificate to the Exchange Agent for exchange, together with a duly executed letter of transmittal and such other documents as may be reasonably required by the Exchange Agent or Parent: (A) the holder of such Company Stock Certificate shall be entitled to receive in exchange therefor a certificate or certificates or book-entry shares representing the Merger Consideration (in a number of whole shares of Parent Common Stock) that such holder has the right to receive pursuant to the provisions of Section 1.5(a) (and cash in lieu of any fractional share of Parent Common Stock pursuant to the provisions of Section 1.5(c)); and (B) the Company Stock Certificate so surrendered shall be canceled. Until surrendered as contemplated by this Section 1.8(b), each Company Stock Certificate shall be deemed, from and after the Effective Time, to represent only the right to receive a certificate or certificates or book-entry shares of Parent Common Stock representing the Merger Consideration (and cash in lieu of any fractional share of Parent Common Stock). If any Company Stock Certificate shall have been lost, stolen or destroyed, Parent may, in its discretion and as a condition precedent to the delivery of any shares of Parent Common Stock, require the owner of such lost, stolen or destroyed Company Stock Certificate to provide an applicable affidavit with respect to such Company Stock Certificate that includes an obligation of such owner to indemnify Parent against any claim suffered by Parent related to the lost, stolen or destroyed Company Stock Certificate as Parent may reasonably request. In the event of a transfer of ownership of a Company Stock Certificate that is not registered in the transfer records of the Company, payment of the Merger Consideration may be made to a Person other than the Person in whose name such Company Stock Certificate so surrendered is registered if such Company Stock Certificate shall be properly endorsed or otherwise be in proper form for transfer and the Person requesting such payment shall pay any transfer or other Taxes required by reason of the transfer or establish to the reasonable satisfaction of Parent that such Taxes have been paid or are not applicable. The Merger Consideration and any dividends or other distributions as are payable pursuant to Section 1.8(c) shall be deemed to have been in full satisfaction of all rights pertaining to Company Capital Stock formerly represented by such Company Stock Certificates.

(c) No dividends or other distributions declared or made with respect to Parent Common Stock with a record date on or after the Effective Time shall be paid to the holder of any unsurrendered Company Stock Certificate with respect to the shares of Parent Common Stock that such holder has the right to receive in the Merger until such holder surrenders such Company Stock Certificate or provides an affidavit of loss or destruction in lieu thereof in accordance with this Section 1.8 (at which time (or, if later, on the applicable payment date) such holder shall be entitled, subject to the effect of applicable abandoned property, escheat or similar Laws, to receive all such dividends and distributions, without interest).

(d) Any portion of the Exchange Fund that remains undistributed to holders of Company Stock Certificates as of the date that is one year after the Closing Date shall be delivered to Parent upon demand, and any holders of Company Stock Certificates who have not theretofore surrendered their Company Stock Certificates in accordance with this Section 1.8 shall thereafter look only to Parent for satisfaction of their claims for Parent Common Stock, cash in lieu of fractional shares of Parent Common Stock and any dividends or distributions with respect to shares of Parent Common Stock.

(e) Each of the Exchange Agent, Parent and the Surviving Corporation shall be entitled to deduct and withhold from any consideration deliverable pursuant to this Agreement to any holder of any Company

Stock Certificate such amounts as are required to be deducted or withheld from such consideration under the Code or under any other applicable Law. To the extent such amounts are so deducted or withheld, and remitted to the appropriate taxing authority, such amounts shall be treated for all purposes under this Agreement as having been paid to the Person to whom such amounts would otherwise have been paid.

(f) No party to this Agreement shall be liable to any holder of any Company Stock Certificate or to any other Person with respect to any shares of Parent Common Stock (or dividends or distributions with respect thereto) or for any cash amounts delivered to any public official pursuant to any applicable abandoned property Law, escheat Law or similar Law.

1.9 **Appraisal Rights**.

(a) Notwithstanding any provision of this Agreement to the contrary, shares of Company Capital Stock that are outstanding immediately prior to the Effective Time and which are held by stockholders who have exercised and perfected appraisal rights for such shares of Company Capital Stock in accordance with the DGCL or Chapter 13 of California Law, as applicable, (collectively, the "***Dissenting Shares***") shall not be converted into or represent the right to receive the Merger Consideration described in Section 1.5 attributable to such Dissenting Shares. Such stockholders shall be entitled to receive payment of the appraised value of such shares of Company Capital Stock held by them in accordance with the DGCL or California Law, as applicable, unless and until such stockholders fail to perfect or effectively withdraw or otherwise lose their appraisal rights under the DGCL or California Law. All Dissenting Shares held by stockholders who shall have failed to perfect or shall have effectively withdrawn or lost their right to appraisal of such shares of Company Capital Stock under the DGCL or California Law (whether occurring before, at or after the Effective Time) shall thereupon be deemed to be converted into and to have become exchangeable for, as of the Effective Time, the right to receive the Merger Consideration, without interest, attributable to such Dissenting Shares upon their surrender in the manner provided in Sections 1.5 and 1.8.

(b) The Company shall give Parent prompt written notice of any demands by dissenting stockholders received by the Company, withdrawals of such demands and any other instruments served on the Company and any material correspondence received by the Company in connection with such demands, and the Company shall have the right to direct all negotiations and proceedings with respect to such demands; *provided* that Parent shall have the right to participate in such negotiations and proceedings. The Company shall not, except with Parent's prior written consent, not to be unreasonably withheld, delayed or conditioned, make any payment with respect to, or settle or offer to settle, any such demands, or approve any withdrawal of any such demands or agree to do any of the foregoing.

1.10 **Further Action**. If, at any time after the Effective Time, any further action is determined by the Surviving Corporation to be necessary or desirable to carry out the purposes of this Agreement or to vest the Surviving Corporation with full right, title and possession of and to all rights and property of the Company, then the officers and directors of the Surviving Corporation shall be fully authorized, and shall use their and its commercially reasonable efforts (in the name of the Company, in the name of Merger Sub, in the name of the Surviving Corporation and otherwise) to take such action.

1.11 **Withholding**. The Parties and the Exchange Agent shall be entitled to deduct and withhold from the consideration otherwise payable pursuant to this Agreement to any holder of Company Capital Stock or any other Person such amounts as such Party or the Exchange Agent reasonably determines it is required to deduct and withhold under the Code or any other Law with respect to the making of such payment. To the extent that amounts are so withheld and paid to the appropriate Governmental Body, such withheld amounts shall be treated for all purposes of this Agreement as having been paid to the Person in respect of whom such deduction and withholding was made.

Section 2. REPRESENTATIONS AND WARRANTIES OF THE COMPANY

Subject to Section 10.13(h), except as set forth in the disclosure schedule delivered by the Company to Parent (the "***Company Disclosure Schedule***"), the Company represents and warrants to Parent and Merger Sub as follows:

2.1 **Due Organization; Subsidiaries**.

(a) The Company is a corporation or other legal entity duly incorporated, validly existing and in good standing under the Laws of Delaware and has all necessary corporate power and authority: (i) to conduct its business in the manner in which its business is currently being conducted; (ii) to own or lease and use its property and assets in the manner in which its property and assets are currently owned or leased and used; and (iii) to perform its obligations under all Contracts by which it is bound, except where the failure to have such power or authority would not reasonably be expected to prevent or materially delay the ability of the Company to consummate the Contemplated Transactions.

(b) The Company is duly licensed and qualified to do business, and is in good standing (to the extent applicable in such jurisdiction), under the Laws of all jurisdictions where the nature of its business requires such licensing or qualification other than in jurisdictions where the failure to be so qualified individually or in the aggregate would not be reasonably expected to have a Company Material Adverse Effect.

(c) The Company has no Subsidiaries and the Company does not own any capital stock of, or any equity, ownership or profit sharing interest of any nature in, or controls directly or indirectly, any other Entity.

(d) The Company is not, or has not otherwise been, directly or indirectly, a party to, member of or participant in any partnership, joint venture or similar business entity. The Company has not agreed, or is not obligated to make, or is not bound by any Contract under which it may become obligated to make, any future investment in or capital contribution to any other Entity. The Company has not, at any time, been a general partner of, or has otherwise been liable for any of the debts or other obligations of, any general partnership, limited partnership or other Entity.

2.2 **Organizational Documents**. The Company has made available to Parent accurate and complete copies of the Organizational Documents of the Company in effect as of the date of this Agreement. The Company is not in material breach or violation of its respective Organizational Documents.

2.3 **Authority; Binding Nature of Agreement.** The Company has all necessary corporate power and authority to enter into and to perform its obligations under this Agreement and, subject to receipt of the Required Company Stockholder Vote, to perform its obligations hereunder and consummate the Contemplated Transactions. The Company Board (at meetings duly called and held or by a written consent in lieu of a meeting) has (i) determined that the Contemplated Transactions are fair to, advisable and in the best interests of the Company and its stockholders; (ii) authorized, approved and declared advisable this Agreement and the Contemplated Transactions; and (iii) determined to recommend, upon the terms and subject to the conditions set forth in this Agreement, that the stockholders of the Company vote to approve this Agreement and the Contemplated Transactions.

This Agreement has been duly executed and delivered by the Company and assuming the due authorization, execution and delivery by Parent and Merger Sub, constitutes the legal, valid and binding obligation of the Company, enforceable against the Company in accordance with its terms, subject to the Enforceability Exceptions. Prior to the execution of the Company Stockholder Support Agreements, the Company Board approved the Company Stockholder Support Agreements and the transactions contemplated thereby.

2.4 **Vote Required.** The affirmative vote (or written consent) of each of (i) the holders of a majority of the outstanding shares of the Company Common Stock and (ii) the holders of a majority of the outstanding shares of the Company Preferred Stock voting as a single class on an as-converted to Company Common Stock

basis (collectively, the "***Required Company Stockholder Vote***"), is the only vote (or written consent) of the holders of any class or series of Company Capital Stock necessary to adopt and approve this Agreement and approve the Contemplated Transactions.

2.5 **Non-Contravention; Consents.** Subject to obtaining the Required Company Stockholder Vote, the filing of the Certificate of Merger required by the DGCL, neither (x) the execution, delivery or performance of this Agreement by the Company, nor (y) the consummation of the Contemplated Transactions, will directly or indirectly (with or without notice or lapse of time):

(a) contravene, conflict with or result in a violation of any of the provisions of the Company's Organizational Documents;

(b) contravene, conflict with or result in a violation of, or give any Governmental Body the right to challenge the Contemplated Transactions or to exercise any remedy or obtain any relief under, any Law or any order, writ, injunction, judgment or decree to which the Company, or any of the assets owned or used by the Company, is subject, except as would not reasonably be expected to be material to the Company or its business;

(c) contravene, conflict with or result in a violation of any of the terms or requirements of, or give any Governmental Body the right to revoke, withdraw, suspend, cancel, terminate or modify, any Governmental Authorization that is held by the Company, except as would not reasonably be expected to be material to the Company or its business;

(d) contravene, conflict with or result in a violation or breach of, or result in a default under, any provision of any Company Material Contract, or give any Person the right to: (i) declare a default or exercise any remedy under any Company Material Contract; (ii) any material payment, rebate, chargeback, penalty or change in delivery schedule under any Company Material Contract; (iii) accelerate the maturity or performance of any Company Material Contract; or (iv) cancel, terminate or modify any term of any Company Material Contract, except in the case of any non-material breach, default, penalty or modification; or

(e) result in the imposition or creation of any Encumbrance upon or with respect to any material asset owned or used by the Company (except for Permitted Encumbrances).

Except for (i) the filing of the Certificate of Merger with the Secretary of State of the State of Delaware pursuant to the DGCL, and (ii) such consents, waivers, approvals, orders, authorizations, registrations, declarations and filings as may be required under applicable federal and state securities Laws, the Company is not or will not be required to make any filing with or give any notice to, or to obtain any Consent from, any Governmental Body in connection with (x) the execution, delivery or performance of this Agreement, or (y) the consummation of the Contemplated Transactions, which if individually or in the aggregate were not given or obtained, would reasonably be expected to prevent or materially delay the ability of the Company to consummate the Contemplated Transactions. The Company Board has taken and will take all actions necessary to ensure that the restrictions applicable to business combinations contained in Section 203 of the DGCL are, and will be, inapplicable to the execution, delivery and performance of this Agreement, the Company Stockholder Support Agreements, the Company Lock-Up Agreements and to the consummation of the Contemplated Transactions. No other state takeover statute or similar Law applies or purports to apply to the Merger, this Agreement, the Company Stockholder Support Agreements, the Company Lock-Up Agreements or any of the Contemplated Transactions.

2.6 **Capitalization.**

(a) The authorized Company Capital Stock as of the date of this Agreement consists of (i) 28,858,687 shares of Company Common Stock, par value $0.0001 per share, of which 10,000,000 shares have been issued and are outstanding as of the date of this Agreement, and (ii) 15,072,819 shares of preferred stock,

par value $0.0001 per share (the "***Company Preferred Stock***"), of which 15,072,814 have been issued and are outstanding as of the date of this Agreement, consisting of 15,072,814 shares of Series A Preferred Stock. The Company does not hold any shares of its capital stock in its treasury. Section 2.6(a) of the Company Disclosure Schedule lists, as of the date of this Agreement each record holder of issued and outstanding Company Capital Stock and the number and type of shares of Company Capital Stock held by such holder.

(b) All of the outstanding shares of Company Common Stock and Company Preferred Stock have been duly authorized and validly issued, and are fully paid and nonassessable. Except as set forth in the Investor Agreements, none of the outstanding shares of Company Capital Stock is entitled or subject to any preemptive right, right of participation, right of maintenance or any similar right and none of the outstanding shares of Company Capital Stock is subject to any right of first refusal in favor of the Company. Except as contemplated herein and in the Investor Agreements, there is no Company Contract relating to the voting or registration of, or restricting any Person from purchasing, selling, pledging or otherwise disposing of (or granting any option or similar right with respect to), any shares of Company Capital Stock. The Company is not under any obligation, nor is it bound by any Contract pursuant to which it may become obligated, to repurchase, redeem or otherwise acquire any outstanding shares of Company Capital Stock or other securities. Section 2.6(b) of the Company Disclosure Schedule accurately and completely lists all repurchase or forfeiture rights held by the Company with respect to shares of Company Capital Stock (including shares issued pursuant to the exercise of stock options), if any, and specifies which of those repurchase rights are currently exercisable and whether the holder of such shares of Company Capital Stock timely filed an election with the relevant Governmental Bodies under Section 83(b) of the Code with respect to such shares. Each share of Company Preferred Stock is convertible into one share of Company Common Stock.

(c) Except for the 2018 Equity Incentive Plan, as described in Section 2.6(c) of the Company Disclosure Schedule, (the "***Company Plan***"), the Company does not have any stock option plan or any other plan, program, agreement or arrangement providing for any equity-based compensation for any Person. As of the date of this Agreement, the Company has reserved 2,785,868 shares of Company Common Stock for issuance under the Company Plan, of which no shares have been issued and are currently outstanding, 2,725,000 shares have been reserved for issuance upon exercise of Company Options previously granted and currently outstanding under the Company Plan, and 60,868 shares of Company Common Stock remain available for future issuance of awards pursuant to the Company Plan. Section 2.6(c) of the Company Disclosure Schedule sets forth the following information with respect to each Company Option outstanding as of the date of this Agreement: (i) the name of the optionee; (ii) the number of shares of Company Common Stock subject to such Company Option at the time of grant; (iii) the number of shares of Company Common Stock subject to such Company Option as of the date of this Agreement; (iv) the exercise price of such Company Option; (v) the date on which such Company Option was granted; (vi) the applicable vesting schedule, including the number of vested and unvested shares as of the date of this Agreement and any acceleration provisions; (vii) the date on which such Company Option expires; and (viii) whether such Company Option is intended to constitute an "incentive stock option" (as defined in the Code) or a non-qualified stock option. The Company has made available to Parent an accurate and complete copy of the Company Plan and the form of the option agreements evidencing outstanding options granted thereunder. No vesting of Company Options will accelerate in connection with the closing of the Contemplated Transactions.

(d) Except for (A) the Company Options set forth on Section 2.6(c) of the Company Disclosure Schedule and (B) in connection with the Pre-Closing Financing, there is no: (i) outstanding subscription, option, call, warrant or right (whether or not currently exercisable) to acquire any shares of the capital stock or other securities of the Company; (ii) outstanding security, instrument or obligation that is or may become convertible into or exchangeable for any shares of the capital stock or other securities of the Company; or (iii) condition or circumstance that could be reasonably likely to give rise to or provide a basis for the assertion of a claim by any Person to the effect that such Person is entitled to acquire or receive any shares of capital stock or other securities of the Company. There are no outstanding or authorized stock appreciation, phantom stock, profit participation or other similar rights with respect to the Company.

(e) All outstanding shares of Company Common Stock, Company Preferred Stock, Company Options, Company Warrants and other securities of the Company have been issued and granted in material compliance with (i) all applicable securities Laws and other applicable Law, and (ii) all requirements set forth in applicable Contracts.

2.7 **Financial Statements**.

(a) Concurrently with the execution hereof, the Company has provided to Parent true and complete copies of (i) the Company's audited consolidated balance sheets at December 31, 2018 and 2017, together with related audited consolidated statements of income, stockholders' equity and cash flows, and notes thereto, of the Company for the fiscal years then ended, (ii) the Company's unaudited consolidated balance sheet at December 31, 2019, together with related unaudited consolidated statements of income, stockholders' equity and cash flows of the Company for the fiscal year then ended, and (iii) the Company Unaudited Interim Balance Sheet, together with the unaudited consolidated statements of income, stockholders' equity and cash flows of the Company for the period reflected in the Company Unaudited Interim Balance Sheet (collectively, the "***Company Financials***"). The Company Financials were prepared in accordance with GAAP (except as may be indicated in the notes to such financial statements and except that the unaudited financial statements may not contain footnotes and are subject to normal and recurring year-end adjustments, none of which are material) and fairly present, in all material respects, the financial position and operating results of the Company as of the dates and for the periods indicated therein.

(b) The Company maintains accurate books and records reflecting its assets and liabilities and maintains a system of internal accounting controls designed to provide reasonable assurance that: (i) transactions are executed in accordance with management's general or specific authorizations; (ii) transactions are recorded as necessary to permit preparation of the financial statements of the Company to maintain accountability of the Company's assets; (iii) access to the Company's assets is permitted only in accordance with management's general or specific authorization; (iv) the recorded accountability for the Company's assets is compared with the existing assets at regular intervals and appropriate action is taken with respect to any differences; and (v) accounts, notes and other receivables and inventory are recorded accurately, and proper and adequate procedures are implemented to effect the collection thereof on a current and timely basis. The Company maintains internal control over financial reporting that provides reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes.

(c) Section 2.7(c) of the Company Disclosure Schedule lists, and the Company has delivered to Parent accurate and complete copies of the documentation creating or governing, all securitization transactions and "off-balance sheet arrangements" (as defined in Item 303(c) of Regulation S-K under the Exchange Act) effected by the Company since May 3, 2017, if any.

(d) Since May 3, 2017, there have been no formal internal investigations regarding financial reporting or accounting policies and practices discussed with, reviewed by or initiated at the direction of the Chief Executive Officer, Chief Financial Officer or General Counsel of the Company, the Company Board or any committee thereof. Since May 3, 2017, neither the Company nor its independent auditors have identified (i) any significant deficiency or material weakness in the design or operation of the system of internal accounting controls utilized by the Company, (ii) any fraud, whether or not material, that involves the Company, the Company's management or other employees who have a role in the preparation of financial statements or the internal accounting controls utilized by the Company or (iii) any claim or allegation regarding any of the foregoing.

2.8 **Absence of Changes**. Except as set forth on Section 2.8 of the Company Disclosure Schedule, between the date of the Company Unaudited Interim Balance Sheet and the date of this Agreement, the Company has conducted its business only in the Ordinary Course of Business (except for the execution and performance of this Agreement and the discussions, negotiations and transactions related thereto) and there has not been any

(a) Company Material Adverse Effect or (b) action, event or occurrence that would have required the consent of Parent pursuant to Section 4.2(b) had such action, event or occurrence taken place after the execution and delivery of this Agreement.

2.9 **Absence of Undisclosed Liabilities**. As of the date hereof, the Company has no liability, indebtedness, obligation or expense of any kind, whether accrued, absolute, contingent, matured or unmatured (whether or not required to be reflected in the financial statements in accordance with GAAP) (each a "***Liability***"), individually or in the aggregate, of a type required to be recorded or reflected on a balance sheet or disclosed in the footnotes thereto under GAAP except for: (a) Liabilities disclosed, reflected or reserved against in the Company Unaudited Interim Balance Sheet; (b) Liabilities that have been incurred by the Company since the date of the Company Unaudited Interim Balance Sheet in the Ordinary Course of Business; (c) executory Liabilities for performance of obligations of the Company under Company Material Contracts, excluding any Liability arising out of or in connection with the breach of such Company Material Contracts; (d) Liabilities incurred in connection with the Contemplated Transactions; (e) Liabilities which would not, individually or in the aggregate, reasonably be expected to be material to the Company; and (f) Liabilities described in Section 2.9(f) of the Company Disclosure Schedule.

2.10 **Title to Assets**. The Company owns, and has good and valid title to, or, in the case of leased properties and assets, valid leasehold interests in, all tangible properties or tangible assets and equipment used or held for use in its business or operations or purported to be owned by it, including: (a) all tangible assets reflected on the Company Unaudited Interim Balance Sheet; and (b) all other tangible assets reflected in the books and records of the Company as being owned by the Company. All of such assets are owned or, in the case of leased assets, leased by the Company free and clear of any Encumbrances, other than Permitted Encumbrances.

2.11 **Real Property; Leasehold**. The Company does not own and has never owned any real property. The Company has made available to Parent (a) an accurate and complete list of all real properties with respect to which the Company directly or indirectly holds a valid leasehold interest as well as any other real estate that is in the possession of or leased by the Company, and (b) copies of all leases under which any such real property is possessed (the "***Company Real Estate Leases***"), each of which is in full force and effect, with no existing material default thereunder. The Company's use and operation of each such leased property conforms to all applicable Laws in all material respects, and the Company has exclusive possession of each such leased property and has not granted any occupancy rights to tenants or licensees with respect to such leased property. In addition, each such leased property is free and clear of all Encumbrances other than Permitted Encumbrances.

2.12 **Intellectual Property**.

(a) Section 2.12(a) of the Company Disclosure Schedule identifies (i) the name of the applicant/registrant, (ii) the jurisdiction of application/registration, (iii) the application or registration number and (iv) any other co-owners, for each item of material Registered IP owned in whole or in part by the Company. To the Knowledge of the Company, each of the patents and patent applications included in the material Registered IP properly identifies by name each and every inventor of the inventions claimed therein as determined in accordance with applicable Laws of the United States. As of the date of this Agreement, no interference, opposition, reissue, reexamination or other proceeding of any nature (other than initial examination proceedings) is pending or, to the Knowledge of the Company, threatened in writing, in which the scope, validity, enforceability or ownership of any Registered IP listed on Section 2.12(a) of the Company Disclosure Schedule is being or has been contested or challenged.

(b) The Company owns all right, title and interest in and to all material Company IP (other than as disclosed on Section 2.12(a) of the Company Disclosure Schedule), free and clear of all Encumbrances other than Permitted Encumbrances. To the Knowledge of the Company, each Company Associate involved in the creation or development of any material Company IP, pursuant to such Company Associate's activities on behalf of the Company, has signed a written agreement containing an assignment of such Company Associate's rights in such Company IP to the Company and confidentiality provisions protecting the Company IP.

(c) To the Knowledge of the Company, no funding, facilities or personnel of any Governmental Body or any university, college, research institute or other educational or academic institution has been used, in whole or in part, to create any technical data, computer software, or Company IP, except any such funding or use of facilities or personnel that does not result in such Governmental Body or institution obtaining ownership rights to such Company IP or the right to receive royalties for the practice of such Company IP, except for such ownership rights or rights to receive royalties for the practice of such Company IP as disclosed on Section 2.12(c) of the Company Disclosure Schedule.

(d) Section 2.12(d) of the Company Disclosure Schedule sets forth each license agreement pursuant to which the Company (i) is granted a license under any material Intellectual Property Right owned by any third party that is used by the Company in its business as currently conducted (each a "***Company In-bound License***") or (ii) grants to any third party a license under any material Company IP or material Intellectual Property Right licensed to the Company under a Company In-bound License (each a "***Company Out-bound License***") (*provided*, that, Company In-bound Licenses shall not include material transfer agreements, clinical trial agreements, services agreements, non-disclosure agreements, commercially available Software-as-a-Service offerings, off-the-shelf software licenses or generally available patent license agreements entered into in the Ordinary Course of Business; and Company Out-bound Licenses shall not include material transfer agreements, clinical trial agreements, services agreements, non-disclosure agreements, or non-exclusive outbound licenses entered into in the Ordinary Course of Business).

(e) To the Knowledge of the Company: (i) the operation of the businesses of the Company as currently conducted does not infringe any valid and enforceable Registered IP or misappropriate or otherwise violate any other Intellectual Property Right owned by any other Person; and (ii) no other Person is infringing, misappropriating or otherwise violating any Company IP or any Intellectual Property Rights exclusively licensed to the Company. As of the date of this Agreement, no Legal Proceeding is pending (or, to the Knowledge of the Company, is threatened in writing) (A) against the Company alleging that the operation of the businesses of the Company infringes or constitutes the misappropriation or other violation of any Intellectual Property Rights of another Person or (B) by the Company alleging that another Person has infringed, misappropriated or otherwise violated any of the Company IP or any Intellectual Property Rights exclusively licensed to the Company. Since May 3, 2017, the Company has not received any written notice or other written communication alleging that the operation of the business of the Company infringes or constitutes the misappropriation or other violation of any Intellectual Property Right of another Person.

(f) None of the Company IP or, to the Knowledge of the Company, any material Intellectual Property Rights exclusively licensed to the Company is subject to any pending or outstanding injunction, directive, order, judgment or other disposition of dispute that adversely and materially restricts the use, transfer, registration or licensing by the Company of any such Company IP or material Intellectual Property Rights exclusively licensed to the Company.

(g) To the Knowledge of the Company, the Company, and the operation of the Company's business are in substantial compliance with all Laws pertaining to data privacy and data security of any personally identifiable information and sensitive business information (collectively, "***Sensitive Data***"), except to the extent that such noncompliance has not and would not reasonably be expected to have a Company Material Adverse Effect. To the Knowledge of the Company, since May 3, 2017, there have been (i) no material losses or thefts of data or security breaches relating to Sensitive Data used in the business of the Company, (ii) no violations of any security policy of the Company regarding any such Sensitive Data, (iii) no unauthorized access or unauthorized use of any Sensitive Data used in the business of the Company and (iv) no unintended or improper disclosure of any personally identifiable information in the possession, custody or control of the Company, or a contractor or agent acting on behalf of the Company, in each case of (i) through (iv), except as would not reasonably be expected to, individually or in the aggregate, have a Company Material Adverse Effect.

2.13 **Agreements, Contracts and Commitments**.

(a) Section 2.13(a) of the Company Disclosure Schedule lists the following Company Contracts in effect as of the date of this Agreement other than any Company Benefit Plans (each, a "***Company Material Contract***" and collectively, the "***Company Material Contracts***"):

(i) each Company Contract relating to any agreement of indemnification or guaranty not entered into in the Ordinary Course of Business;

(ii) each Company Contract containing (A) any covenant limiting the freedom of the Company, or the Surviving Corporation to engage in any line of business or compete with any Person, (B) any most-favored pricing arrangement, (C) any exclusivity provision, or (D) any non-solicitation provision;

(iii) each Company Contract relating to capital expenditures and requiring payments after the date of this Agreement in excess of $50,000 pursuant to its express terms and not cancelable without penalty;

(iv) each Company Contract relating to the disposition or acquisition of material assets or any ownership interest in any Entity;

(v) each Company Contract relating to any mortgages, indentures, loans, notes or credit agreements, security agreements or other agreements or instruments relating to the borrowing of money or extension of credit or creating any material Encumbrances with respect to any assets of the Company or any loans or debt obligations with officers or directors of the Company;

(vi) each Company Contract requiring payment by or to the Company after the date of this Agreement in excess of $50,000 pursuant to its express terms relating to: (A) any distribution agreement (identifying any that contain exclusivity provisions); (B) any agreement involving provision of services or products with respect to any pre-clinical or clinical development activities of the Company; (C) any dealer, distributor, joint marketing, alliance, joint venture, cooperation, development or other agreement currently in force under which the Company has continuing obligations to develop or market any product, technology or service, or any agreement pursuant to which the Company has continuing obligations to develop any Intellectual Property Rights that will not be owned, in whole or in part, by the Company; or (D) any Contract to license any third party to manufacture or produce any product, service or technology of the Company or any Contract to sell, distribute or commercialize any products or service of the Company, in each case, except for Company Contracts entered into in the Ordinary Course of Business;

(vii) each Company Contract with any Person, including any financial advisor, broker, finder, investment banker or other Person, providing advisory services to the Company in connection with the Contemplated Transactions;

(viii) each Company Real Estate Lease;

(ix) each Company Contract with any Governmental Body;

(x) each Company Out-bound License and Company In-bound License;

(xi) each Company Contract containing any royalty, dividend or similar arrangement based on the revenues or profits of the Company; or

(xii) any other Company Contract that is not terminable at will (with no penalty or payment) by the Company, as applicable, and (A) which involves payment or receipt by the Company after the date of this Agreement under any such agreement, contract or commitment of more than $50,000 in the aggregate, or obligations after the date of this Agreement in excess of $50,000 in the aggregate, or (B) that is material to the business or operations of the Company, taken as a whole.

(b) The Company has delivered or made available to Parent accurate and complete copies of all Company Material Contracts, including all amendments thereto. Except as set forth in Section 2.13(b) of the Company Disclosure Schedule, there are no Company Material Contracts that are not in written form. The Company has not, nor to the Company's Knowledge, as of the date of this Agreement has any other party to a Company Material Contract, breached, violated or defaulted under, or received notice that it breached, violated or defaulted under, any of the terms or conditions of or Laws applicable to any Company Material Contract in such manner as would permit any other party to cancel or terminate any such Company Material Contract, or would permit any other party to seek damages or pursue other legal remedies which would reasonably be expected to be material to the Company or its business. As to the Company, as of the date of this Agreement, each Company Material Contract is valid, binding, enforceable and in full force and effect, subject to the Enforceability Exceptions. As of the date of this Agreement, no Person is renegotiating, or has a right pursuant to the terms of any Company Material Contract to change, any material amount paid or payable to the Company under any Company Material Contract or any other material term or provision of any Company Material Contract.

2.14 **Compliance; Permits; Restrictions.**

(a) The Company, since May 3, 2017 has been, in compliance in all material respects with all applicable Laws, including the Federal Food, Drug, and Cosmetic Act ("***FDCA***"), the Food and Drug Administration ("***FDA***") regulations adopted thereunder, the Public Health Service Act and any other similar Law administered or promulgated by the FDA or other comparable Governmental Body responsible for regulation of the development, clinical testing, manufacturing, sale, marketing, distribution and importation or exportation of drug and biopharmaceutical products (each, a "***Drug Regulatory Agency***"), except for any noncompliance, either individually or in the aggregate, which would not be material to the Company. No investigation, claim, suit, proceeding, audit or other action by any Governmental Body is pending or, to the Knowledge of the Company, threatened against the Company. There is no agreement, judgment, injunction, order or decree binding upon the Company which (i) has or would reasonably be expected to have the effect of prohibiting or materially impairing any business practice of the Company, any acquisition of material property by the Company or the conduct of business by the Company as currently conducted, (ii) is reasonably likely to have an adverse effect on the Company's ability to comply with or perform any covenant or obligation under this Agreement, or (iii) is reasonably likely to have the effect of preventing, delaying, making illegal or otherwise interfering with the Contemplated Transactions.

(b) The Company holds all required Governmental Authorizations which are material to the operation of the business of the Company as currently conducted (the "***Company Permits***"). The Company holds all rights, title, and interest in and to all Company Permits free and clear of any encumbrance. Section 2.14(b) of the Company Disclosure Schedule identifies each Company Permit, if any. The Company is in material compliance with the terms of the Company Permits. No Legal Proceeding is pending or, to the Knowledge of the Company, threatened, which seeks to revoke, limit, suspend, or materially modify any Company Permit. The rights and benefits of each Company Permit will be available to the Surviving Corporation or its Subsidiaries, as applicable, immediately after the Effective Time on terms substantially identical to those enjoyed by the Company as of the date of this Agreement and immediately prior to the Effective Time.

(c) Neither the Company nor any of its owners, officers, directors, or employees, nor to the Company's Knowledge any of its consultants, agents, or representatives acting on behalf of the Company is currently debarred or suspended from doing business with any Governmental Body, or received any written notice of debarment or suspension, or otherwise ineligible to do business with any Governmental Body. To the Company's Knowledge, there are no circumstances that would be reasonably expected to warrant the institution of debarment or suspension proceedings against the Company or any of its owners, officers, directors, employees, consultants, agents, or representatives.

(d) There are no proceedings pending or, to the Knowledge of the Company, threatened with respect to an alleged material violation by the Company of the FDCA, FDA regulations adopted thereunder, the

Public Health Service Act or any other similar Law administered or promulgated by any Drug Regulatory Agency.

(e) To the Knowledge of the Company, all clinical, pre-clinical and other studies and tests conducted by or on behalf of, or sponsored by, the Company, or in which the Company or their respective current products or product candidates have participated, were and, if still pending, are being conducted in all material respects in accordance with standard medical and scientific research procedures and in compliance in all material respects with the applicable regulations of any applicable Drug Regulatory Agency and other applicable Law, including 21 C.F.R. Parts 50, 54, 56, 58 and 312. No preclinical or clinical trial conducted by or on behalf of the Company has been terminated or suspended, or been subject to any stock recovery, prior to completion for safety or non-compliance reasons. Since May 3, 2017, the Company has not received any notices, correspondence, or other communications from any Drug Regulatory Agency requiring, or to the Knowledge of the Company threatening to initiate, the termination or suspension of any clinical studies conducted by or on behalf of, or sponsored by, the Company in which the Company or their respective current products or product candidates have participated.

(f) The Company is not the subject of any pending or, to the Knowledge of the Company, threatened investigation in respect of its business or products by the FDA pursuant to its "Fraud, Untrue Statements of Material Facts, Bribery, and Illegal Gratuities" Final Policy set forth in 56 Fed. Reg. 46191 (September 10, 1991) and any amendments thereto. To the Knowledge of the Company, the Company has not committed any acts, made any statement, or failed to make any statement, in each case in respect of its business or products that would violate the FDA's "Fraud, Untrue Statements of Material Facts, Bribery, and Illegal Gratuities" Final Policy, and any amendments thereto. The Company or any of its respective officers, employees or agents have not been convicted of any crime or engaged in any conduct that could result in a debarment or exclusion (i) under 21 U.S.C. Section 335a or (ii) any similar applicable Law. No debarment or exclusionary claims, actions, proceedings or investigations in respect of their business or products are pending or, to the Knowledge of the Company, threatened against the Company, or any of their respective officers, employees or agents.

(g) The Company has complied in all material respects with all applicable Laws relating to patient, medical or individual health information, including the Health Insurance Portability and Accountability Act of 1996 and its implementing regulations promulgated thereunder, all as amended from time to time (collectively "***HIPAA***"), including the standards for the privacy of Individually Identifiable Health Information at 45 C.F.R. Parts 160 and 164, Subparts A and E, the standards for the protection of Electronic Protected Health Information set forth at 45 C.F.R. Part 160 and 45 C.F.R. Part 164, Subpart A and Subpart C, the standards for transactions and code sets used in electronic transactions at 45 C.F.R. Part 160, Subpart A and Part 162, and the standards for Breach Notification for Unsecured Protected Health Information at 45 C.F.R. Part 164, Subpart D, all as amended from time to time. To the extent, the Company has entered into, where required, Business Associate (as defined in HIPAA) agreements ("***Business Associate Agreements***") the Company have complied in all material respects with the terms of such agreements. The Company has not received written notice from the Office for Civil Rights for the U.S. Department of Health and Human Services or any other Governmental Body of any allegation regarding its failure to comply with HIPAA or any other state law or regulation applicable to the protection of individually identifiable health information or personally identifiable information. No successful "Security Incident," "Breach of Unsecured Protected Health Information" or breach of personally identifiable information under applicable state or federal laws have occurred with respect to information maintained or transmitted to the Company, to the Knowledge of the Company, an agent or third party subject to a Business Associate Agreement with the Company. The Company is currently submitting, receiving and handling or is capable of submitting receiving and handling transactions in accordance with the Standard Transaction Rule. All capitalized terms in this Section 2.14(g) not otherwise defined in this Agreement shall have the meanings set forth under HIPAA.

2.15 **Legal Proceedings; Orders**.

(a) As of the date of this Agreement, there is no pending Legal Proceeding and, to the Knowledge of the Company, no Person has threatened in writing to commence any Legal Proceeding: (i) that involves (A) the Company, (B) any Company Associate (in his or her capacity as such) or (C) any of the material assets owned or used by the Company; or (ii) that challenges, or that may have the effect of preventing, delaying, making illegal or otherwise interfering with, the Contemplated Transactions.

(b) Except as set forth in Section 2.15(b) of the Company Disclosure Schedule, since May 3, 2017, no Legal Proceeding has been pending against the Company that resulted in material liability to the Company.

(c) There is no order, writ, injunction, judgment or decree to which the Company, or any of the material assets owned or used by the Company, is subject. To the Knowledge of the Company, no officer of the Company is subject to any order, writ, injunction, judgment or decree that prohibits such officer or employee from engaging in or continuing any conduct, activity or practice relating to the business of the Company to any material assets owned or used by the Company.

2.16 **Tax Matters.**

(a) The Company has timely filed all income Tax Returns and other material Tax Returns that they were required to file under applicable Law. All such Tax Returns are correct and complete in all material respects and have been prepared in compliance with all applicable Law. No written claim has ever been made by any Governmental Body in any jurisdiction where the Company does not file a particular Tax Return or pay a particular Tax that the Company is required to file such Tax Return or pay such Tax in that jurisdiction.

(b) All income and other material Taxes due and owing by the Company on or before the date hereof (whether or not shown on any Tax Return) have been fully paid. The unpaid Taxes of the Company did not, as of the date of the Company Unaudited Interim Balance Sheet, materially exceed the reserve for Tax liability (excluding any reserve for deferred Taxes established to reflect timing differences between book and Tax items) set forth on the face of the Company Unaudited Interim Balance Sheet. Since the date of the Company Unaudited Interim Balance Sheet, the Company has not incurred any material Liability for Taxes outside the Ordinary Course of Business.

(c) All Taxes that the Company is or was required by Law to withhold or collect have been duly and timely withheld or collected in all material respects on behalf of its respective employees, independent contractors, stockholders, lenders, customers or other third parties and, have been timely paid to the proper Governmental Body or other Person or properly set aside in accounts for this purpose.

(d) There are no Encumbrances for material Taxes (other than Taxes not yet due and payable) upon any of the assets of the Company.

(e) No deficiencies for income or other material Taxes with respect to the Company have been claimed, proposed or assessed by any Governmental Body in writing. There are no pending or ongoing, and to the Knowledge of the Company, threatened audits, assessments or other actions for or relating to any liability in respect of a material amount of Taxes of the Company. Neither the Company nor any of its predecessors has waived any statute of limitations in respect of any income or other material Taxes or agreed to any extension of time with respect to any income or other material Tax assessment or deficiency.

(f) The Company has not been a United States real property holding corporation within the meaning of Section 897(c)(2) of the Code during the applicable period specified in Section 897(c)(1)(A)(ii) of the Code.

(g) The Company is not a party to any Tax allocation agreement, Tax sharing agreement, Tax indemnity agreement, or similar agreement or arrangement, other than customary commercial contracts entered into in the Ordinary Course of Business the principal subject matter of which is not Taxes.

(h) The Company will not be required to include any material item of income in, or exclude any material item of deduction from, taxable income for any Tax period (or portion thereof) ending after the Closing Date as a result of any: (i) change in method of accounting for Tax purposes made on or prior to the Closing Date; (ii) use of an improper method of accounting for a Tax period ending on or prior to the Closing Date; (iii) "closing agreement" as described in Section 7121 of the Code (or any similar provision of state, local or foreign Law) executed on or prior to the Closing Date; (iv) intercompany transaction or excess loss account described in Treasury Regulations under Section 1502 of the Code (or any similar provision of state, local or foreign Law) entered into on or prior to the Closing Date; (v) installment sale or open transaction disposition made on or prior to the Closing Date; (vi) prepaid amount received or deferred revenue accrued on or prior to the Closing Date; (vii) application of Section 367(d) of the Code to any transfer of intangible property on or prior to the Closing Date; (viii) application of Sections 951 or 951A of the Code (or any similar provision of state, local or foreign Law) to any income received or accrued on or prior to the Closing Date; or (ix) election under Section 108(i) of the Code (or any similar provision of state, local or foreign Law) made on or prior to the Closing Date. The Company has not made any election under Section 965(h) of the Code.

(i) The Company has not been (i) a member of a consolidated, combined or unitary Tax group (other than such a group the common parent of which is the Company) or (ii) a party to any joint venture, partnership, or other arrangement that is treated as a partnership for U.S. federal income Tax purposes. The Company does not have any Liability for any material Taxes of any other Person under Treasury Regulations Section 1.1502-6 (or any similar provision of state, local, or foreign Law), or as a transferee or successor.

(j) The Company (i) is not a "controlled foreign corporation" as defined in Section 957 of the Code; (ii) is not a "passive foreign investment company" within the meaning of Section 1297 of the Code; or (iii) has never had a permanent establishment (within the meaning of an applicable Tax treaty) or otherwise had an office or fixed place of business in a country other than the country in which it is organized.

(k) The Company has never participated in or been a party to a transaction that, as of the date of this Agreement, constitutes a "listed transaction" that is required to be reported to the IRS pursuant to Section 6011 of the Code and applicable Treasury Regulations thereunder.

(l) The Company has not taken any action or knows of any fact that would reasonably be expected to prevent the Merger from qualifying for the Intended Tax Treatment.

For purposes of this Section 2.16, each reference to the Company shall be deemed to include any Person that was liquidated into, merged with, or is otherwise a predecessor to, the Company.

2.17 **Employee and Labor Matters; Benefit Plans**.

(a) Section 2.17(a) of the Company Disclosure Schedule is a list of all material Company Benefit Plans, including, without limitation, each Company Benefit Plan that provides for retirement, change in control, stay or retention, deferred compensation, incentive compensation, severance or retiree medical or life insurance benefits. "***Company Benefit Plan***" means each (i) "employee benefit plan" as defined in Section 3(3) of ERISA and (ii) other pension, retirement, deferred compensation, excess benefit, profit sharing, bonus, incentive, equity or equity-based, phantom equity, employment (other than at-will employment offer letters on the Company's standard form and other than individual Company Options or other compensatory equity award agreements made pursuant to the Company's standard forms, in which case only representative standard forms of such agreements shall be scheduled), consulting, severance, change-of-control, retention, health, life, disability, group insurance, paid-time off, holiday, welfare and fringe benefit plan, program, agreement, contract, or arrangement (whether

written or unwritten, qualified or nonqualified, funded or unfunded and including any that have been frozen or terminated), in any case, maintained, contributed to, or required to be contributed to, by the Company or Company ERISA Affiliates for the benefit of any current or former employee, director, officer or independent contractor of the Company or under which the Company has any actual or contingent liability (including, without limitation, as to the result of it being treated as a single employer under Code Section 414 with any other person).

(b) As applicable with respect to each material Company Benefit Plan, the Company has made available to Parent, true and complete copies of (i) each material Company Benefit Plan, including all amendments thereto, and in the case of an unwritten material Company Benefit Plan, a written description thereof, (ii) all current trust documents, investment management contracts, custodial agreements, administrative services agreements and insurance and annuity contracts relating thereto, (iii) the current summary plan description and each summary of material modifications thereto, (iv) the most recently filed annual reports with any Governmental Body (*e.g.*, Form 5500 and all schedules thereto), (v) the most recent IRS determination, opinion or advisory letter, (vi) the most recent summary annual reports, nondiscrimination testing reports, actuarial reports, financial statements and trustee reports, (vii) all records, notices and filings concerning IRS or Department of Labor or other Governmental Body audits or investigations, "prohibited transactions" within the meaning of Section 406 of ERISA or Section 4975 of the Code, (viii) all policies and procedures established to comply with the privacy and security rules of HIPAA and (ix) any written reports constituting a valuation of the Company's capital stock for purposes of Sections 409A or 422 of the Code, whether prepared internally by the Company or by an outside, third-party valuation firm.

(c) Each material Company Benefit Plan has been maintained, operated and administered in compliance in all material respects with its terms and any related documents or agreements and the applicable provisions of ERISA, the Code and all other Laws.

(d) The Company Benefit Plans which are "employee pension benefit plans" within the meaning of Section 3(2) of ERISA and which are intended to meet the qualification requirements of Section 401(a) of the Code have received determination or opinion letters from the IRS on which they may currently rely to the effect that such plans are qualified under Section 401(a) of the Code and the related trusts are exempt from federal income Taxes under Section 501(a) of the Code, respectively, and to the Knowledge of the Company, nothing has occurred that would reasonably be expected to materially adversely affect the qualification of such Company Benefit Plan or the tax exempt status of the related trust.

(e) Neither the Company, nor any Company ERISA Affiliate maintains, contributes to, is required to contribute to, or has any actual or contingent liability with respect to, (i) any "employee pension benefit plan" (within the meaning of Section 3(2) of ERISA) that is subject to Title IV or Section 302 of ERISA or Section 412 of the Code, (ii) any "multiemployer plan" (within the meaning of Section 3(37) of ERISA), (iii) any "multiple employer plan" (within the meaning of Section 413 of the Code) or (iv) any "multiple employer welfare arrangement" (within the meaning of Section 3(40) of ERISA).

(f) There are no pending audits or investigations by any Governmental Body involving any Company Benefit Plan, and no pending or, to the Knowledge of the Company, threatened claims (except for individual claims for benefits payable in the normal operation of the Company Benefit Plans), suits or proceedings involving any Company Benefit Plan, any fiduciary thereof or service provider thereto, in any case except as would not be reasonably expected to result in material liability to the Company. All contributions and premium payments required to have been made under any of the Company Benefit Plans or by applicable Law (without regard to any waivers granted under Section 412 of the Code), have been timely made and neither the Company nor any Company ERISA Affiliate has any liability for any unpaid contributions with respect to any Company Benefit Plan.

(g) Neither the Company, or Company ERISA Affiliates, nor to the Knowledge of the Company, any fiduciary, trustee or administrator of any Company Benefit Plan, has engaged in, or in connection with the

Contemplated Transactions will engage in, any transaction with respect to any Company Benefit Plan which would subject any such Company Benefit Plan, the Company, or Company ERISA Affiliates or Parent to a material Tax, material penalty or material liability for a "prohibited transaction" under Section 406 of ERISA or Section 4975 of the Code.

(h) No Company Benefit Plan provides death, medical, dental, vision, life insurance or other welfare benefits beyond termination of service or retirement other than coverage mandated by Law and neither the Company nor Company ERISA Affiliates has made a written or oral representation promising the same.

(i) Other than as set forth in Section 2.17(i) of the Company Disclosure Schedule, neither the execution of, nor the performance of the Contemplated Transactions will either alone or in connection with any other event(s) (i) result in any payment becoming due to any current or former employee, director, officer, or independent contractor of the Company, (ii) increase any amount of compensation or benefits otherwise payable under any Company Benefit Plan, (iii) result in the acceleration of the time of payment, funding or vesting of any benefits under any Company Benefit Plan, (iv) require any contribution or payment to fund any obligation under any Company Benefit Plan or (v) limit the right to merge, amend or terminate any Company Benefit Plan.

(j) Neither the execution of, nor the consummation of the Contemplated Transactions (either alone or when combined with the occurrence of any other event, including without limitation, a termination of employment) will result in the receipt or retention by any person who is a "disqualified individual" (within the meaning of Code Section 280G) with respect to the Company of any payment or benefit that is or could be characterized as a "parachute payment" (within the meaning of Code Section 280G), determined without regard to the application of Code Section 280G(b)(5).

(k) The exercise price of each Company Option is not, never has been and can never be less than the fair market value of one share of Company Common Stock as of the grant date of such Company Option, except in accordance with Section 409A and/or Section 424(a) of the Code.

(l) Each Company Benefit Plan providing for deferred compensation that constitutes a "nonqualified deferred compensation plan" (as defined in Section 409A(d)(1) of the Code and the regulations promulgated thereunder) is, and has been, established, administered and maintained in compliance with the requirements of Section 409A of the Code and the regulations promulgated thereunder in all material respects.

(m) No current or former employee, officer, director or independent contractor of the Company has any "gross up" agreements with the Company or other assurance of reimbursement by the Company for any Taxes imposed under Code Section 409A or Code Section 4999.

(n) The Company does not have any Company Benefit Plan that is maintained outside of the United States.

(o) The Company is not a party to, bound by, or has a duty to bargain under, any collective bargaining agreement or other Contract with a labor union, labor organization, or similar Person representing any of its employees, and there is no labor union, labor organization, or similar Person representing or, to the Knowledge of the Company, purporting to represent or seeking to represent any employees of the Company, including through the filing of a petition for representation election.

(p) The Company is, and since May 3, 2017 has been, in material compliance with all applicable Laws respecting labor, employment, employment practices, and terms and conditions of employment, including worker classification, discrimination, harassment and retaliation, equal employment opportunities, fair employment practices, meal and rest periods, immigration, employee safety and health, wages (including overtime wages), unemployment and workers' compensation, leaves of absence, and hours of work. Except as would not be reasonably likely to result in a material liability to the Company, with respect to employees of the

Company, the Company, since May 3, 2017: (i) has withheld and reported all amounts required by Law or by agreement to be withheld and reported with respect to wages, salaries and other payments, benefits, or compensation to employees, (ii) is not liable for any arrears of wages (including overtime wages), severance pay or any Taxes or any penalty for failure to comply with any of the foregoing, and (iii) is not liable for any payment to any trust or other fund governed by or maintained by or on behalf of any Governmental Body, with respect to unemployment compensation benefits, disability, social security or other benefits or obligations for employees (other than routine payments to be made in the Ordinary Course of Business). There are no actions, suits, claims, charges, lawsuits, investigations, audits or administrative matters pending or, to the Knowledge of the Company, threatened or reasonably anticipated against the Company relating to any employee, applicant for employment, consultant, employment agreement or Company Benefit Plan (other than routine claims for benefits).

(q) Except as would not be reasonably likely to result in a material liability to the Company, with respect to each individual who currently renders services to the Company, the Company has accurately classified each such individual as an employee, independent contractor, or otherwise under all applicable Laws and, for each individual classified as an employee, the Company has accurately classified him or her as overtime eligible or overtime ineligible under all applicable Laws. The Company does not have any material liability with respect to any misclassification of: (a) any Person as an independent contractor rather than as an employee, (b) any employee leased from another employer, or (c) any employee currently or formerly classified as exempt from overtime wages.

(r) There is not and has not been in the past three years, nor is there or has there been in the past three years any threat of, any strike, slowdown, work stoppage, lockout, union election petition, demand for recognition, or any similar activity or dispute, or, to the Knowledge of the Company, any union organizing activity, against the Company. No event has occurred, and no condition or circumstance exists, that might directly or indirectly be likely to give rise to or provide a basis for the commencement of any such strike, slowdown, work stoppage, lockout, union election petition, demand for recognition, any similar activity or dispute, or, to the Knowledge of the Company, any union organizing activity.

(s) There is no contract, agreement, plan or arrangement to which the Company or any Company Affiliate is a party or by which it is bound to compensate any of its employees for excise taxes paid pursuant to Section 4999 of the Code.

2.18 **Environmental Matters.** The Company is and since May 3, 2017 has complied with all applicable Environmental Laws, which compliance includes the possession by the Company of all permits and other Governmental Authorizations required under applicable Environmental Laws and compliance with the terms and conditions thereof, except for any failure to be in such compliance that, either individually or in the aggregate, would not reasonably be expected to be material to the Company or its business. The Company has not received since May 3, 2017 (or prior to that time, which is pending and unresolved), any written notice or other communication (in writing or otherwise), whether from a Governmental Body or other Person, that alleges that the Company is not in compliance with or has liability pursuant to any Environmental Law and, to the Knowledge of the Company, there are no circumstances that would reasonably be expected to prevent or interfere with the Company's compliance in any material respects with any Environmental Law, except where such failure to comply would not reasonably be expected to be material to the Company or its business. No current or (during the time a prior property was leased or controlled by the Company or any of its Subsidiaries) prior property leased or controlled by the Company has had a release of or exposure to Hazardous Materials in material violation of or as would reasonably be expected to result in any material liability of the Company pursuant to Environmental Law. No consent, approval or Governmental Authorization of or registration or filing with any Governmental Body is required by Environmental Laws in connection with the execution and delivery of this Agreement or the consummation of the Contemplated Transactions. Prior to the date hereof, the Company has provided or otherwise made available to Parent true and correct copies of all material environmental reports, assessments, studies and audits in the possession or control of the Company with respect to any property leased or controlled by the Company or any business operated by it.

2.19 **Insurance**. The Company has delivered or made available to Parent accurate and complete copies of all material insurance policies and all material self-insurance programs and arrangements relating to the business, assets, liabilities and operations of the Company. Each of such insurance policies is in full force and effect and the Company is in compliance in all material respects with the terms thereof. Other than customary end of policy notifications from insurance carriers, since May 3, 2017, the Company has not received any notice or other communication regarding any actual or possible: (i) cancellation or invalidation of any insurance policy; or (ii) refusal or denial of any coverage, reservation of rights or rejection of any material claim under any insurance policy. The Company has provided timely written notice to the appropriate insurance carrier(s) of each Legal Proceeding that is currently pending against the Company for which the Company has insurance coverage, and no such carrier has issued a denial of coverage or a reservation of rights with respect to any such Legal Proceeding, or informed the Company of its intent to do so.

2.20 **No Financial Advisors**. Except as set forth on Section 2.20 of the Company Disclosure Schedule, no broker, finder or investment banker is entitled to any brokerage fee, finder's fee, opinion fee, success fee, transaction fee or other fee or commission in connection with the Contemplated Transactions based upon arrangements made by or on behalf of the Company.

2.21 **Disclosure**. The information supplied by the Company for inclusion in the Registration Statement and Proxy Statement (including any of the Company Financials) will not, as of the effective date of the Registration Statement and the date of the Proxy Statement or as of the date such information is prepared or presented, (i) contain any statement that is inaccurate or misleading with respect to any material facts, or (ii) omit to state any material fact necessary in order to make such information, in light of the circumstances under which such information will be provided, not false or misleading.

2.22 **Transactions with Affiliates**.

(a) Section 2.22(a) of the Company Disclosure Schedule describes any material transactions or relationships, since May 3, 2017, between, on one hand, the Company and, on the other hand, any (i) executive officer or director of the Company or, to the Knowledge of the Company, or any of such executive officer's or director's immediate family members, (ii) owner of more than 5% of the voting power of the outstanding Company Capital Stock or (iii) to the Knowledge of the Company, any "related person" (within the meaning of Item 404 of Regulation S-K under the Securities Act) of any such officer, director or owner (other than the Company) in the case of each of (i), (ii) or (iii) that is of the type that would be required to be disclosed under Item 404 of Regulation S-K under the Securities Act.

(b) Section 2.22(b) of the Company Disclosure Schedule lists each stockholders agreement, voting agreement, registration rights agreement, co-sale agreement or other similar Contract between the Company and any holders of Company Capital Stock, including any such Contract granting any Person investor rights, rights of first refusal, rights of first offer, registration rights, director designation rights or similar rights (collectively, the "***Investor Agreements***").

2.23 **Anti-Bribery**. The Company or any of their respective directors, officers, employees or, to the Company's Knowledge, agents or any other Person acting on their behalf has not, directly or indirectly, made any bribes, rebates, payoffs, influence payments, kickbacks, illegal payments, illegal political contributions, or other payments, in the form of cash, gifts, or otherwise, or taken any other action, in violation of the Foreign Corrupt Practices Act of 1977, the UK Bribery Act of 2010 or any other anti-bribery or anti-corruption Law (collectively, the "***Anti-Bribery Laws***"). The Company has not been the subject of any investigation or inquiry by any Governmental Body with respect to potential violations of Anti-Bribery Laws.

2.24 **Disclaimer of Other Representations or Warranties**. Except as previously set forth in this Section 2 or in any certificate delivered by the Company to Parent and/or Merger Sub pursuant to this Agreement, the Company makes no representation or warranty, express or implied, at law or in equity, with

respect to it or any of its assets, liabilities or operations, and any such other representations or warranties are hereby expressly disclaimed.

Section 3. REPRESENTATIONS AND WARRANTIES OF PARENT AND MERGER SUB

Subject to Section 10.13(h), except (a) as set forth in the disclosure schedule delivered by Parent to the Company (the "***Parent Disclosure Schedule***") or (b) as disclosed in the Parent SEC Documents filed with the SEC prior to the date hereof and publicly available on the SEC's Electronic Data Gathering Analysis and Retrieval system (but (i) without giving effect to any amendment thereof filed with, or furnished to the SEC on or after the date hereof and (ii) excluding any disclosures contained under the heading "Risk Factors" and any disclosure of risks included in any "forward-looking statements" disclaimer or in any other section to the extent they are forward-looking statements or cautionary, predictive or forward-looking in nature), it being understood that any matter disclosed in the Parent SEC Documents shall not be deemed disclosed for the purposes of Section 3.1, Section 3.2, Section 3.3, Section 3.4, Section 3.5 or Section 3.6 and (y) shall be deemed to be disclosed in a section of the Parent Disclosure Schedule only to the extent that it is reasonably apparent form a reading of such Parent SEC Document that it is applicable to such section of the Parent Disclosure Schedule, Parent and Merger Sub represent and warrant to the Company as follows:

3.1 **Due Organization; No Subsidiaries**.

(a) Each of Parent and Merger Sub is a corporation duly incorporated, validly existing and in good standing under the Laws of the State of Delaware, and has all necessary corporate power and authority: (i) to conduct its business in the manner in which its business is currently being conducted; (ii) to own or lease and use its property and assets in the manner in which its property and assets are currently owned or leased and used; and (iii) to perform its obligations under all Contracts by which it is bound, except where the failure to have such power or authority would not reasonably be expected to prevent or materially delay the ability of Parent and Merger Sub to consummate the Contemplated Transactions. Since the date of its incorporation, Merger Sub has not engaged in any activities other than activities incident to its formation or in connection with or as contemplated by this Agreement.

(b) Parent is duly licensed and qualified to do business, and is in good standing (to the extent applicable in such jurisdiction), under the Laws of all jurisdictions where the nature of its business requires such licensing or qualification other than in jurisdictions where the failure to be so qualified individually or in the aggregate would not be reasonably expected to have a Parent Material Adverse Effect.

(c) Other than Merger Sub, Parent does not have any Subsidiary.

(d) Parent is not and has not otherwise been, directly or indirectly, a party to, member of or participant in any partnership, joint venture or similar business entity. Parent has not agreed and is not obligated to make, and is not bound by any Contract under which it may become obligated to make, any future investment in or capital contribution to any other Entity. Parent has not, at any time, been a general partner of, and has not otherwise been liable for any of the debts or other obligations of, any general partnership, limited partnership or other Entity.

3.2 **Organizational Documents.** Parent has made available to the Company accurate and complete copies of Parent's and Merger Sub's Organizational Documents in effect as of the date of this Agreement. Neither Parent nor Merger Sub is in material breach or violation of its respective Organizational Documents.

3.3 **Authority; Binding Nature of Agreement**. Each of Parent and Merger Sub has all necessary corporate power and authority to enter into and to perform its obligations under this Agreement and, subject, with respect to Parent, to receipt of the Required Parent Stockholder Vote and, with respect to Merger Sub, the adoption of this Agreement by Parent in its capacity as sole stockholder of Merger Sub, to perform its obligations

hereunder and to consummate the Contemplated Transactions. The Parent Board (at meetings duly called and held) has: (a) determined that the Contemplated Transactions are fair to, advisable and in the best interests of Parent and its stockholders; (b) authorized, approved and declared advisable this Agreement and the Contemplated Transactions, including the issuance of shares of Parent Common Stock to the stockholders of the Company pursuant to the terms of this Agreement and the treatment of the Company Options pursuant to this Agreement; and (c) determined to recommend, upon the terms and subject to the conditions set forth in this Agreement, that the stockholders of Parent vote to approve this Agreement and the Contemplated Transactions, including the issuance of shares of Parent Common Stock to the stockholders of the Company pursuant to the terms of this Agreement. The Merger Sub Board (by unanimous written consent) has: (x) determined that the Contemplated Transactions are fair to, advisable, and in the best interests of Merger Sub and its sole stockholder; (y) deemed advisable and approved this Agreement and the Contemplated Transactions; and (z) determined to recommend, upon the terms and subject to the conditions set forth in this Agreement, that the stockholder of Merger Sub vote to adopt this Agreement and thereby approve the Contemplated Transactions. This Agreement has been duly executed and delivered by Parent and Merger Sub and, assuming the due authorization, execution and delivery by the Company, constitutes the legal, valid and binding obligation of Parent and Merger Sub, enforceable against each of Parent and Merger Sub in accordance with its terms, subject to the Enforceability Exceptions. Prior to the execution of the Company Stockholder Support Agreements, the Parent Board approved the Parent Stockholder Support Agreements and the transactions contemplated thereby.

3.4 **Vote Required**. The affirmative vote (i) of the holders of a majority of the outstanding shares of Parent Common Stock is the only vote of the holders of any class or series of Parent's capital stock necessary to approve the proposal in Section 5.3(a)(i) and (ii) of a majority of the votes cast is the only vote of the holders of any class or series of Parent's capital stock necessary to approve the proposals in Section 5.3(a)(ii) and Section 5.3(a)(iii) (the "***Required Parent Stockholder Vote***").

3.5 **Non-Contravention; Consents**. Subject to obtaining the Required Parent Stockholder Vote and the filing of the Certificate of Merger required by the DGCL, neither (x) the execution, delivery or performance of this Agreement by Parent or Merger Sub, nor (y) the consummation of the Contemplated Transactions, will directly or indirectly (with or without notice or lapse of time):

(a) contravene, conflict with or result in a violation of any of the provisions of the Organizational Documents of Parent or Merger Sub;

(b) contravene, conflict with or result in a violation of, or give any Governmental Body the right to challenge the Contemplated Transactions or to exercise any remedy or obtain any relief under, any Law or any order, writ, injunction, judgment or decree to which Parent or Merger Sub, or any of the assets owned or used by Parent or Merger Sub, is subject, except as would not reasonably be expected to be material to Parent or its business;

(c) contravene, conflict with or result in a violation of any of the terms or requirements of, or give any Governmental Body the right to revoke, withdraw, suspend, cancel, terminate or modify, any Governmental Authorization that is held by Parent, except as would not reasonably be expected to be material to Parent or its business;

(d) contravene, conflict with or result in a violation or breach of, or result in a default under, any provision of any Parent Material Contract, or give any Person the right to: (i) declare a default or exercise any remedy under any Parent Material Contract; (ii) any material payment, rebate, chargeback, penalty or change in delivery schedule under any Parent Material Contract; (iii) accelerate the maturity or performance of any Parent Material Contract; or (iv) cancel, terminate or modify any term of any Parent Material Contract, except in the case of any non-material breach, default, penalty or modification; or

(e) result in the imposition or creation of any Encumbrance upon or with respect to any asset owned or used by Parent (except for Permitted Encumbrances).

Except for (i) the filing of the Certificate of Merger with the Secretary of State of the State of Delaware pursuant to the DGCL, and (ii) such consents, waivers, approvals, orders, authorizations, registrations, declarations and filings as may be required under applicable federal and state securities Laws, Parent is not and will not be required to make any filing with or give any notice to, or to obtain any Consent from, any Governmental Body in connection with (x) the execution, delivery or performance of this Agreement, the Parent Stockholder Support Agreements and the Parent Lock-Up Agreements or (y) the consummation of the Contemplated Transactions, which if individually or in the aggregate were not given or obtained, would reasonably be expected to prevent or materially delay the ability of Parent and Merger Sub to consummate the Contemplated Transactions. The Parent Board and the Merger Sub Board have taken and will take all actions necessary to ensure that the restrictions applicable to business combinations contained in Section 203 of the DGCL are, and will be, inapplicable to the execution, delivery and performance of this Agreement, the Parent Stockholder Support Agreements and to the consummation of the Contemplated Transactions. No other state takeover statute or similar Law applies or purports to apply to the Merger, this Agreement, the Parent Stockholder Support Agreements or any of the Contemplated Transactions.

3.6 **Capitalization**.

(a) The authorized capital stock of Parent as of the date of this Agreement consists of (i) 200,000,000 shares of Parent Common Stock, par value $0.001 per share, of which 23,899,261 shares have been issued and are outstanding as of the close of business on the Reference Date and (ii) 10,000,000 shares of preferred stock of Parent, par value $0.001 per share, of which no shares have been issued and are outstanding as of the date of this Agreement. Parent does not hold any shares of its capital stock in its treasury. Section 3.6(a) of the Parent Disclosure Schedule lists, as of the Reference Date, (A) each holder of issued and outstanding Parent Warrants, (B) the number and type of shares subject to each Parent Warrant, (C) the exercise price of each Parent Warrant and (D) the termination date of each Parent Warrant.

(b) All of the outstanding shares of Parent Common Stock have been duly authorized and validly issued, and are fully paid and nonassessable. None of the outstanding shares of Parent Common Stock is entitled or subject to any preemptive right, right of participation, right of maintenance or any similar right and none of the outstanding shares of Parent Common Stock is subject to any right of first refusal in favor of Parent. Except as contemplated herein, there is no Parent Contract relating to the voting or registration of, or restricting any Person from purchasing, selling, pledging or otherwise disposing of (or granting any option or similar right with respect to), any shares of Parent Common Stock. Parent is not under any obligation, nor is it bound by any Contract pursuant to which it may become obligated, to repurchase, redeem or otherwise acquire any outstanding shares of Parent Common Stock or other securities.

(c) Except for the Parent Stock Plans, Parent does not have any stock option plan or any other plan, program, agreement or arrangement providing for any equity-based compensation for any Person. As of the date of this Agreement, Parent has reserved 6,981,385 shares of Parent Common Stock for issuance under the Parent Stock Plans, of which 229,377 shares have been issued and are currently outstanding, 4,216,238 shares have been reserved for issuance upon exercise of Parent Options previously granted and currently outstanding under the Parent Stock Plans, 921,263 shares have been reserved for issuance upon the settlement of Parent RSUs granted under the Parent Stock Plans that are outstanding as of the date of this Agreement, 191,972 shares have been granted under the ESPP and 1,422,535 shares remain available for future issuance pursuant to the Parent Stock Plans.

(d) Except for the Parent Warrants, the Parent Stock Plans, including the Parent Options and the Parent RSUs, and as otherwise set forth on Section 3.6(d) of the Parent Disclosure Schedule, there is no: (i) outstanding subscription, option, call, warrant or right (whether or not currently exercisable) to acquire any shares of the capital stock or other securities of Parent or any of its Subsidiaries; (ii) outstanding security, instrument or obligation that is or may become convertible into or exchangeable for any shares of the capital stock or other securities of Parent or any of its Subsidiaries; or (iii) condition or circumstance that is reasonably

likely to give rise to or provide a basis for the assertion of a claim by any Person to the effect that such Person is entitled to acquire or receive any shares of capital stock or other securities of Parent or any of its Subsidiaries. There are no outstanding or authorized stock appreciation, phantom stock, profit participation or other similar rights with respect to Parent or any of its Subsidiaries.

(e) All outstanding shares of Parent Common Stock, Parent Options, Parent RSUs, Parent Warrants and other securities of Parent have been issued and granted in material compliance with (i) all applicable securities Laws and other applicable Law, and (ii) all requirements set forth in applicable Contracts.

3.7 **SEC Filings; Financial Statements**.

(a) Parent has delivered or made available to the Company accurate and complete copies of all registration statements, proxy statements, Certifications (as defined below) and other statements, reports, schedules, forms and other documents filed by Parent with the SEC since January 1, 2017 (the "***Parent SEC Documents***"), other than such documents that can be obtained on the SEC's website at www.sec.gov. All material statements, reports, schedules, forms and other documents required to have been filed by Parent or its officers with the SEC have been so filed on a timely basis. As of the time it was filed with the SEC (or, if amended or superseded by a filing prior to the date of this Agreement, then on the date of such filing), each of the Parent SEC Documents complied in all material respects with the applicable requirements of the Securities Act or the Exchange Act (as the case may be) and, as of the time they were filed, none of the Parent SEC Documents contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading. The certifications and statements required by (i) Rule 13a-14 under the Exchange Act and (ii) 18 U.S.C. §1350 (Section 906 of the Sarbanes-Oxley Act) relating to the Parent SEC Documents (collectively, the "***Certifications***") are accurate and complete and comply as to form and content with all applicable Laws. As used in this Section 3.7, the term "file" and variations thereof shall be broadly construed to include any manner in which a document or information is furnished, supplied or otherwise made available to the SEC.

(b) The financial statements (including any related notes) contained or incorporated by reference in the Parent SEC Documents: (i) complied as to form in all material respects with the published rules and regulations of the SEC applicable thereto; (ii) were prepared in accordance with GAAP (except as may be indicated in the notes to such financial statements or, in the case of unaudited financial statements, except as permitted by Form 10-Q of the SEC, and except that the unaudited financial statements may not contain footnotes and are subject to normal and recurring year-end adjustments) applied on a consistent basis unless otherwise noted therein throughout the periods indicated; and (iii) fairly present, in all material respects, the financial position of Parent as of the respective dates thereof and the results of operations and cash flows of Parent for the periods covered thereby. Other than as expressly disclosed in the Parent SEC Documents filed prior to the date hereof, there has been no material change in Parent's accounting methods or principles that would be required to be disclosed in Parent's financial statements in accordance with GAAP.

(c) Except as disclosed on Section 3.7(c) Parent Disclosure Schedule, since January 1, 2018 through the date of this Agreement, Parent has not received any comment letter from the SEC or the staff thereof or any correspondence from officials of Nasdaq or the staff thereof relating to the delisting or maintenance of listing of the Parent Common Stock on Nasdaq.

(d) Since January 1, 2018 through the date of this Agreement, there have been no formal internal investigations regarding financial reporting or accounting policies and practices discussed with, reviewed by or initiated at the direction of the Chief Executive Officer, Chief Financial Officer or general counsel of Parent, the Parent Board or any committee thereof. Since January 1, 2018, neither Parent nor its independent auditors have identified (i) any significant deficiency or material weakness in the design or operation of the system of internal accounting controls utilized by Parent, (ii) any fraud, whether or not material, that involves Parent, Parent's management or other employees who have a role in the preparation of financial statements or the internal accounting controls utilized by Parent or (iii) any claim or allegation regarding any of the foregoing.

(e) As of the date of this Agreement, Parent is in compliance in all material respects with the applicable current listing and governance rules and regulations of Nasdaq.

(f) Parent maintains a system of internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act) that is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with GAAP and to provide reasonable assurance (i) that transactions are recorded as necessary to permit preparation of financial statements in accordance with GAAP, (ii) that receipts and expenditures are made only in accordance with authorizations of management and the Parent Board and (iii) regarding prevention or timely detection of the unauthorized acquisition, use or disposition of Parent's assets that could have a material effect on Parent's financial statements. Parent has evaluated the effectiveness of Parent's internal control over financial reporting as of December 31, 2019, and, to the extent required by applicable Law, presented in any applicable Parent SEC Document that is a report on Form 10-K or Form 10-Q (or any amendment thereto) its conclusions about the effectiveness of the internal control over financial reporting as of the end of the period covered by such report or amendment based on such evaluation. Parent has disclosed, based on its most recent evaluation of internal control over financial reporting, to Parent's auditors and audit committee (and made available to the Company a summary of the significant aspects of such disclosure) (A) all significant deficiencies, if any, in the design or operation of internal control over financial reporting that are reasonably likely to adversely affect Parent's ability to record, process, summarize and report financial information and (B) any known fraud that involves management or other employees who have a significant role in Parent's internal control over financial reporting or in managing clinical trials. Parent has not identified, based on its most recent evaluation of internal control over financial reporting, any material weaknesses in the design or operation of Parent's internal control over financial reporting.

(g) Parent maintains "disclosure controls and procedures" (as defined in Rules 13a-15(e) and 15d-15(e) of the Exchange Act) that are reasonably designed to ensure that information required to be disclosed by Parent in the periodic reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the required time periods, and that all such information is accumulated and communicated to Parent's management as appropriate to allow timely decisions regarding required disclosure and to make the Certifications.

3.8 **Absence of Changes**. Except as set forth on Section 3.8 of the Parent Disclosure Schedule, between the date of the Parent Balance Sheet and the date of this Agreement, Parent and the Merger Sub have conducted its business only in the Ordinary Course of Business (except for the execution and performance of this Agreement and the discussions, negotiations and transactions related thereto) and there has not been any (a) Parent Material Adverse Effect or (b) action, event or occurrence that would have required the consent of the Company pursuant to Section 4.1(b) had such action, event or occurrence taken place after the execution and delivery of this Agreement.

3.9 **Absence of Undisclosed Liabilities**. As of the date hereof, Parent does not have any Liability, individually or in the aggregate, of a type required to be recorded or reflected on a balance sheet or disclosed in the footnotes thereto under GAAP except for: (a) Liabilities disclosed, reflected or reserved against in the Parent Balance Sheet; (b) Liabilities that have been incurred by Parent since the date of the Parent Balance Sheet in the Ordinary Course of Business; (c) Liabilities for performance of obligations of Parent under Parent Contracts; (d) Liabilities incurred in connection with the Contemplated Transactions; (e) Liabilities which would not, individually or in the aggregate, reasonably be expected to be material to Parent; and (f) Liabilities described in Section 3.9 of the Parent Disclosure Schedule.

3.10 **Title to Assets**. Parent owns, and has good and valid title to, or, in the case of leased properties and assets, valid leasehold interests in, all tangible properties or tangible assets and equipment used or held for use in its business or operations or purported to be owned by it, including: (a) all tangible assets reflected on the Parent Balance Sheet; and (b) all other tangible assets reflected in the books and records of Parent as being

owned by Parent. All of such assets are owned or, in the case of leased assets, leased by Parent free and clear of any Encumbrances, other than Permitted Encumbrances.

3.11 **Real Property; Leasehold**. Parent does not own any real property. Parent has made available to the Company (a) an accurate and complete list of all real properties with respect to which Parent directly or indirectly holds a valid leasehold interest as well as any other real estate that is in the possession of or leased by Parent, and (b) copies of all leases under which any such real property is possessed (the "***Parent Real Estate Leases***"), each of which is in full force and effect, with no existing material default thereunder. Parent's use and operation of each such leased property conforms to all applicable Laws in all material respects, and Parent has exclusive possession of each such leased property and has not granted any occupancy rights to tenants or licensees with respect to such leased property. In addition, each such leased property is free and clear of all Encumbrances other than Permitted Encumbrances.

3.12 **Intellectual Property**.

(a) Section 3.12(a) of the Parent Disclosure Schedule identifies (i) the name of the applicant/registrant, (ii) the jurisdiction of application/registration, (iii) the application or registration number and (iv) any other co-owners, for each item of material Registered IP owned in whole or in part by Parent. To the Knowledge of Parent, each of the patents and patent applications included in the material Registered IP properly identifies by name each and every inventor of the inventions claimed therein as determined in accordance with applicable Laws of the United States. As of the date of this Agreement, no interference, opposition, reissue, reexamination or other proceeding of any nature (other than initial examination proceedings) is pending or, to the Knowledge of Parent, threatened in writing, in which the scope, validity, enforceability or ownership of any Registered IP listed on Section 3.12(a) of the Parent Disclosure Schedule is being or has been contested or challenged.

(b) Parent owns all right, title and interest in and to all material Parent IP (other than as disclosed on Section 3.12(a) of the Parent Disclosure Schedule), free and clear of all Encumbrances other than Permitted Encumbrances. To the Knowledge of Parent, each Parent Associate involved in the creation or development of any material Parent IP, pursuant to such Parent Associate's activities on behalf of Parent, has signed a written agreement containing an assignment of such Parent Associate's rights in such Parent IP to Parent and confidentiality provisions protecting the Parent IP.

(c) To the Knowledge of Parent, no funding, facilities or personnel of any Governmental Body or any university, college, research institute or other educational institution has been used to create Parent IP, except for any such funding or use of facilities or personnel that does not result in such Governmental Body or institution obtaining ownership rights to such Parent IP or the right to receive royalties for the practice of such Parent IP other than such ownership rights or rights to receive royalties for the practice of such Parent IP as disclosed on Section 3.12(c) of Parent Disclosure Schedule.

(d) Section 3.12(d) of Parent Disclosure Schedule sets forth each license agreement pursuant to which Parent (i) is granted a license under any material Intellectual Property Right owned by any third party that is used by Parent in its business as currently conducted (each a "***Parent In-bound License***") or (ii) grants to any third party a license under any material Parent IP or material Intellectual Property Right licensed to Parent under a Parent In-bound License (each a "***Parent Out-bound License***") (*provided*, that, Parent In-bound Licenses shall not include material transfer agreements, services agreements, clinical trial agreements, non-disclosure agreements, commercially available Software-as-a-Service offerings, off-the-shelf software licenses or generally available patent license agreements entered into in the Ordinary Course of Business; and Parent Out-bound Licenses shall not include material transfer agreements, clinical trial agreements, services agreements, non-disclosure agreements, or non-exclusive outbound licenses entered into in the Ordinary Course of Business).

(e) To the Knowledge of Parent, (i) the operation of the business of Parent as currently conducted does not infringe any valid and enforceable Registered IP or misappropriate or otherwise violate any other

Intellectual Property Right owned by any other Person; and (ii) no other Person is infringing, misappropriating or otherwise violating any Parent IP or any Intellectual Property Rights exclusively licensed to Parent. As of the date of this Agreement, no Legal Proceeding is pending (or, to the Knowledge of Parent, is threatened in writing) (A) against Parent alleging that the operation of the business of Parent infringes or constitutes the misappropriation or other violation of any Intellectual Property Rights of another Person or (B) by Parent alleging that another Person has infringed, misappropriated or otherwise violated any of Parent IP or any Intellectual Property Rights exclusively licensed to Parent. Since January 1, 2017, Parent has not received any written notice or other written communication alleging that the operation of the business of Parent infringes or constitutes the misappropriation or other violation of any Intellectual Property Right of another Person.

(f) None of Parent IP or, to the Knowledge of Parent, any material Intellectual Property Rights exclusively licensed to Parent is subject to any pending or outstanding injunction, directive, order, judgment or other disposition of dispute that adversely and materially restricts the use, transfer, registration or licensing by Parent of any such Parent IP or material Intellectual Property Rights exclusively licensed to Parent or its Subsidiaries.

(g) To the Knowledge of Parent, Parent, and the operation of Parent's business are in substantial compliance with all Laws pertaining to data privacy and data security of Sensitive Data, except to the extent that such noncompliance has not and would not reasonably be expected to have a Parent Material Adverse Effect. To the Knowledge of Parent, since January 1, 2017, there have been (i) no material losses or thefts of data or security breaches relating to Sensitive Data used in the business of Parent, (ii) no violations of any security policy of Parent regarding any such Sensitive Data, (iii) no unauthorized access or unauthorized use of any Sensitive Data used in the business of Parent and (iv) no unintended or improper disclosure of any personally identifiable information in the possession, custody or control of Parent, or a contractor or agent acting on behalf of Parent, in each case of (i) through (iv), except as would not reasonably be expected to, individually or in the aggregate, have a Parent Material Adverse Effect.

3.13 **Agreements, Contracts and Commitments**. Section 3.13 of the Parent Disclosure Schedule identifies each Parent Contract that is in effect as of the date of this Agreement (other than any Parent Benefit Plan) and is:

(a) a material contract as defined in Item 601(b)(10) of Regulation S-K as promulgated under the Securities Act;

(b) each Contract relating to any agreement of indemnification or guaranty not entered into in the Ordinary Course of Business;

(c) each Contract containing (A) any covenant limiting the freedom of Parent to engage in any line of business or compete with any Person, (B) any most-favored pricing arrangement, (C) any exclusivity provision, or (D) any non-solicitation provision;

(d) each Contract relating to capital expenditures and requiring payments after the date of this Agreement in excess of $50,000 pursuant to its express terms and not cancelable without penalty;

(e) each Contract relating to the disposition or acquisition of material assets or any ownership interest in any Entity;

(f) each Contract relating to any mortgages, indentures, loans, notes or credit agreements, security agreements or other agreements or instruments relating to the borrowing of money or extension of credit or creating any material Encumbrances with respect to any assets of Parent or any loans or debt obligations with officers or directors of Parent;

(g) each Contract requiring payment by or to Parent after the date of this Agreement in excess of $100,000 pursuant to its express terms relating to: (A) any distribution agreement (identifying any that contain exclusivity provisions); (B) any agreement involving provision of services or products with respect to any pre-clinical or clinical development activities of Parent; (C) any dealer, distributor, joint marketing, alliance, joint venture, cooperation, development or other agreement currently in force under which Parent has continuing obligations to develop or market any product, technology or service, or any agreement pursuant to which Parent has continuing obligations to develop any Intellectual Property Rights that will not be owned, in whole or in part, by Parent; or (D) any Contract to license any third party to manufacture or produce any product, service or technology of Parent or any Contract to sell, distribute or commercialize any products or service of Parent, in each case, except for Contracts entered into in the Ordinary Course of Business;

(h) each Contract with any Person, including any financial advisor, broker, finder, investment banker or other Person, providing advisory services to Parent in connection with the Contemplated Transactions;

(i) each Parent Real Estate Lease;

(j) each Contract with any Governmental Body;

(k) each Parent Out-bound License and Parent In-bound License;

(l) each Contract containing any royalty, dividend or similar arrangement based on the revenues or profits of Parent; or

(m) any other Contract that is not terminable at will (with no penalty or payment) by Parent and (A) which involves payment or receipt by Parent after the date of this Agreement under any such agreement, contract or commitment of more than $100,000 in the aggregate, or obligations after the date of this Agreement in excess of $100,000 in the aggregate, or (B) that is material to the business or operations of Parent.

Parent has delivered or made available to the Company accurate and complete copies of all Contracts to which Parent is a party or by which it is bound of the type described in the foregoing clauses (a)-(m) (any such Contract, a "***Parent Material Contract***"). There are no Parent Material Contracts that are not in written form. Parent has not nor, to Parent's Knowledge, as of the date of this Agreement, has any other party to a Parent Material Contract, breached, violated or defaulted under, or received notice that it breached, violated or defaulted under, any of the terms or conditions of or Laws applicable to any Parent Material Contract in such manner as would permit any other party to cancel or terminate any such Parent Material Contract, or would permit any other party to seek damages or pursue other legal remedies which would reasonably be expected to be material to Parent or its business. As to Parent, as of the date of this Agreement, each Parent Material Contract is valid, binding, enforceable and in full force and effect, subject to the Enforceability Exceptions. No Person is renegotiating, or has a right pursuant to the terms of any Parent Material Contract to change, any material amount paid or payable to Parent under any Parent Material Contract or any other material term or provision of any Parent Material Contract.

3.14 **Compliance; Permits**

(a) Parent is, and since January 1, 2017 has been, in compliance in all material respects with all applicable Laws, including the FDCA, the FDA regulations adopted thereunder, the Public Health Service Act and any other similar Law administered or promulgated by the FDA or other Drug Regulatory Agency, except for any noncompliance, either individually or in the aggregate, which would not be material to Parent. No investigation, claim, suit, proceeding, audit or other action by any Governmental Body is pending or, to the Knowledge of Parent, threatened against Parent or any of Parent's officers, directors, managing employees, agents, or representatives, in their capacity as such. There is no agreement, judgment, injunction, order or decree binding upon Parent which (i) has or would reasonably be expected to have the effect of prohibiting or materially

impairing any business practice of Parent, or any of Parent's officers, directors, managing employees, agents, or representatives, in their capacity as such, any acquisition of material property by Parent or the conduct of business by Parent as currently conducted, (ii) is reasonably likely to have an adverse effect on Parent's ability to comply with or perform any covenant or obligation under this Agreement, or (iii) is reasonably likely to have the effect of preventing, delaying, making illegal or otherwise interfering with the Contemplated Transactions.

(b) Parent holds all required Governmental Authorizations which are material to the operation of the business of Parent as currently conducted (the "***Parent Permits***"). Parent holds all rights, title, and interest in and to all Parent Permits free and clear of any encumbrance. Section 3.14(b) of the Parent Disclosure Schedule identifies each Parent Permit. Parent is in material compliance with the terms of the Parent Permits. No Legal Proceeding is pending or, to the Knowledge of Parent, threatened, which seeks to revoke, limit, suspend, or materially modify any Parent Permit.

(c) There are no proceedings pending or, to the Knowledge of Parent, threatened with respect to an alleged material violation by Parent or any of its officer, director, managing employee, agent, or representative with respect to the FDCA, FDA regulations adopted thereunder, the Public Health Service Act or any other similar Law administered or promulgated by any Drug Regulatory Agency.

(d) All clinical, pre-clinical and other studies and tests conducted by or on behalf of, or sponsored by, Parent, or in which Parent or its respective current products or product candidates have participated, were and, if still pending, are being conducted in all material respects in accordance with standard medical and scientific research procedures and in compliance in all material respects with the applicable regulations of any applicable Drug Regulatory Agency and other applicable Law, including 21 C.F.R. Parts 50, 54, 56, 58 and 312. No preclinical or clinical trial conducted by or on behalf of Parent has been terminated or suspended, or been subject to any stock recovery, prior to completion for safety or non-compliance reasons. Since January 1, 2017, Parent has not received any notices, correspondence, or other communications from any Drug Regulatory Agency requiring, or to the Knowledge of Parent threatening to initiate, the termination or suspension of any clinical studies conducted by or on behalf of, or sponsored by, Parent or in which Parent or its current products or product candidates have participated. To the Parent's Knowledge, any third party that is a contractor for Parent is in material compliance with all Governmental Authorizations from the FDA or comparable Governmental Body insofar as they pertain to the manufacture, development, testing, and/or distribution of the products or product candidates of Parent.

(e) Parent has not received any Form FDA-483, notice of adverse finding, FDA warning letters, notice of violation or "untitled letters," or notice of FDA action for import detentions or refusals to allow entry into the United States from the FDA or other Governmental Body alleging or asserting noncompliance with any applicable Law or Governmental Authorization. Parent is not subject to any obligation arising under an FDA inspection, FDA warning letter, FDA notice of violation letter or other enforcement notice, response or commitment made to or with the FDA or any comparable Governmental Body.

(f) Parent is not the subject of any pending or, to the Knowledge of Parent, threatened investigation in respect of its business or products by the FDA pursuant to its "Fraud, Untrue Statements of Material Facts, Bribery, and Illegal Gratuities" Final Policy set forth in 56 Fed. Reg. 46191 (September 10, 1991) and any amendments thereto. To the Knowledge of Parent, Parent has not committed any acts, made any statement, or has not failed to make any statement, in each case in respect of its business or products that would violate the FDA's "Fraud, Untrue Statements of Material Facts, Bribery, and Illegal Gratuities" Final Policy, and any amendments thereto. Parent or any of its officers, employees or agents has not been convicted of any crime or engaged in any conduct that could result in a debarment or exclusion (i) under 21 U.S.C. Section 335a or (ii) any similar applicable Law. No debarment or exclusionary claims, actions, proceedings or investigations in respect of their business or products are pending or, to the Knowledge of Parent, threatened against Parent or any of its officers, employees or agents.

(g) Parent has complied with all Laws relating to patient, medical or individual health information, including HIPAA, including the standards for the privacy of Individually Identifiable Health Information at 45 C.F.R. Parts 160 and 164, Subparts A and E, the standards for the protection of Electronic Protected Health Information set forth at 45 C.F.R. Part 160 and 45 C.F.R. Part 164, Subpart A and Subpart C, the standards for transactions and code sets used in electronic transactions at 45 C.F.R. Part 160, Subpart A and Part 162, and the standards for Breach Notification for Unsecured Protected Health Information at 45 C.F.R. Part 164, Subpart D, all as amended from time to time. Parent has entered into, where required, and is in compliance in all material respects with the terms of all Business Associate Agreements to which Parent is a party or otherwise bound. Parent has created and maintained written policies and procedures to protect the privacy of all protected health information, provide training to all employees and agents as required under HIPAA, and has implemented security procedures, including physical, technical and administrative safeguards, to protect all personal information and Protected Health Information stored or transmitted in electronic form. Parent has not received written notice from the Office for Civil Rights for the U.S. Department of Health and Human Services or any other Governmental Body of any allegation regarding its failure to comply with HIPAA or any other state law or regulation applicable to the protection of individually identifiable health information or personally identifiable information. No successful "Security Incident," "Breach of Unsecured Protected Health Information" or breach of personally identifiable information under applicable state or federal laws have occurred with respect to information maintained or transmitted to Parent or an agent or third party subject to a Business Associate Agreement with Parent. Parent is currently submitting, receiving and handling or is capable of submitting receiving and handling transactions in accordance with the Standard Transaction Rule. All capitalized terms in this Section 3.14(g) not otherwise defined in this Agreement shall have the meanings set forth under HIPAA.

3.15 **Legal Proceedings; Orders**.

(a) As of the date of this Agreement, there is no material pending Legal Proceeding and, to the Knowledge of Parent, no Person has threatened in writing to commence any Legal Proceeding: (i) that involves (A) Parent, (B) the Merger Sub, (C) any Parent Associate (in his or her capacity as such) or (D) any of the material assets owned or used by Parent; or (ii) that challenges, or that may have the effect of preventing, delaying, making illegal or otherwise interfering with, the Contemplated Transactions.

(b) Except as set forth in Section 3.15(b) of the Parent Disclosure Schedule, since January 1, 2017, no Legal Proceeding has been pending against Parent that resulted in material liability to Parent.

(c) There is no order, writ, injunction, judgment or decree to which Parent, or any of the material assets owned or used by Parent, is subject. To the Knowledge of Parent, no officer of Parent is subject to any order, writ, injunction, judgment or decree that prohibits such officer or employee from engaging in or continuing any conduct, activity or practice relating to the business of Parent or to any material assets owned or used by Parent.

3.16 **Tax Matters**.

(a) Parent has timely filed all income Tax Returns and other material Tax Returns that they were required to file under applicable Law. All such Tax Returns are correct and complete in all material respects and have been prepared in compliance with all applicable Law. No written claim has ever been made by any Governmental Body in any jurisdiction where Parent does not file a particular Tax Return or pay a particular Tax that Parent is required to file such Tax Return or pay such Tax in that jurisdiction.

(b) All income and other material Taxes due and owing by Parent on or before the date hereof (whether or not shown on any Tax Return) have been fully paid. The unpaid Taxes of Parent did not, as of the Parent Balance Sheet Date, materially exceed the reserve for Tax liability (excluding any reserve for deferred Taxes established to reflect timing differences between book and Tax items) set forth on the face of the Parent Balance Sheet. Since the Parent Balance Sheet Date, Parent has not incurred any material Liability for Taxes outside the Ordinary Course of Business.

(c) All Taxes that Parent is or was required by Law to withhold or collect have been duly and timely withheld or collected in all material respects on behalf of its respective employees, independent contractors, stockholders, lenders, customers or other third parties and, have been timely paid to the proper Governmental Body or other Person or properly set aside in accounts for this purpose.

(d) There are no Encumbrances for material Taxes (other than Taxes not yet due and payable) upon any of the assets of Parent.

(e) No deficiencies for income or other material Taxes with respect to Parent have been claimed, proposed or assessed by any Governmental Body in writing. There are no pending or ongoing, and to the Knowledge of Parent, threatened audits, assessments or other actions for or relating to any liability in respect of a material amount of Taxes of Parent. Neither Parent nor any of its predecessors has waived any statute of limitations in respect of any income or other material Taxes or agreed to any extension of time with respect to any income or other material Tax assessment or deficiency.

(f) Parent has not been a United States real property holding corporation within the meaning of Section 897(c)(2) of the Code during the applicable period specified in Section 897(c)(1)(A)(ii) of the Code.

(g) Parent is not a party to any Tax allocation agreement, Tax sharing agreement, Tax indemnity agreement, or similar agreement or arrangement, other than customary commercial contracts entered into in the Ordinary Course of Business the principal subject matter of which is not Taxes.

(h) Parent will not be required to include any material item of income in, or exclude any material item of deduction from, taxable income for any Tax period (or portion thereof) ending after the Closing Date as a result of any: (i) change in method of accounting for Tax purposes made on or prior to the Closing Date; (ii) use of an improper method of accounting for a Tax period ending on or prior to the Closing Date; (iii) "closing agreement" as described in Section 7121 of the Code (or any similar provision of state, local or foreign Law) executed on or prior to the Closing Date; (iv) intercompany transaction or excess loss account described in Treasury Regulations under Section 1502 of the Code (or any similar provision of state, local or foreign Law) entered into on or prior to the Closing Date; (v) installment sale or open transaction disposition made on or prior to the Closing Date (other than pursuant to an Asset Disposition); (vi) prepaid amount received or deferred revenue accrued on or prior to the Closing Date; (vii) application of Section 367(d) of the Code to any transfer of intangible property on or prior to the Closing Date; (viii) application of Sections 951 or 951A of the Code (or any similar provision of state, local or foreign Law) to any income received or accrued on or prior to the Closing Date; or (ix) election under Section 108(i) of the Code (or any similar provision of state, local or foreign Law) made on or prior to the Closing Date. Parent has not made any election under Section 965(h) of the Code.

(i) Parent has never been (i) a member of a consolidated, combined or unitary Tax group (other than such a group the common parent of which is Parent) or (ii) a party to any joint venture, partnership, or other arrangement that is treated as a partnership for U.S. federal income Tax purposes. Parent has no Liability for any material Taxes of any other Person under Treasury Regulations Section 1.1502-6 (or any similar provision of state, local, or foreign Law), or as a transferee or successor.

(j) Parent (i) is not a "controlled foreign corporation" as defined in Section 957 of the Code; (ii) is not a "passive foreign investment company" within the meaning of Section 1297 of the Code; or (iii) has never had a permanent establishment (within the meaning of an applicable Tax treaty) or otherwise had an office or fixed place of business in a country other than the country in which it is organized.

(k) Parent has not participated in or been a party to a transaction that, as of the date of this Agreement, constitutes a "listed transaction" that is required to be reported to the IRS pursuant to Section 6011 of the Code and applicable Treasury Regulations thereunder.

(l) Parent has not taken any action or knows of any fact that would reasonably be expected to prevent the Merger from qualifying for the Intended Tax Treatment.

For purposes of this Section 3.16, each reference to Parent shall be deemed to include any Person that was liquidated into, merged with, or is otherwise a predecessor to, Parent.

3.17 **Employee and Labor Matters; Benefit Plans**.

(a) Section 3.17(a) of the Parent Disclosure Schedule is a list of all material Parent Benefit Plans, including, without limitation, each Parent Benefit Plan that provides for retirement, change in control, stay or retention deferred compensation, incentive compensation, severance or retiree medical or life insurance benefits. "***Parent Benefit Plan***" means each (i) "employee benefit plan" as defined in Section 3(3) of ERISA and (ii) other pension, retirement, deferred compensation, excess benefit, profit sharing, bonus, incentive, equity or equity-based, phantom equity, employment (other than at-will employment offer letters on Parent's standard form and other than individual Parent Options, Parent RSUs or other compensatory equity award agreements made pursuant to Parent's standard forms, in which case only representative standard forms of such agreements shall be scheduled), consulting, severance, change-of-control, retention, health, life, disability, group insurance, paid-time off, holiday, welfare and fringe benefit plan, program, contract, or arrangement (whether written or unwritten, qualified or nonqualified, funded or unfunded and including any that have been frozen or terminated), in any case, maintained, contributed to, or required to be contributed to, by Parent or Parent ERISA Affiliates for the benefit of any current or former employee, director, officer or independent contractor of Parent or under which Parent has any actual or contingent liability (including, without limitation, as to the result of it being treated as a single employer under Code Section 414 with any other person).

(b) As applicable with respect to each material Parent Benefit Plan, Parent has made available to the Company, true and complete copies of (i) each material Parent Benefit Plan, including all amendments thereto, and in the case of an unwritten material Parent Benefit Plan, a written description thereof, (ii) all current trust documents, investment management contracts, custodial agreements, administrative services agreements and insurance and annuity contracts relating thereto, (iii) the current summary plan description and each summary of material modifications thereto, (iv) the most recently filed annual reports with any Governmental Body (*e.g.*, Form 5500 and all schedules thereto), (v) the most recent IRS determination, opinion or advisory letter, (vi) the most recent summary annual reports, nondiscrimination testing reports, actuarial reports, financial statements and trustee reports, (vii) all records, notices and filings concerning IRS or Department of Labor or other Governmental Body audits or investigations, "prohibited transactions" within the meaning of Section 406 of ERISA or Section 4975 of the Code, (viii) all policies and procedures established to comply with the privacy and security rules of HIPAA and (ix) any written reports constituting a valuation of Parent's capital stock for purposes of Sections 409A or 422 of the Code, whether prepared internally by Parent or by an outside, third-party valuation firm.

(c) Each material Parent Benefit Plan has been maintained, operated and administered in compliance in all material respects with its terms and any related documents or agreements and the applicable provisions of ERISA, the Code and all other Laws.

(d) The Parent Benefit Plans which are "employee pension benefit plans" within the meaning of Section 3(2) of ERISA and which are intended to meet the qualification requirements of Section 401(a) of the Code have received determination or opinion letters from the IRS on which they may currently rely to the effect that such plans are qualified under Section 401(a) of the Code and the related trusts are exempt from federal income Taxes under Section 501(a) of the Code, respectively, and to the Knowledge of Parent nothing has occurred that would reasonably be expected to materially adversely affect the qualification of such Parent Benefit Plan or the tax exempt status of the related trust.

(e) Neither Parent nor any Parent ERISA Affiliate maintains, contributes to, is required to contribute to, or has any actual or contingent liability with respect to, (i) any "employee pension benefit plan"

(within the meaning of Section 3(2) of ERISA) that is subject to Title IV or Section 302 of ERISA or Section 412 of the Code, (ii) any "multiemployer plan" (within the meaning of Section 3(37) of ERISA), (iii) any "multiple employer plan" (within the meaning of Section 413 of the Code) or (iv) any "multiple employer welfare arrangement" (within the meaning of Section 3(40) of ERISA).

(f) There are no pending audits or investigations by any Governmental Body involving any Parent Benefit Plan, and no pending or, to the Knowledge of Parent, threatened claims (except for individual claims for benefits payable in the normal operation of the Parent Benefit Plans), suits or proceedings involving any Parent Benefit Plan, any fiduciary thereof or service provider thereto, in any case except as would not be reasonably expected to result in material liability to Parent. All contributions and premium payments required to have been made under any of the Parent Benefit Plans or by applicable Law (without regard to any waivers granted under Section 412 of the Code), have been timely made and neither Parent nor any Parent ERISA Affiliate has any liability for any unpaid contributions with respect to any Parent Benefit Plan.

(g) Neither Parent or any Parent ERISA Affiliates, nor to the Knowledge of Parent, any fiduciary, trustee or administrator of any Parent Benefit Plan, has engaged in, or in connection with the Contemplated Transactions engage in, any transaction with respect to any Parent Benefit Plan which would subject any such Parent Benefit Plan, Parent or Parent ERISA Affiliates to a material Tax, material penalty or material liability for a "prohibited transaction" under Section 406 of ERISA or Section 4975 of the Code.

(h) No Parent Benefit Plan provides death, medical, dental, vision, life insurance or other welfare benefits beyond termination of service or retirement other than coverage mandated by Law and neither Parent nor any Parent ERISA Affiliates has made a written or oral representation promising the same.

(i) Other than as set forth in Section 3.17(i) of the Parent Disclosure Schedule, neither the execution of, nor the performance of the Contemplated Transactions will either alone or in connection with any other event(s) (i) result in any payment becoming due to any current or former employee, director, officer, or independent contractor of Parent, (ii) increase any amount of compensation or benefits otherwise payable under any Parent Benefit Plan, (iii) result in the acceleration of the time of payment, funding or vesting of any benefits under any Parent Benefit Plan, (iv) require any contribution or payment to fund any obligation under any Parent Benefit Plan or (v) limit the right to merge, amend or terminate any Parent Benefit Plan.

(j) Neither the execution of, nor the consummation of the Contemplated Transactions (either alone or when combined with the occurrence of any other event, including without limitation, a termination of employment) will result in the receipt or retention by any person who is a "disqualified individual" (within the meaning of Code Section 280G) with respect to Parent of any payment or benefit that is or could be characterized as a "parachute payment" (within the meaning of Code Section 280G), determined without regard to the application of Code Section 280G(b)(5).

(k) The exercise price of each Parent Option is not, never has been and can never be less than the fair market value of one share of Parent Common Stock as of the grant date of such Parent Option, except in accordance with Section 409A and/or Section 424(a) of the Code.

(l) Each Parent Benefit Plan providing for deferred compensation that constitutes a "nonqualified deferred compensation plan" (as defined in Section 409A(d)(1) of the Code and the regulations promulgated thereunder) is, and has been, established, administered and maintained in compliance with the requirements of Section 409A of the Code and the regulations promulgated thereunder in all material respects.

(m) No current or former employee, officer, director or independent contractor of Parent has any "gross up" agreements with Parent or other assurance of reimbursement by Parent for any Taxes imposed under Code Section 409A or Code Section 4999.

(n) Parent does not have any Parent Benefit Plan that is maintained outside of the United States.

(o) Parent is not a party to, bound by, and does not have a duty to bargain under, any collective bargaining agreement or other Contract with a labor union, labor organization, or similar Person representing any of its employees, and there is no labor union, labor organization, or similar Person representing or, to the Knowledge of Parent, purporting to represent or seeking to represent any employees of Parent, including through the filing of a petition for representation election.

(p) Parent is, and since January 1, 2017 has been, in material compliance with all applicable Laws respecting labor, employment, employment practices, and terms and conditions of employment, including worker classification, discrimination, harassment and retaliation, equal employment opportunities, fair employment practices, meal and rest periods, immigration, employee safety and health, wages (including overtime wages), unemployment and workers' compensation, leaves of absence, and hours of work. Except as would not be reasonably likely to result in a material liability to Parent, with respect to employees of Parent, Parent, since January 1, 2017: (i) has withheld and reported all amounts required by Law or by agreement to be withheld and reported with respect to wages, salaries and other payments, benefits, or compensation to employees, (ii) is not liable for any arrears of wages (including overtime wages), severance pay or any Taxes or any penalty for failure to comply with any of the foregoing, and (iii) is not liable for any payment to any trust or other fund governed by or maintained by or on behalf of any Governmental Body, with respect to unemployment compensation benefits, disability, social security or other benefits or obligations for employees (other than routine payments to be made in the Ordinary Course of Business). There are no actions, suits, claims, charges, lawsuits, investigations, audits or administrative matters pending or, to the Knowledge of Parent, threatened or reasonably anticipated against Parent relating to any employee, applicant for employment, consultant, employment agreement or Parent Benefit Plan (other than routine claims for benefits).

(q) Except as would not be reasonably likely to result in a material liability to Parent, with respect to each individual who currently renders services to Parent, Parent has accurately classified each such individual as an employee, independent contractor, or otherwise under all applicable Laws and, for each individual classified as an employee, Parent has accurately classified him or her as overtime eligible or overtime ineligible under all applicable Laws. Parent does not have any material liability with respect to any misclassification of: (a) any Person as an independent contractor rather than as an employee, (b) any employee leased from another employer, or (c) any employee currently or formerly classified as exempt from overtime wages.

(r) There is not and has not been in the past three years, nor is there or has there been in the past three years any threat of, any strike, slowdown, work stoppage, lockout, union election petition, demand for recognition, or any similar activity or dispute, or, to the Knowledge of Parent, any union organizing activity, against Parent. No event has occurred, and no condition or circumstance exists, that might directly or indirectly be likely to give rise to or provide a basis for the commencement of any such strike, slowdown, work stoppage, lockout, union election petition, demand for recognition, any similar activity or dispute, or, to the Knowledge of Parent, any union organizing activity.

(s) There is no contract, agreement, plan or arrangement to which Parent or any Parent Affiliate is a party or by which it is bound to compensate any of its employees for excise taxes paid pursuant to Section 4999 of the Code.

3.18 **Environmental Matters.** Parent is and since January 1, 2017 has complied with all applicable Environmental Laws, which compliance includes the possession by Parent of all permits and other Governmental Authorizations required under applicable Environmental Laws and compliance with the terms and conditions thereof, except for any failure to be in such compliance that, either individually or in the aggregate, would not reasonably be expected to be material to Parent or its business. Parent has not received since January 1, 2017 (or prior to that time, which is pending and unresolved), any written notice or other communication (in writing or otherwise), whether from a Governmental Body or other Person, that alleges that Parent is not in compliance with or has liability pursuant to any Environmental Law and, to the Knowledge of Parent, there are no circumstances that would reasonably be expected to prevent or interfere with Parent's compliance in any material respects with

any Environmental Law, except where such failure to comply would not reasonably be expected to be material to Parent or its business. No current or (during the time a prior property was leased or controlled by Parent) prior property leased or controlled by Parent has had a release of or exposure to Hazardous Materials in material violation of or as would reasonably be expected to result in any material liability of Parent pursuant to Environmental Law. No consent, approval or Governmental Authorization of or registration or filing with any Governmental Body is required by Environmental Laws in connection with the execution and delivery of this Agreement or the consummation of the Contemplated Transactions. Prior to the date hereof, Parent has provided or otherwise made available to the Company true and correct copies of all material environmental reports, assessments, studies and audits in the possession or control of Parent with respect to any property leased or controlled by Parent or any business operated by it.

3.19 **Transactions with Affiliates**. Except as set forth in the Parent SEC Documents filed prior to the date of this Agreement, since the date of Parent's proxy statement filed in 2018 with the SEC, no event has occurred that would be required to be reported by Parent pursuant to Item 404 of Regulation S-K.

3.20 **Insurance**. Parent has delivered or made available to the Company accurate and complete copies of all material insurance policies and all material self-insurance programs and arrangements relating to the business, assets, liabilities and operations of Parent. Each of such insurance policies is in full force and effect and Parent is in compliance in all material respects with the terms thereof. Other than customary end of policy notifications from insurance carriers, since January 1, 2017, Parent has not received any notice or other communication regarding any actual or possible: (i) cancellation or invalidation of any insurance policy; or (ii) refusal or denial of any coverage, reservation of rights or rejection of any material claim under any insurance policy. Parent has provided timely written notice to the appropriate insurance carrier(s) of each Legal Proceeding that is currently pending against Parent for which Parent has insurance coverage, and no such carrier has issued a denial of coverage or a reservation of rights with respect to any such Legal Proceeding, or informed Parent of its intent to do so.

3.21 **No Financial Advisors**. Except as set forth on Section 3.21 of the Parent Disclosure Schedule, no broker, finder or investment banker is entitled to any brokerage fee, finder's fee, opinion fee, success fee, transaction fee or other fee or commission in connection with the Contemplated Transactions based upon arrangements made by or on behalf of Parent.

3.22 **Anti-Bribery**. Neither Parent nor any of its directors, officers, employees or, to Parent's Knowledge, agents or any other Person acting on its behalf has directly or indirectly made any bribes, rebates, payoffs, influence payments, kickbacks, illegal payments, illegal political contributions, or other payments, in the form of cash, gifts, or otherwise, or taken any other action, in violation of Anti-Bribery Laws. Parent is not or has not been the subject of any investigation or inquiry by any Governmental Body with respect to potential violations of Anti-Bribery Laws.

3.23 **Valid Issuance**. The Parent Common Stock to be issued in the Merger will, when issued in accordance with the provisions of this Agreement, be validly issued, fully paid and nonassessable.

3.24 **Shell Company Status**. Parent is not an issuer identified in Rule 144(i)(1)(i) of the Securities Act.

3.25 **Opinion of Financial Advisor**. The Parent Board has received an opinion of Ladenburg Thalmann Financial Services Inc. to the effect that, as of the date of this Agreement and subject to the assumptions, qualifications, limitations and other matters set forth therein, the Exchange Ratio is fair, from a financial point of view, to the stockholders of Parent. It is agreed and understood that such opinion is for the benefit of the Parent Board and may not be relied upon by the Company.

3.26 **Disclosure**. The information supplied by Parent and the Merger Sub for inclusion in the Registration Statement and Proxy Statement (including any of the Parent financial statements) will not, as of the

effective date of the Registration Statement and the date of the Proxy Statement or as of the date such information is prepared or presented, (i) contain any statement that is inaccurate or misleading with respect to any material facts, or (ii) omit to state any material fact necessary in order to make such information, in light of the circumstances under which such information will be provided, not false or misleading.

3.27 **Disclaimer of Other Representations or Warranties**. Except as previously set forth in this Section 3 or in any certificate delivered by Parent or Merger Sub to the Company pursuant to this Agreement, neither Parent nor Merger Sub makes any representation or warranty, express or implied, at law or in equity, with respect to it or any of its assets, liabilities or operations, and any such other representations or warranties are hereby expressly disclaimed.

Section 4. CERTAIN COVENANTS OF THE PARTIES

4.1 **Operation of Parent's Business**.

(a) Except as set forth on Section 4.1(a) of the Parent Disclosure Schedule, as expressly permitted by this Agreement, including in connection with the Asset Dispositions, as required by applicable Law or unless the Company shall otherwise consent in writing (which consent shall not be unreasonably withheld, delayed or conditioned), during the period commencing on the date of this Agreement and continuing until the earlier to occur of the termination of this Agreement pursuant to Section 9 and the Effective Time (the "***Pre-Closing Period***") each of Parent and the Merger Sub shall conduct its business and operations in the Ordinary Course of Business and in compliance in all material respects with all applicable Laws (including maintaining compliance in all material respects with the applicable listing and governance rules and regulations of Nasdaq) and the requirements of all Contracts that constitute Parent Material Contracts. In furtherance and not in limitation of the foregoing, Parent shall file with the SEC its Form 10-K for the year ended December 31, 2019, including all required audited financial statements in connection therewith, in form and substance and in full compliance with, and within the time period required by, applicable law (and in no event shall such Form 10-K not be filed prior to the Closing).

(b) Except (i) as expressly permitted by this Agreement, (ii) as set forth in Section 4.1(b) of the Parent Disclosure Schedule, (iii) as required by applicable Law, (iv) in connection with the Asset Dispositions, or (v) with the prior written consent of the Company (which consent shall not be unreasonably withheld, delayed or conditioned), at all times during the Pre-Closing Period, Parent shall not, nor shall cause or permit the Merger Sub to:

(i) declare, accrue, set aside or pay any dividend or make any other distribution in respect of any shares of its capital stock or repurchase, redeem or otherwise reacquire any shares of its capital stock or other securities (except in connection with the payment of the exercise price and/or withholding Taxes incurred upon the exercise, settlement or vesting of any award granted under the Parent Stock Plans in accordance with the terms of such award in effect on the date of this Agreement);

(ii) sell, issue, grant, pledge or otherwise dispose of or encumber or authorize any of the foregoing with respect to: (A) any capital stock or other security of Parent (except for Parent Common Stock issued upon the valid exercise of outstanding Parent Options, Parent RSUs or Parent Warrants); (B) any option, warrant or right to acquire any capital stock or any other security other than option grants or Parent RSU grants to employees and service providers in the Ordinary Course of Business which are included in the calculation of the Company Outstanding Shares; or (C) any instrument convertible into or exchangeable for any capital stock or other security of Parent;

(iii) except as required to give effect to anything in contemplation of the Closing, amend any of its Organizational Documents, or effect or be a party to any merger, consolidation, share exchange, business combination, recapitalization, reclassification of shares, stock split, reverse stock split or similar transaction except, for the avoidance of doubt, the Contemplated Transactions;

(iv) form any Subsidiary or acquire any equity interest or other interest in any other Entity or enter into a joint venture with any other Entity;

(v) redeem, repurchase or otherwise acquire, directly or indirectly, any shares of Parent Common Stock;

(vi) (A) lend money to any Person (except for the advancement of expenses to employees and directors in the Ordinary Course of Business), (B) incur or guarantee any indebtedness for borrowed money, (C) guarantee any debt securities of others, or (D) other than the incurrence or payment of any Transaction Expenses, make any capital expenditure in excess of the specifically budgeted capital expenditure amounts set forth in Parent's operating budget delivered to the Company concurrently with the execution of this Agreement (the "***Parent Budget***");

(vii) forgive any loans to any Person, including its employees, officers, directors or Affiliates;

(viii) other than as required by applicable Law or the terms of any Parent Benefit Plan as in effect on the date of this Agreement: (A) adopt, terminate, establish or enter into any Parent Benefit Plan; (B) cause or permit any Parent Benefit Plan to be amended in any respect; (C) pay any bonus or make any profit-sharing or similar payment to, or increase the amount of the wages, salary, commissions, benefits or other compensation or remuneration payable to, any of its directors, officers or employees other than increases in base salary and annual cash bonus opportunities and payments made in the Ordinary Course of Business which do not exceed, in the aggregate the amounts specifically budgeted therefor in the Parent Budget; (D) increase the severance or change of control benefits offered to any current or new employees, directors or consultants or (E) hire, terminate or give notice of termination to any (x) officer or (y) employee;

(ix) recognize any labor union, labor organization, or similar Person except as otherwise required by applicable Law and after prior written consent of the Company which consent will not be unreasonably withheld or delayed;

(x) acquire any material asset or sell, lease or otherwise irrevocably dispose of any of its assets or properties, or grant any Encumbrance with respect to such assets or properties;

(xi) either solely or in collaboration with any third party, directly or indirectly, commence, enter, join, revive, solicit, or otherwise get engaged in, any clinical trial other than the clinical trials existing on or prior to the date of this Agreement and disclosed by Parent on Section 4.1(b)(xi) of the Parent Disclosure Schedule;

(xii) sell, assign, transfer, license, sublicense or otherwise dispose of any material Parent IP (other than pursuant to non-exclusive licenses in the Ordinary Course of Business);

(xiii) make, change or revoke any material Tax election, fail to pay any income or other material Tax as such Tax becomes due and payable, file any amendment making any material change to any Tax Return, settle or compromise any income or other material Tax liability, enter into any Tax allocation, sharing, indemnification or other similar agreement or arrangement (other than customary commercial contracts entered into in the Ordinary Course of Business the principal subject matter of which is not Taxes), request or consent to any extension or waiver of any limitation period with respect to any claim or assessment for any income or other material Taxes (other than pursuant to an extension of time to file any Tax Return granted in the Ordinary Course of Business of not more than six months), or adopt or change any material accounting method in respect of Taxes;

(xiv) enter into, materially amend or terminate any Parent Material Contract;

(xv) other than the incurrence or payment of any Transaction Expenses, make any expenditures, or discharge or satisfy any liabilities, in each case, in amounts that exceed the aggregate amount of the Parent Budget by $25,000;

(xvi) other than as required by Law or GAAP, take any action to change accounting policies or procedures;

(xvii) initiate or settle any Legal Proceeding; or

(xviii) agree, resolve or commit to do any of the foregoing.

Nothing contained in this Agreement shall give the Company, directly or indirectly, the right to control or direct the operations of Parent prior to the Effective Time. Prior to the Effective Time, Parent shall exercise, consistent with the terms and conditions of this Agreement, complete unilateral control and supervision over its business operations.

4.2 **Operation of the Company's Business**.

(a) Except as set forth on Section 4.2(a) of the Company Disclosure Schedule, as expressly permitted by this Agreement, as required by applicable Law or unless Parent shall otherwise consent in writing (which consent shall not be unreasonably withheld, delayed or conditioned), during the Pre-Closing Period: the Company shall conduct its business and operations in the Ordinary Course of Business and in compliance in all material respects with all applicable Laws and the requirements of all Contracts that constitute Company Material Contracts.

(b) Except (i) as expressly permitted by this Agreement or the Securities Purchase Agreement, (ii) as set forth in Section 4.2(b) of the Company Disclosure Schedule, (iii) as required by applicable Law or (iv) with the prior written consent of Parent (which consent shall not be unreasonably withheld, delayed or conditioned), at all times during the Pre-Closing Period, the Company shall not do any of the following:

(i) declare, accrue, set aside or pay any dividend or make any other distribution in respect of any shares of its capital stock or repurchase, redeem or otherwise reacquire any shares of its capital stock or other securities (except in connection with the payment of the exercise price and/or withholding Taxes incurred upon the exercise, settlement or vesting of any award granted under the Company Plan in accordance with the terms of such award in effect on the date of this Agreement);

(ii) sell, issue, grant, pledge or otherwise dispose of or encumber or authorize any of the foregoing with respect to: (A) any capital stock or other security of the Company (except for shares of outstanding Company Common Stock issued upon the valid exercise of Company Options); (B) any option, warrant or right to acquire any capital stock or any other security, other than option grants to employees and service providers in the Ordinary Course of Business which are included in the calculation of the Parent Outstanding Shares; or (C) any instrument convertible into or exchangeable for any capital stock or other security of the Company;

(iii) except as required to give effect to anything in contemplation of the Closing, amend any of its Organizational Documents, or effect or be a party to any merger, consolidation, share exchange, business combination, recapitalization, reclassification of shares, stock split, reverse stock split or similar transaction except, for the avoidance of doubt, in connection with the Contemplated Transactions;

(iv) acquire any equity interest or other interest in any other Entity or enter into a joint venture with any other Entity;

(v) (A) lend money to any Person (except for the advancement of expenses to employees and directors in the Ordinary Course of Business), (B) incur or guarantee any indebtedness for borrowed money, (C) guarantee any debt securities of others, or (D) make any capital expenditure, in each case, in excess of $50,000;

(vi) recognize any labor union, labor organization, or similar Person except as otherwise required by applicable Law;

(vii) make, change or revoke any material Tax election, fail to pay any income or other material Tax as such Tax becomes due and payable, file any amendment making any material change to any Tax Return, settle or compromise any income or other material Tax liability, enter into any Tax allocation, sharing, indemnification or other similar agreement or arrangement (other than customary commercial contracts entered into in the Ordinary Course of Business the principal subject matter of which is not Taxes), request or consent to any extension or waiver of any limitation period with respect to any claim or assessment for any income or other material Taxes (other than pursuant to an extension of time to file any Tax Return granted in the Ordinary Course of Business of not more than six months), or adopt or change any material accounting method in respect of Taxes;

(viii) enter into, materially amend or terminate any Company Material Contract;

(ix) other than as required by Law or GAAP, take any action to change accounting policies or procedures;

(x) initiate or settle any Legal Proceeding with an underlying value in excess of $250,000; or

(xi) agree, resolve or commit to do any of the foregoing.

(c) Nothing contained in this Agreement shall give Parent, directly or indirectly, the right to control or direct the operations of the Company prior to the Effective Time. Prior to the Effective Time, the Company shall exercise, consistent with the terms and conditions of this Agreement, complete unilateral control and supervision over its business operations.

4.3 **Access and Investigation**. Subject to the terms of the Confidentiality Agreement, which the Parties agree will continue in full force following the date of this Agreement, during the Pre-Closing Period, upon reasonable notice, Parent, on the one hand, and the Company, on the other hand, shall and shall use commercially reasonable efforts to cause such Party's Representatives to: (a) provide the other Party and such other Party's Representatives with reasonable access during normal business hours to such Party's Representatives, personnel, property and assets and to all existing books, records, Tax Returns, work papers and other documents and information relating to such Party and its Subsidiaries; (b) provide the other Party and such other Party's Representatives with such copies of the existing books, records, Tax Returns, work papers, product data, and other documents and information relating to such Party and its Subsidiaries, and with such additional financial, operating and other data and information regarding such Party and its Subsidiaries as the other Party may reasonably request; (c) permit the other Party's officers and other employees to meet, upon reasonable notice and during normal business hours, with the chief financial officer and other officers and managers of such Party responsible for such Party's financial statements and the internal controls of such Party to discuss such matters as the other Party may deem necessary or appropriate and; (d) make available to the other Party copies of unaudited financial statements, material operating and financial reports prepared for senior management or the board of directors of such Party, and any material notice, report or other document filed with or sent to or received from any Governmental Body in connection with the Contemplated Transactions. Any investigation conducted by either Parent or the Company pursuant to this Section 4.3 shall be conducted in such manner as not to interfere unreasonably with the conduct of the business of the other Party.

Notwithstanding the foregoing, any Party may restrict the foregoing access to the extent that any Law applicable to such Party requires such Party to restrict or prohibit access to any such properties or information or as may be necessary to preserve the attorney-client privilege under any circumstances in which such privilege may be jeopardized by such disclosure or access.

4.4 **Parent Non-Solicitation**.

(a) Parent agrees that, during the Pre-Closing Period, it shall not, and shall not authorize any of its Representatives to, directly or indirectly, other than as necessary to communicate, discuss, negotiate or consummate the Asset Dispositions: (i) solicit, initiate or knowingly encourage, induce or facilitate the communication, making, submission or announcement of any Acquisition Proposal or Acquisition Inquiry or take any action that could reasonably be expected to lead to an Acquisition Proposal or Acquisition Inquiry; (ii) furnish any non-public information regarding Parent to any Person in connection with or in response to an Acquisition Proposal or Acquisition Inquiry; (iii) engage in discussions (other than to inform any Person of the existence of the provisions in this Section 4.4) or negotiations with any Person with respect to any Acquisition Proposal or Acquisition Inquiry; (iv) approve, endorse or recommend any Acquisition Proposal (subject to Section 5.3); (v) execute or enter into any letter of intent or any Contract contemplating or otherwise relating to any Acquisition Transaction (other than a confidentiality agreement permitted under this Section 4.4(a)); or (vi) publicly propose to do any of the foregoing; *provided*, *however*, that, notwithstanding anything contained in this Section 4.4 and subject to compliance with this Section 4.4, prior to obtaining the Required Parent Stockholder Vote, Parent may furnish non-public information regarding Parent to, and enter into discussions or negotiations with, any Person in response to a *bona fide* Acquisition Proposal by such Person, which the Parent Board determines in good faith, after consultation with Parent's outside financial advisors and outside legal counsel, constitutes, or could be reasonably likely to result in, a Superior Offer (and is not withdrawn) if: (A) neither Parent nor any of its Representatives shall have breached this Section 4.4 in any material respect, (B) the Parent Board concludes in good faith based on the advice of outside legal counsel, that the failure to take such action would be reasonably likely to be inconsistent with the fiduciary duties of the Parent Board under applicable Law; (C) Parent receives from such Person an executed confidentiality agreement containing provisions, in the aggregate, at least as favorable to Parent as those contained in the Confidentiality Agreement; and (D) substantially contemporaneously with furnishing any such nonpublic information to such Person, Parent furnishes such nonpublic information to the Company (to the extent such information has not been previously furnished by Parent to the Company). Without limiting the generality of the foregoing, Parent acknowledges and agrees that, in the event any Representative of Parent (whether or not such Representative is purporting to act on behalf of Parent) takes any action that, if taken by Parent, would constitute a breach of this Section 4.4, the taking of such action by such Representative shall be deemed to constitute a breach of this Section 4.4 by Parent for purposes of this Agreement.

(b) If Parent or any Representative of Parent receives an Acquisition Proposal or Acquisition Inquiry at any time during the Pre-Closing Period, then Parent shall promptly (and in no event later than one Business Day after Parent becomes aware of such Acquisition Proposal or Acquisition Inquiry) advise the Company orally and in writing of such Acquisition Proposal or Acquisition Inquiry (including the identity of the Person making or submitting such Acquisition Proposal or Acquisition Inquiry, and the material terms thereof) and provide a copy of all material written materials relating to such Acquisition Proposal or Acquisition Inquiry. Parent shall keep the Company reasonably informed on a current basis with respect to the status and material terms of any such Acquisition Proposal or Acquisition Inquiry and any material modification thereto.

(c) Parent shall immediately cease and cause to be terminated any existing discussions, negotiations and communications with any Person that relate to any Acquisition Proposal or Acquisition Inquiry as of the date of this Agreement and request the destruction or return of any nonpublic information of Parent provided to such Person as soon as practicable after the date of this Agreement.

4.5 **Company Non-Solicitation**.

(a) The Company agrees that, during the Pre-Closing Period, it shall not, nor shall it authorize any of its Representatives to, directly or indirectly: (i) solicit, initiate or knowingly encourage, induce or facilitate the communication, making, submission or announcement of any Acquisition Proposal or Acquisition Inquiry or take any action that could reasonably be expected to lead to an Acquisition Proposal or Acquisition Inquiry; (ii) furnish any non-public information regarding the Company to any Person in connection with or in response to an Acquisition Proposal or Acquisition Inquiry; (iii) engage in discussions (other than to inform any Person of the existence of the provisions in this Section 4.5) or negotiations with any Person with respect to any Acquisition Proposal or Acquisition Inquiry; (iv) approve, endorse or recommend any Acquisition Proposal; (v) execute or enter into any letter of intent or any Contract contemplating or otherwise relating to any Acquisition Transaction; or (vi) publicly propose to do any of the foregoing *provided, however*, that, notwithstanding anything contained in this Section 4.5 and subject to compliance with this Section 4.5, prior to the delivery by the Company of the Company Stockholder Written Consent constituting the Required Company Stockholder Vote, the Company may furnish non-public information regarding the Company to, and enter into discussions or negotiations with, any Person in response to a bona fide Acquisition Proposal by such Person, which the Company Board determines in good faith, after consultation with the Company's outside financial advisors and outside legal counsel, constitutes, or could be reasonably likely to result in, a Superior Offer (and is not withdrawn) if: (A) neither the Company nor any of its Representatives shall have breached this Section 4.5 in any material respect or otherwise in connection with such Acquisition Proposal, (B) the Company Board concludes in good faith based on the advice of outside legal counsel, that the failure to take such action would be reasonably likely to be inconsistent with the fiduciary duties of the Company Board under applicable Law; (C) the Company receives from such Person an executed confidentiality agreement containing provisions, in the aggregate, at least as favorable to the Company as those contained in the Confidentiality Agreement; and (D) substantially contemporaneously with furnishing any such nonpublic information to such Person, the Company furnishes such nonpublic information to Parent (to the extent such information has not been previously furnished by the Company to Parent). Without limiting the generality of the foregoing, the Company acknowledges and agrees that, in the event any Representative of the Company (whether or not such Representative is purporting to act on behalf of the Company) takes any action that, if taken by the Company, would constitute a breach of this Section 4.5, the taking of such action by such Representative shall be deemed to constitute a breach of this Section 4.5 by the Company for purposes of this Agreement.

(b) If the Company or any Representative of the Company receives an Acquisition Proposal or Acquisition Inquiry at any time during the Pre-Closing Period, then the Company shall promptly (and in no event later than one Business Day after the Company becomes aware of such Acquisition Proposal or Acquisition Inquiry) advise Parent orally and in writing of such Acquisition Proposal or Acquisition Inquiry (including the identity of the Person making or submitting such Acquisition Proposal or Acquisition Inquiry, and the material terms thereof). The Company shall keep Parent reasonably informed with respect to the status and material terms of any such Acquisition Proposal or Acquisition Inquiry and any material modification thereto.

(c) The Company shall immediately cease and cause to be terminated any existing discussions, negotiations and communications with any Person that relate to any Acquisition Proposal or Acquisition Inquiry that has not already been terminated as of the date of this Agreement and request the destruction or return of any nonpublic information of the Company provided to such Person as soon as practicable after the date of this Agreement.

4.6 **Notification of Certain Matters**.

(a) During the Pre-Closing Period the Company shall promptly notify Parent (and, if in writing, furnish copies of) if any of the following occurs: (i) any notice or other communication is received from any Person alleging that the Consent of such Person is or may be required in connection with any of the Contemplated Transactions; (ii) any Legal Proceeding against or involving or otherwise affecting the Company is

commenced, or, to the Knowledge of the Company, threatened against the Company or, to the Knowledge of the Company, any director or officer of the Company; (iii) the Company becomes aware of any inaccuracy in any representation or warranty made by it in this Agreement; or (iv) the failure of the Company to comply with any covenant or obligation of the Company; in the case of (iii) and (iv) that could reasonably be expected to make the timely satisfaction of any of the conditions set forth in Sections 6 or 7, as applicable, impossible or materially less likely. No notification given to Parent pursuant to this Section 4.6(a) shall change, limit or otherwise affect any of the representations, warranties, covenants or obligations of the Company contained in this Agreement or the Company Disclosure Schedule for purposes of Sections 6 and 7, as applicable.

(b) During the Pre-Closing Period Parent shall promptly notify the Company (and, if in writing, furnish copies of) if any of the following occurs: (i) any notice or other communication is received from any Person alleging that the Consent of such Person is or may be required in connection with any of the Contemplated Transactions; (ii) any Legal Proceeding against or involving or otherwise affecting Parent is commenced, or, to the Knowledge of Parent, threatened against Parent or, to the Knowledge of Parent, any director or officer of Parent; (iii) Parent becomes aware of any inaccuracy in any representation or warranty made by it in this Agreement; or (iv) the failure of Parent to comply with any covenant or obligation of Parent or Merger Sub; in the case of (iii) and (iv) that could reasonably be expected to make the timely satisfaction of any of the conditions set forth in Section 6 or Section 8, as applicable, impossible or materially less likely. No notification given to the Company pursuant to this Section 4.6(b) shall change, limit or otherwise affect any of the representations, warranties, covenants or obligations of Parent contained in this Agreement or the Parent Disclosure Schedule for purposes of Sections 6 and 8, as applicable.

4.7 **Potentially Transferable Assets**. Parent shall be entitled, but under no obligation, to sell, transfer, license, assign or otherwise divest the Potentially Transferable Assets in a transaction the terms of which are negotiated and consummated on an arm's length basis, including, but not limited to, the transactions contemplated by the term-sheets set forth on Section 4.7 of the Parent Disclosure Schedule (each an "***Asset Disposition***" and collectively, the "***Asset Dispositions***"); *provided, however,* that any such Asset Disposition, including those described on Section 4.7 of the Parent Disclosure Schedule, shall require the written consent of the Company if such Asset Disposition would create any material post-disposition Liabilities for Parent following the Closing; *provided, further, however*, that Parent shall notify the Company at least five (5) Business Days prior to entering into any agreement with respect to any Asset Disposition, provide copies of all written agreements or documents with respect to such sale and provide the Company with an opportunity to provide comments to such documents, which comments shall be considered by Parent in good faith. Each Party acknowledges that Parent may not be successful in completing, or may determine not to proceed, with any Asset Dispositions. For clarity, if the Asset Dispositions are not completed prior to the Effective Time, the Potentially Transferable Assets shall be retained by Parent and the value of such Potentially Transferable Assets shall have no impact on the calculation of the Exchange Ratio.

Section 5. ADDITIONAL AGREEMENTS OF THE PARTIES

5.1 **Registration Statement; Proxy Statement**.

(a) As promptly as practicable after the date of this Agreement, the Parties shall prepare, and Parent shall cause to be filed with the SEC, the Registration Statement, in which the Proxy Statement will be included as a prospectus. Parent covenants and agrees that the Registration Statement will not, at the time that the Proxy Statement or any amendments or supplements thereto is filed with the SEC or is first mailed to Parent's stockholders contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary in order to make the statements made therein, in light of the circumstances under which they were made, not misleading. The Company covenants and agrees that the information provided by the Company to Parent for inclusion in the Registration Statement (including the Company Financials) will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary in order to make such information not misleading. Notwithstanding the foregoing, Parent makes no

covenant, representation or warranty with respect to statements made in the Registration Statement (and the letter to stockholders, notice of meeting and form of proxy included therewith), if any, based on information provided by the Company or any of its Representatives specifically for inclusion therein and the Company makes no covenant, representation or warranty with respect to statements made in the Registration Statement (and the letter to stockholders, notice of meeting and form of proxy included therewith), if any, other than with respect to the information provided by the Company or any of its Representatives for inclusion therein. The Company and its legal counsel shall be given reasonable opportunity to review and comment on the Registration Statement, including all amendments and supplements thereto, prior to the filing thereof with the SEC, and on the response to any comments of the SEC on the Registration Statement, prior to the filing thereof with the SEC. Parent shall use commercially reasonable efforts to cause the Registration Statement and the Proxy Statement to comply with the applicable rules and regulations promulgated by the SEC, to respond promptly to any comments of the SEC or its staff and to have the Registration Statement declared effective under the Securities Act as promptly as practicable after it is filed with the SEC. Parent shall use commercially reasonable efforts to cause the Proxy Statement to be mailed to Parent's stockholders as promptly as practicable after the Registration Statement is declared effective under the Securities Act. Each Party shall promptly furnish to the other Party all information concerning such Party and such Party's Affiliates and such Party's stockholders that may be required or reasonably requested in connection with any action contemplated by this Section 5.1. If Parent, Merger Sub or the Company become aware of any event or information that, pursuant to the Securities Act or the Exchange Act, should be disclosed in an amendment or supplement to the Registration Statement or Proxy Statement, as the case may be, then such Party, as the case may be, shall promptly inform the other Parties thereof and shall cooperate with such other Parties in filing such amendment or supplement with the SEC and, if appropriate, in mailing such amendment or supplement to Parent's stockholders. No filing of, or amendment or supplement to, the Registration Statement will be made by Parent, and no filing of, or amendment or supplement to, the Proxy Statement will be made by Parent, in each case, without the prior written consent of the Company, which shall not be unreasonably withheld, conditioned or delayed. The Company and Parent shall each use commercially reasonable efforts to cause the Registration Statement and the Proxy Statement to comply with applicable federal and state securities laws requirements.

(b) The Parties shall reasonably cooperate with each other and provide, and require their respective Representatives to provide, the other Party and its Representatives, with all true, correct and complete information regarding such Party or its Subsidiaries that is required by Law to be included in the Registration Statement or reasonably requested by the other Party to be included in the Registration Statement.

(c) Following the final determination of the Parent Net Cash of the Anticipated Closing Date in accordance with Section 1.6 (either as a result of the mutual agreement of the parties or the determination of the Accounting Firm), Parent and the Company shall mutually agree on the form and substance of a press release setting forth the anticipated Exchange Ratio as of the Anticipated Closing Date, which the Parties shall cause to be publicly disclosed (and which Parent shall file on Form 8-K) as early as practicable prior to the Parent Stockholder Meeting (and in no event shall this delay or cause the postponement of such meeting under any applicable law).

(d) Prior to filing of the Registration Statement, the Parties shall use their respective reasonable best efforts to execute and deliver to Cooley LLP ("***Cooley***") and to Wilson Sonsini Goodrich & Rosati LLP ("***Wilson Sonsini***") the applicable "Tax Representation Letters" referenced in Section 5.11(c). Following the delivery of the Tax Representation Letters pursuant to the preceding sentence, Parent and the Company shall use their respective reasonable best efforts to cause Cooley to deliver to Parent, and to cause Wilson Sonsini to deliver to the Company, a Tax opinion satisfying the requirements of Item 601 of Regulation S-K promulgated under the Securities Act. In rendering such opinions, Cooley and Wilson Sonsini shall be entitled to rely on the Tax Representation Letters referred to in this Section 5.1(d) and Section 5.11(c).

5.2 **Company Information Statement; Stockholder Written Consent.**

(a) Promptly after the Registration Statement shall have been declared effective under the Securities Act, and in any event no later than three Business Days thereafter, the Company shall prepare, with the cooperation of Parent, and cause to be mailed to its stockholders an information statement, which shall include a copy of the Proxy Statement (the "***Information Statement***") to solicit the approval by written consent from the Company Signatories, including but not limited to the Company stockholders sufficient for the Required Company Stockholder Vote in lieu of a meeting pursuant to Section 228 of the DGCL, for purposes of (within three Business Days after the Registration Statement shall have been declared effective) (i) adopting and approving this Agreement and the Contemplated Transactions, (ii) acknowledging that the approval given thereby is irrevocable and that such stockholder is aware of its rights to demand appraisal for its shares pursuant to Section 262 of the DGCL and Chapter 13 of California Law, a true and correct copy of which will be attached thereto, and that such stockholder has received and read a copy of Section 262 of the DGCL and Chapter 13 of California Law, and (iii) acknowledging that by its approval of the Merger it is not entitled to appraisal rights with respect to its shares in connection with the Merger and thereby waives any rights to receive payment of the fair value of its capital stock under the DGCL or California Law (collectively, the "***Company Stockholder Matters***"). Under no circumstances shall the Company assert that any other approval or consent is necessary by its stockholders to approve this Agreement and the Contemplated Transactions. Each of Parent and Company agree to provide promptly to the other such information concerning its business and financial statements and affairs as, in the reasonable judgment of the providing Party or its counsel, may be required or appropriate for inclusion in the Information Statement, or in any amendments or supplements thereto, and to cause its counsel and auditors to cooperate with the other's counsel and auditors in the preparation of the Information Statement. Company shall not include in the Information Statement any information with respect to Parent or its Affiliates, the form and content of which information shall not have been approved by Parent prior to such inclusion (such approval not to be unreasonably withheld, conditioned or delayed).

(b) The Company covenants and agrees that the Information Statement, including any pro forma financial statements included therein (and the letter to stockholders and form of Company Stockholder Written Consent included therewith), will not, at the time that the Information Statement or any amendment or supplement thereto is first mailed to the stockholders of the Company, at the time of receipt of the Required Company Stockholder Vote and at the Effective Time, contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary in order to make the statements made therein, in light of the circumstances under which they were made, not misleading. Notwithstanding the foregoing, the Company makes no covenant, representation or warranty with respect to statements made in the Information Statement (and the letter to the stockholders and form of Company Stockholder Written Consent included therewith), if any, based on information furnished in writing by Parent specifically for inclusion therein. Each of the Parties shall use commercially reasonable efforts to cause the Information Statement to comply with the applicable rules and regulations promulgated by the SEC in all material respects.

(c) Promptly following receipt of the Required Company Stockholder Vote, the Company shall prepare and mail a notice (the "***Stockholder Notice***") to every stockholder of the Company that did not execute the Company Stockholder Written Consent. The Stockholder Notice shall (i) be a statement to the effect that the Company Board determined that the Merger is advisable in accordance with Section 251(b) of the DGCL and in the best interests of the stockholders of the Company and approved and adopted this Agreement, the Merger and the other Contemplated Transactions, (ii) provide the stockholders of the Company to whom it is sent with notice of the actions taken in the Company Stockholder Written Consent, including the adoption and approval of this Agreement, the Merger and the other Contemplated Transactions in accordance with Section 228(e) of the DGCL and the certificate of incorporation and bylaws of the Company and (iii) include a description of the appraisal rights of the Company's stockholders available under the DGCL and California Law, along with such other information as is required thereunder and pursuant to applicable Law. All materials (including any amendments thereto) submitted to the stockholders of the Company in accordance with this Section 5.2(c) shall be subject to Parent's advance review and reasonable approval.

(d) The Company agrees that: (i) the Company Board shall recommend that the Company's stockholders vote to approve the Company Stockholder Matters and shall use reasonable best efforts to solicit such approval from each of the Company Signatories within the time set forth in Section 5.2(a) (the recommendation of the Company Board that the Company's stockholders vote to adopt and approve this Agreement being referred to as the "***Company Board Recommendation***"); and (ii) the Company Board Recommendation shall not be withdrawn or modified (and the Company Board shall not publicly propose to withdraw or modify the Company Board Recommendation) in a manner adverse to Parent, and no resolution by the Company Board or any committee thereof to withdraw or modify the Company Board Recommendation in a manner adverse to Parent or to adopt, approve or recommend (or publicly propose to adopt, approve or recommend) any Acquisition Proposal shall be adopted or proposed (the actions set forth in the foregoing clause (ii), collectively, a "***Company Board Adverse Recommendation Change***").

(e) Notwithstanding anything to the contrary contained in this Agreement, if at any time prior to the delivery by the Company of the Company Stockholder Written Consent constituting the Required Company Stockholder Vote:

(i) The Company has received a written Acquisition Proposal (which Acquisition Proposal did not arise out of a material breach of Section 4.5) from any Person that has not been withdrawn and after consultation with outside legal counsel, the Company Board shall have determined, in good faith, that such Acquisition Proposal is a Superior Offer, the Company Board may make a Company Board Adverse Recommendation Change, if and only if all of the following apply: (A) the Company Board determines in good faith, after consultation with the company's outside legal counsel, that the failure to do so would be inconsistent with the fiduciary duties of the Company Board to Company's stockholders under applicable Law; (B) the Company shall have given Parent prior written notice of its intention to consider making a Company Board Adverse Recommendation Change at least three Business Days prior to making any such Company Board Adverse Recommendation Change (a "***Company Determination Notice***") (which notice shall not constitute a Company Board Adverse Recommendation Change); and (C) (1) the Company shall have provided to Parent a summary of the material terms and conditions of the Acquisition Proposal in accordance with Section4.5(b), (2) the Company shall have given Parent five Business Days after the Company Determination Notice to propose revisions to the terms of this Agreement or make another proposal and shall have made its Representatives reasonably available to negotiate in good faith with Parent (to the extent Parent desires to negotiate) with respect to such proposed revisions or other proposal, if any, and (3) after considering the results of any such negotiations and giving effect to the proposals made by Parent, if any, after consultation with outside legal counsel, the Company Board shall have determined, in good faith, that such Acquisition Proposal is a Superior Offer and that the failure to make the Company Board Adverse Recommendation Change would be inconsistent with the fiduciary duties of the Company Board to Company's stockholders under applicable Law. For the avoidance of doubt, the provisions of this Section 5.2(e)(i) shall also apply to any material change to the facts and circumstances relating to such Acquisition Proposal and require a new Company Determination Notice, except that the references to three Business Days shall be deemed to be two Business Days.

(ii) other than in connection with an Acquisition Proposal, the Company Board may make a Company Board Adverse Recommendation Change in response to a Company Change in Circumstance, if and only if: (A) the Company Board determines in good faith, after consultation with the Company's outside legal counsel, that the failure to do so would be inconsistent with the fiduciary duties of the Company Board to the Company's stockholders under applicable Law; (B) the Company shall have given Parent a Company Determination Notice at least three Business Days prior to making any such Company Board Adverse Recommendation Change; and (C) (1) the Company shall have specified the Company Change in Circumstance in reasonable detail, (2) the Company shall have given Parent the three Business Days after the Company Determination Notice to propose revisions to the terms of this Agreement or make another proposal, and shall have made its Representatives reasonably available to negotiate in good faith with Parent (to the extent Parent desires to do so) with respect to such proposed revisions or other proposal, if any, and (3) after considering the results of any such negotiations and giving effect to the proposals made by Parent, if any, after consultation with

outside legal counsel, the Company Board shall have determined, in good faith, that the failure to make the Company Board Adverse Recommendation Change in response to such Company Change in Circumstance would be inconsistent with the fiduciary duties of the Company Board to Company's stockholders under applicable Law. For the avoidance of doubt, the provisions of this Section 5.2(f)(ii) shall also apply to any material change to the facts and circumstances relating to such Company Change in Circumstance and require a new Company Determination Notice, except that the references to three Business Days shall be deemed to be two Business Days.

5.3 **Parent Stockholders' Meeting**.

(a) Promptly after the Registration Statement has been declared effective by the SEC under the Securities Act, Parent shall take all action necessary under applicable Law to call, give notice of and hold a meeting of the holders of Parent Common Stock for the purpose of seeking approval of:

(i) the amendment of Parent's certificate of incorporation to effect the Nasdaq Reverse Split;

(ii) unless mutually agreed between the Parties otherwise, the consummation of the Asset Disposition pursuant to Section 4.7 of this Agreement; and

(iii) the issuance of Parent Common Stock that represent (or are convertible into) more than twenty percent (20%) of the shares of Parent Common Stock outstanding immediately prior to the Merger to the Company stockholders in connection with the Contemplated Transactions and the change of control of Parent resulting from the Contemplated Transactions, in each case pursuant to the Nasdaq rules;

(the matters contemplated by the clauses 5.3(a)(i) – (iii) are referred to as the "***Parent Stockholder Matters***," and such meeting, the "***Parent Stockholders' Meeting***").

(b) The Parent Stockholders' Meeting shall be held as promptly as practicable after the Registration Statement is declared effective under the Securities Act. Parent shall take reasonable measures to ensure that all proxies solicited in connection with the Parent Stockholders' Meeting are solicited in compliance with all applicable Law. Notwithstanding anything to the contrary contained herein, if on the date of the Parent Stockholders' Meeting, or a date preceding the date on which the Parent Stockholders' Meeting is scheduled, Parent reasonably believes that (i) it will not receive proxies sufficient to obtain the Required Parent Stockholder Vote, whether or not a quorum would be present or (ii) it will not have sufficient shares of Parent Common Stock represented (whether in person or by proxy) to constitute a quorum necessary to conduct the business of the Parent Stockholders' Meeting, Parent may postpone or adjourn the Parent Stockholders' Meeting as long as the date of the Parent Stockholders' Meeting is not postponed or adjourned more than an aggregate of 60 calendar days in connection with any postponements or adjournments; *provided, however,* that more than one such postponement or adjournment shall not be permitted without the Company's prior written consent.

(c) Parent agrees that, subject to Section 5.3(d): (i) the Parent Board shall recommend that the holders of Parent Common Stock vote to approve the Parent Stockholder Matters and Parent shall use commercially reasonable efforts to solicit such approval, (ii) the Proxy Statement shall include a statement to the effect that the Parent Board recommends that Parent's stockholders vote to approve the Parent Stockholder Matters (the recommendation of the Parent Board with respect to the Parent Stockholder Matters being referred to as the "***Parent Board Recommendation***"); and (iii) the Parent Board Recommendation shall not be withheld, amended, withdrawn or modified (and the Parent Board shall not resolve or publicly propose or agree to withhold, amend, withdraw or modify the Parent Board Recommendation) in a manner adverse to the Company (the actions set forth in the foregoing clause (iii), collectively, a "***Parent Board Adverse Recommendation Change***").

(d) Notwithstanding anything to the contrary contained in this Agreement, if at any time prior to the approval of the Parent Stockholder Matters at the Parent Stockholder's Meeting by the Required Parent Stockholder Vote:

(i) if Parent has received a written Acquisition Proposal (which Acquisition Proposal did not arise out of a material breach of Section 4.4) from any Person that has not been withdrawn and after consultation with outside legal counsel, the Parent Board shall have determined, in good faith, that such Acquisition Proposal is a Superior Offer, (x) the Parent Board may make a Parent Board Adverse Recommendation Change or (y) Parent may terminate this Agreement pursuant to Section 9.1(j) to enter into a Permitted Alternative Agreement with respect to such Superior Offer, if and only if all of the following apply: (A) the Parent Board determines in good faith, after consultation with Parent's outside legal counsel, that the failure to do so would be inconsistent with the fiduciary duties of the Parent Board to Parent's stockholders under applicable Law; (B) Parent shall have given the Company prior written notice of its intention to consider making a Parent Board Adverse Recommendation Change or terminate this Agreement pursuant to Section 9.1(f) at least three Business Days prior to making any such Parent Board Adverse Recommendation Change or termination (a "***Parent Determination Notice***") (which notice shall not constitute a Parent Board Adverse Recommendation Change); and (C) (1) Parent shall have provided to the Company a summary of the material terms and conditions of the Acquisition Proposal in accordance with Section 4.4(b), (2) Parent shall have given the Company four Business Days after the Parent Determination Notice to propose revisions to the terms of this Agreement or make another proposal and shall have made its Representatives reasonably available to negotiate in good faith with the Company (to the extent the Company desires to negotiate) with respect to such proposed revisions or other proposal, if any, and (3) after considering the results of any such negotiations and giving effect to the proposals made by the Company, if any, after consultation with outside legal counsel, the Parent Board shall have determined, in good faith, that such Acquisition Proposal is a Superior Offer and that the failure to make the Parent Board Adverse Recommendation Change would be inconsistent with the fiduciary duties of the Parent Board to Parent's stockholders under applicable Law. For the avoidance of doubt, the provisions of this Section 5.3(d)(i) shall also apply to any material change to the facts and circumstances relating to such Acquisition Proposal and require a new Parent Determination Notice, except that the references to three Business Days shall be deemed to be two Business Days.

(ii) other than in connection with an Acquisition Proposal, the Parent Board may make a Parent Board Adverse Recommendation Change in response to a Parent Change in Circumstance, if and only if: (A) the Parent Board determines in good faith, after consultation with Parent's outside legal counsel, that the failure to do so would be inconsistent with the fiduciary duties of the Parent Board to Parent's stockholders under applicable Law; (B) Parent shall have given the Company a Parent Determination Notice at least three Business Days prior to making any such Parent Board Adverse Recommendation Change; and (C) (1) Parent shall have specified the Parent Change in Circumstance in reasonable detail, (2) Parent shall have given the Company the three Business Days after the Parent Determination Notice to propose revisions to the terms of this Agreement or make another proposal, and shall have made its Representatives reasonably available to negotiate in good faith with the Company (to the extent the Company desires to do so) with respect to such proposed revisions or other proposal, if any, and (3) after considering the results of any such negotiations and giving effect to the proposals made by the Company, if any, after consultation with outside legal counsel, the Parent Board shall have determined, in good faith, that the failure to make the Parent Board Adverse Recommendation Change in response to such Parent Change in Circumstance or terminate this Agreement pursuant to Section 9.1(f) would be inconsistent with the fiduciary duties of the Parent Board to Parent's stockholders under applicable Law. For the avoidance of doubt, the provisions of this Section 5.3(d)(ii) shall also apply to any material change to the facts and circumstances relating to such Parent Change in Circumstance and require a new Parent Determination Notice, except that the references to three Business Days shall be deemed to be two Business Days.

(e) Nothing contained in this Agreement shall prohibit Parent or the Parent Board from (i) complying with Rules 14d-9 and 14e-2(a) promulgated under the Exchange Act, (ii) issuing a "stop, look and listen" communication or similar communication of the type contemplated by Section 14d-9(f) under the Exchange Act or (iii) otherwise making any disclosure to Parent's stockholders; *provided however*, that in the case of the foregoing clause (iii) the Parent Board determines in good faith, after consultation with its outside legal counsel, that failure to make such disclosure could be reasonably likely to be inconsistent with applicable Law, including its fiduciary duties under applicable Law.

5.4 **Regulatory Approvals**. Each Party shall use reasonable best efforts to file or otherwise submit, as soon as practicable after the date of this Agreement, all applications, notices, reports, filings and other documents reasonably required to be filed by such Party with or otherwise submitted by such Party to any Governmental Body with respect to the Contemplated Transactions, and to submit promptly any additional information requested by any such Governmental Body.

5.5 **Company Options**

(a) At the Effective Time, each Company Option that is outstanding and unexercised immediately prior to the Effective Time under the Company Plan, whether or not vested, shall be converted into and become an option to purchase Parent Common Stock, and Parent shall assume the Company Plan and each such Company Option in accordance with the terms (as in effect as of the date of this Agreement) of the Company Plan and the terms of the stock option agreement by which such Company Option is evidenced (but with changes to such documents as Parent and the Company mutually agree are appropriate to reflect the assumption of the Company Options by Parent to purchase shares of Parent Common Stock). All rights with respect to Company Common Stock under Company Options assumed by Parent shall thereupon be converted into rights with respect to Parent Common Stock. Accordingly, from and after the Effective Time: (i) each Company Option assumed by Parent may be exercised solely for shares of Parent Common Stock; (ii) the number of shares of Parent Common Stock subject to each Company Option assumed by Parent shall be determined by multiplying (A) the number of shares of Company Common Stock that were subject to such Company Option, as in effect immediately prior to the Effective Time, by (B) the Exchange Ratio, and rounding the resulting number down to the nearest whole number of shares of Parent Common Stock; (iii) the per share exercise price for the Parent Common Stock issuable upon exercise of each Company Option assumed by Parent shall be determined by dividing (A) the per share exercise price of Company Common Stock subject to such Company Option, as in effect immediately prior to the Effective Time, by (B) the Exchange Ratio and rounding the resulting exercise price up to the nearest whole cent; and (iv) any restriction on the exercise of any Company Option assumed by Parent shall continue in full force and effect and the term, exercisability, vesting schedule, accelerated vesting provisions, and any other provisions of such Company Option shall otherwise remain unchanged; *provided, however*, that the Parent Board or a committee thereof shall succeed to the authority and responsibility of the Company Board or any committee thereof with respect to each Company Option assumed by Parent. Each Company Option so assumed by Parent shall qualify following the Effective Time as an incentive stock option as defined in Section 422 of the Code to the extent permitted under Section 422 of the Code and to the extent such Company Option qualified as an incentive stock option prior to the Effective Time, and, further, the assumption of such Company Options pursuant to this Section 5.5(a) shall be effected in a manner that satisfies the requirements of Sections 409A and 424(a) of the Code and the Treasury Regulations promulgated thereunder, and this Section 5.5(a) will be construed consistent with this intent.

(b) Parent shall file with the SEC, promptly, but no later than ten (10) calendar days after the Effective Time, a registration statement on Form S-8 (or any successor form), if available for use by Parent, relating to the shares of Parent Common Stock issuable with respect to Company Options assumed by Parent in accordance with Section 5.5(a).

5.6 **Employee Benefits**

(a) For purposes of vesting, eligibility to participate, and level of benefits under the benefit plans, programs, contracts or arrangements of Parent or any of its Subsidiaries (including, following the Closing, the Company) providing benefits to any Continuing Employee after the Closing (the "***Post-Closing Plans***"), each employee who continues to be employed by Parent, the Company or any of their respective Subsidiaries immediately following the Closing ("***Continuing Employees***") shall be credited with his or her years of service with Parent, the Company or any of their respective Subsidiaries and their respective predecessors; *provided* that the foregoing shall not apply to the extent that its application would result in a duplication of benefits. In addition, and without limiting the generality of the foregoing, for purposes of each Post-Closing Plan providing medical, dental, pharmaceutical and/or vision benefits to a Continuing Employee, Parent shall cause all pre-existing condition exclusions and actively-at-work requirements of such Post-Closing Plan to be waived for such Continuing Employee and his or her covered dependents to the extent and unless such conditions would have been waived or satisfied under the employee benefit plan whose coverage is being replaced under the Post-Closing Plan, and Parent shall use commercially reasonable efforts to cause any eligible expenses incurred by a Continuing Employee and his or her covered dependents during the portion of such plan year in which coverage is replaced with coverage under a Post-Closing Plan to be taken into account under such Post-Closing Plan with respect to the plan year in which participation in such Post-Closing Plan begins for purposes of satisfying all deductible, coinsurance and maximum out-of-pocket requirements applicable to such Continuing Employee and his or her covered dependents for such plan year as if such amounts had been paid in accordance with such Post-Closing Plan.

(b) The provisions of this Section 5.6 are for the sole benefit of Parent and the Company and no provision of this Agreement shall (i) create any third-party beneficiary or other rights in any Person, including rights in respect of any benefits that may be provided, directly or indirectly, under any Company Benefit Plan, Parent Benefit Plan or Post-Closing Plan or rights to continued employment or service with the Company or Parent (or any Subsidiary thereof), (ii) be construed as an amendment, waiver or creation of or limitation on the ability to terminate any Company Benefit Plan, Parent Benefit Plan or Post-Closing Plan, or (iii) limit the ability of Parent to terminate the employment of any Continuing Employee.

5.7 **Indemnification of Officers and Directors**.

(a) From the Effective Time through the sixth anniversary of the date on which the Effective Time occurs, each of Parent and the Surviving Corporation, jointly and severally, shall indemnify and hold harmless each person who is now, or has been at any time prior to the date hereof, or who becomes prior to the Effective Time, a director, officer, fiduciary or agent of Parent or the Company and their respective Subsidiaries, respectively (the "***D&O Indemnified Parties***"), against all claims, losses, liabilities, damages, judgments, fines and reasonable fees, costs and expenses, including attorneys' fees and disbursements (collectively, "***Costs***"), incurred in connection with any claim, action, suit, proceeding or investigation, whether civil, criminal, administrative or investigative, arising out of or pertaining to the fact that the D&O Indemnified Party is or was a director, officer, fiduciary or agent of Parent or of the Company, whether asserted or claimed prior to, at or after the Effective Time, in each case, to the fullest extent permitted under applicable Law. Each D&O Indemnified Party will be entitled to advancement of expenses incurred in the defense of any such claim, action, suit, proceeding or investigation from each of Parent and the Surviving Corporation, jointly and severally, upon receipt by Parent or the Surviving Corporation from the D&O Indemnified Party of a request therefor; *provided* that any such person to whom expenses are advanced provides an undertaking to Parent, to the extent then required by the DGCL, to repay such advances if it is ultimately determined that such person is not entitled to indemnification.

(b) The provisions of the certificate of incorporation and bylaws of Parent with respect to indemnification, advancement of expenses and exculpation of present and former directors and officers of Parent that are presently set forth in the certificate of incorporation and bylaws of Parent shall not be amended, modified

or repealed for a period of six years from the Effective Time in a manner that would adversely affect the rights thereunder of individuals who, at or prior to the Effective Time, were officers or directors of Parent. The certificate of incorporation and bylaws of the Surviving Corporation shall contain, and Parent shall cause the certificate of incorporation and bylaws of the Surviving Corporation to so contain, provisions no less favorable with respect to indemnification, advancement of expenses and exculpation of present and former directors and officers as those presently set forth in the certificate of incorporation and bylaws of Parent.

(c) From and after the Effective Time, (i) the Surviving Corporation shall fulfill and honor in all respects the obligations of the Company to its D&O Indemnified Parties as of immediately prior to the Closing pursuant to any indemnification provisions under the Company's Organizational Documents and pursuant to any indemnification agreements between the Company and such D&O Indemnified Parties, with respect to claims arising out of matters occurring at or prior to the Effective Time and (ii) Parent shall fulfill and honor in all respects the obligations of Parent to its D&O Indemnified Parties as of immediately prior to the Closing pursuant to any indemnification provisions under Parent's Organizational Documents and pursuant to any indemnification agreements between Parent and such D&O Indemnified Parties, with respect to claims arising out of matters occurring at or prior to the Effective Time.

(d) From and after the Effective Time, Parent shall maintain directors' and officers' liability insurance policies, with an effective date as of the Closing Date, on commercially available terms and conditions and with coverage limits customary for U.S. public companies similarly situated to Parent. In addition, Parent shall purchase, prior to the Effective Time, a six-year prepaid "tail policy" (the cost of which shall be reimbursed by the Company) for the non-cancellable extension of the directors' and officers' liability coverage of Parent's existing directors' and officers' insurance policies for a claims reporting or discovery period of at least six years from and after the Effective Time with respect to any claim related to any period of time at or prior to the Effective Time. During the term of the "tail" policy, Parent shall not take any action following the Effective Time to cause such "tail" policy to be cancelled or any provision therein to be amended or waived in any manner that would adversely affect in any material respect the rights of their former and current officers and directors.

(e) From and after the Effective Time, Parent shall pay all expenses, including reasonable attorneys' fees, that are incurred by the persons referred to in this Section 5.7 in connection with their successful enforcement of the rights provided to such persons in this Section 5.7.

(f) All rights to exculpation, indemnification and advancement of expenses for acts or omissions occurring at or prior to the Effective Time, whether asserted or claimed prior to, at or after the Closing, now existing in favor of the current or former directors, officers or employees, as the case may be, of Parent or the Company as provided in their respective certificates of incorporation or by-laws or other organization documents or in any agreement shall survive the Merger and shall continue in full force and effect. The provisions of this Section 5.7 are intended to be in addition to the rights otherwise available to the current and former officers and directors of Parent and the Company by Law, charter, statute, bylaw or agreement, and shall operate for the benefit of, and shall be enforceable by, each of the D&O Indemnified Parties, their heirs and their representatives.

(g) In the event Parent or the Surviving Corporation or any of their respective successors or assigns (i) consolidates with or merges into any other Person and shall not be the continuing or surviving corporation or entity of such consolidation or merger, or (ii) transfers all or substantially all of its properties and assets to any Person, then, and in each such case, proper provision shall be made so that the successors and assigns of Parent or the Surviving Corporation, as the case may be, shall succeed to the obligations set forth in this Section 5.7. Parent shall cause the Surviving Corporation to perform all of the obligations of the Surviving Corporation under this Section 5.7. The obligations set forth in this Section 5.7 shall not be terminated, amended or otherwise modified in any manner that adversely affects any D&O Indemnified Party, or any person who is a beneficiary under the policies referred to in this Section 5.7 and their heirs and representatives, without the prior written consent of such affected D&O Indemnified Party or other person.

5.8 **Additional Agreements**. The Parties shall (a) use commercially reasonable efforts to cause to be taken all actions necessary to consummate the Contemplated Transactions and (b) reasonably cooperate with the other Parties and provide the other Parties with such assistance as may be reasonably requested for the purpose of facilitating the performance by each Party of its respective obligations under this Agreement and to enable the Surviving Corporation to continue to meet its obligations under this Agreement following the Closing. Without limiting the generality of the foregoing, each Party to this Agreement: (i) shall make all filings and other submissions (if any) and give all notices (if any) required to be made and given by such Party in connection with the Contemplated Transactions; (ii) shall use reasonable best efforts to obtain each Consent (if any) reasonably required to be obtained (pursuant to any applicable Law or Contract, or otherwise) by such Party in connection with the Contemplated Transactions or for such Contract (except for Contracts that are terminated prior to Closing) to remain in full force and effect; (iii) shall use commercially reasonable efforts to lift any injunction prohibiting, or any other legal bar to, the Contemplated Transactions; and (iv) shall use commercially reasonable efforts to satisfy the conditions precedent to the consummation of this Agreement.

5.9 **Disclosure**. The initial press release relating to this Agreement shall be a joint press release issued by the Company and Parent and thereafter Parent and the Company shall consult with each other before issuing any further press release(s) or otherwise making any public statement or making any announcement to Parent Associates or Company Associates (to the extent not previously issued or made in accordance with this Agreement) with respect to the Contemplated Transactions and shall not issue any such press release, public statement or announcement to Parent Associates or Company Associates without the other Party's written consent (which shall not be unreasonably withheld, conditioned or delayed). Notwithstanding the foregoing: (a) each Party may, without such consultation or consent, make any public statement in response to questions from the press, analysts, investors or those attending industry conferences, make internal announcements to employees and make disclosures in Parent SEC Documents, so long as such statements are consistent with and do not disclose material information not previously disclosed in previous press releases, public disclosures or public statements made jointly by the parties (or individually, if approved by the other Party); (b) a Party may, without the prior consent of the other Party hereto but subject to giving advance notice to the other Party, issue any such press release or make any such public announcement or statement as may be required, upon advice of outside legal counsel, by any Law; and (c) neither party need consult with the other in connection with such portion of any press release, public statement or filing to be issued or made pursuant to and in accordance with the terms of Section 5.3(e) or as permitted by this Agreement and required by applicable Law with respect to any Acquisition Proposal, Company Board Adverse Recommendation Change or Parent Board Adverse Recommendation Change.

5.10 **Listing**. Parent shall use its commercially reasonable efforts, (a) to maintain its existing listing on Nasdaq until the Effective Time and to obtain approval of the listing of the combined corporation on Nasdaq, (b) to the extent required by the rules and regulations of Nasdaq, to prepare and submit to Nasdaq a notification form for the listing of the shares of Parent Common Stock to be issued in connection with the Contemplated Transactions, and to cause such shares to be approved for listing (subject to official notice of issuance); (c) to effect the Nasdaq Reverse Split and (d) to the extent required by Nasdaq Marketplace Rule 5110, to file an initial listing application for the Parent Common Stock on Nasdaq (the "***Nasdaq Listing Application***") and to cause such Nasdaq Listing Application to be conditionally approved prior to the Effective Time. The Parties will use commercially reasonable efforts to coordinate with respect to compliance with Nasdaq rules and regulations. The Company agrees to bear all Nasdaq fees associated with the Nasdaq Listing Application (the "***Nasdaq Fees***"). The Company will cooperate with Parent as reasonably requested by Parent with respect to the Nasdaq Listing Application and promptly furnish to Parent all information concerning the Company and its stockholders that may be required or reasonably requested in connection with any action contemplated by this Section 5.10.

5.11 **Tax Matters**.

(a) For United States federal income Tax purposes, (i) the Parties intend that the Merger qualify as a "reorganization" within the meaning of Section 368(a) of the Code (the "***Intended Tax Treatment***"), and

(ii) this Agreement is intended to be, and is hereby adopted as, a "plan of reorganization" for purposes of Sections 354 and 361 of the Code and Treasury Regulations Sections 1.368-2(g) and 1.368-3(a), to which Parent, Merger Sub and the Company are parties under Section 368(b) of the Code.

(b) The Parties shall use their respective reasonable best efforts to cause the Merger to qualify, and will not knowingly take any action or knowingly cause any action to be taken which action would reasonably be expected to prevent the Merger from qualifying, for the Intended Tax Treatment. Neither Party shall take any Tax reporting position inconsistent with the Intended Tax Treatment for United States federal income Tax purposes unless otherwise required by a "determination" within the meaning of Section 1313(a) of the Code. Notwithstanding the foregoing, none of Parent, Merger Sub, or the Company makes any representations or warranties to any securityholder of Parent or the Company regarding the Tax treatment of the Merger, or any of the Tax consequences to any securityholder of Parent or the Company of this Agreement, the Merger or any of the other transactions or agreements contemplated hereby.

(c) The Company shall use its reasonable best efforts to deliver to Cooley and Wilson Sonsini a "Tax Representation Letter," dated as of the date of the Tax opinions referenced in Section 5.1(d) and signed by an officer of the Company, containing representations of the Company, and Parent (and Merger Sub) shall use their reasonable best efforts to deliver to Cooley and Wilson Sonsini a "Tax Representation Letter," dated as of the date of the Tax opinions referenced in Section 5.1(d) and signed by an officer of Parent (and Merger Sub), containing representations of Parent (and Merger Sub), in each case as shall be reasonably necessary or appropriate to enable Cooley and Wilson Sonsini to render the applicable tax opinions described in Section 5.1(d).

5.12 **Directors and Officers**. The Parties shall use reasonable best efforts and take all necessary action so that immediately after the Effective Time, (a) the Parent Board is comprised of 8 members, with 2 such members designated by Parent and 6 such members designated by the Company, (b) the Persons listed in **Exhibit E** under the heading "Officers" are elected or appointed, as applicable, to the positions of officers of Parent, as set forth therein, to serve in such positions effective as of the Effective Time until successors are duly appointed and qualified in accordance with applicable Law. If any Person listed in **Exhibit E** is unable or unwilling to serve as an officer of Parent, as set forth therein, as of the Effective Time, the Parties shall mutually agree upon a successor. The Persons listed in **Exhibit E** under the heading "Board Designees — Parent" shall be Parent's designees pursuant to clause (a) of this Section 5.12 (which list may be changed by Parent at any time prior to the Closing by written notice to the Company to include different board designees who are reasonably acceptable to the Company) (the "***Parent Designees***"). The Persons listed in **Exhibit E** under the heading "Board Designees – Company" shall be the Company's designees pursuant to clause (a) of this Section 5.12 (which list may be changed by the Company at any time prior to the Closing by written notice to Parent to include different board designees who are reasonably acceptable to Parent).

5.13 **Termination of Certain Agreements and Rights**. The Company shall cause any Investor Agreements (excluding the Company Stockholder Support Agreements) to be terminated immediately prior to the Effective Time, without any liability being imposed on the part of Parent or the Surviving Corporation.

5.14 **Section 16 Matters**. Prior to the Effective Time, Parent and the Company shall take all such steps as may be required (to the extent permitted under applicable Laws) to cause any acquisitions of Parent Common Stock, restricted stock awards to acquire Parent Common Stock and any options to purchase Parent Common Stock in connection with the Contemplated Transactions, by each individual who is reasonably expected to become subject to the reporting requirements of Section 16(a) of the Exchange Act with respect to Parent, to be exempt under Rule 16b-3 promulgated under the Exchange Act. Promptly following the date of this Agreement and at least 30 calendar days prior to the Closing Date, the Company shall furnish the following information to Parent for each individual who, immediately after the Effective Time, will become subject to the reporting requirements of Section 16(a) of the Exchange Act with respect to Parent: (a) the number of shares of Company Capital Stock owned by such individual and expected to be exchanged for shares of Parent Common Stock

pursuant to the Merger, and (b) the number of other derivative securities (if any) with respect to Company Capital Stock owned by such individual and expected to be converted into shares of Parent Common Stock, restricted stock awards to acquire Parent Common Stock or derivative securities with respect to Parent Common Stock in connection with the Merger.

5.15 **Cooperation**. Each Party shall cooperate reasonably with the other Party and shall provide the other Party with such assistance as may be reasonably requested for the purpose of facilitating the performance by each Party of its respective obligations under this Agreement and to enable the combined entity to continue to meet its obligations following the Effective Time.

5.16 **Allocation Certificates**

(a) The Company will prepare and deliver to Parent at least five (5) Business Days prior to the Closing Date a certificate signed by the Chief Executive Officer of the Company in a form reasonably acceptable to Parent setting forth (as of immediately prior to the Effective Time and after giving effect to the closing of the Pre-Closing Financing) (i) each holder of Company Capital Stock and Company Options, (ii) such holder's name and address; (iii) the number and type of Company Capital Stock held and/or underlying the Company Options as of the immediately prior to the Effective Time for each such holder; and (iv) the number of shares of Parent Common Stock to be issued to such holder, or to underlie any Parent Option to be issued to such holder, pursuant to this Agreement in respect of the Company Capital Stock or Company Options held by such holder as of immediately prior to the Effective Time (the "***Allocation Certificate***").

(b) Parent will prepare and deliver to the Company at least five Business Days prior to the Closing Date a certificate signed by the Chief Financial Officer of Parent in a form reasonably acceptable to the Company, setting forth, as of immediately prior to the Effective Time (i) each record holder of Parent Common Stock, Parent Options or Parent Warrants, (ii) such record holder's name and address, (iii) the number of shares of Parent Common Stock held and/or underlying the Parent Options or Parent Warrants as of the Effective Time for such holder (the "***Parent Outstanding Shares Certificate***").

5.17 **Company Financial Statements**. As promptly as reasonably practicable following the date of this Agreement (i) and no later than 15 calendar days after the date hereof, the Company will furnish to Parent audited financial statements for the fiscal years ended 2017 and 2018 for inclusion in the Proxy Statement and the Registration Statement (the "***Company Audited Financial Statements***"), (ii) the Company will furnish to Parent unaudited interim financial statements for each interim period completed prior to Closing that would be required to be included in the Registration Statement or any periodic report due prior to the Closing if the Company were subject to the periodic reporting requirements under the Securities Act or the Exchange Act (the "***Company Interim Financial Statements***") and (iii) the Company shall use commercially reasonable efforts to cause the Company's financial statements for the fiscal year ended 2019 to be audited and delivered to Parent in a manner as is, and to the extent, required under applicable Law for the inclusion of such financial statements in the Proxy Statement and the Registration Statement. Each of the Company Audited Financial Statements and the Company Interim Financial Statements will be suitable for inclusion in the Proxy Statement and the Registration Statement and prepared in accordance with GAAP as applied on a consistent basis during the periods involved (except in each case as described in the notes thereto) and on that basis will present fairly, in all material respects, the financial position and the results of operations, changes in stockholders' equity, and cash flows of the Company as of the dates of and for the periods referred to in the Company Audited Financial Statements or the Company Interim Financial Statements, as the case may be.

5.18 **Takeover Statutes**. If any Takeover Statute is or may become applicable to the Contemplated Transactions, each of the Company, the Company Board, Parent and the Parent Board, as applicable, shall grant such approvals and take such actions as are necessary so that the Contemplated Transactions may be consummated as promptly as practicable on the terms contemplated by this Agreement and otherwise act to eliminate or minimize the effects of such statute or regulation on the Contemplated Transactions.

5.19 **Stockholder Litigation**. Each Party shall keep the other Party reasonably informed regarding any stockholder litigation against Parent or any of its directors relating to this Agreement or the Contemplated Transactions. Prior to the Closing, Parent shall reasonably consult with and permit the Company and its Representatives to participate in consideration to the Company's advice with respect to stockholder litigation. Parent shall promptly advise the Company orally and in writing of the initiation of and shall keep the Company reasonably apprised of any material developments in connection with any such stockholder litigation. Notwithstanding the foregoing, any non-monetary settlement specifically imposed on and enforceable against an individual director of Parent as of immediately prior to the Closing shall not be agreed to by the Company without the written consent of such director or any such director correctly serving as a member of the board of Parent, which consent shall not be unreasonably withheld, conditioned or delayed.

Section 6. CONDITIONS PRECEDENT TO OBLIGATIONS OF EACH PARTY

The obligations of each Party to effect the Merger and otherwise consummate the Contemplated Transactions to be consummated at the Closing are subject to the satisfaction or, to the extent permitted by applicable Law, the written waiver by each of the Parties, at or prior to the Closing, of each of the following conditions:

6.1 **No Restraints**. No temporary restraining order, preliminary or permanent injunction or other order preventing the consummation of the Contemplated Transactions shall have been issued by any court of competent jurisdiction or other Governmental Body of competent jurisdiction and remain in effect and there shall not be any Law which has the effect of making the consummation of the Contemplated Transactions illegal.

6.2 **Stockholder Approval**. (a) Parent shall have obtained the Required Parent Stockholder Vote and (b) the Company shall have obtained the Required Company Stockholder Vote.

6.3 **Listing**. (a) The existing shares of Parent Common Stock shall have been continually listed on Nasdaq as of and from the date of this Agreement through the Closing Date and (b) the shares of Parent Common Stock to be issued in the Merger pursuant to this Agreement shall have been approved for listing (subject to official notice of issuance) on Nasdaq as of the Closing.

6.4 **Effectiveness of Registration Statement**. The Registration Statement shall have become effective in accordance with the provisions of the Securities Act, and shall not be subject to any stop order or proceeding (or threatened proceeding by the SEC) seeking a stop order with respect to the Registration Statement that has not been withdrawn.

Section 7. ADDITIONAL CONDITIONS PRECEDENT TO OBLIGATIONS OF PARENT AND MERGER SUB

The obligations of Parent and Merger Sub to effect the Merger and otherwise consummate the transactions to be consummated at the Closing are subject to the satisfaction or the written waiver by Parent, at or prior to the Closing, of each of the following conditions:

7.1 **Accuracy of Representations**. The Company Fundamental Representations shall have been true and correct in all material respects as of the date of this Agreement and shall be true and correct in all material respects on and as of the Closing Date with the same force and effect as if made on and as of such date (except to the extent such representations and warranties are specifically made as of a particular date, in which case such representations and warranties shall be true and correct as of such date). The representations and warranties of the Company contained in this Agreement (other than the Company Fundamental Representations) shall have been true and correct as of the date of this Agreement and shall be true and correct on and as of the Closing Date with the same force and effect as if made on the Closing Date except (a) for those representations and warranties which address matters only as of a particular date (which representations shall have been true and correct, subject

to the qualifications as set forth in the following clause (b), as of such particular date) or (b) in each case, or in the aggregate, where the failure to be true and correct would not reasonably be expected to have a Company Material Adverse Effect (without giving effect to any references therein to any Company Material Adverse Effect or other materiality qualifications) (it being understood that, for purposes of determining the accuracy of such representations and warranties, any update of or modification to the Company Disclosure Schedule made or purported to have been made after the date of this Agreement shall be disregarded).

7.2 **Performance of Covenants**. The Company shall have performed or complied with in all material respects all agreements and covenants required to be performed or complied with by it under this Agreement at or prior to the Effective Time.

7.3 **Documents**. Parent shall have received the following documents, each of which shall be in full force and effect:

(a) a certificate executed by the Chief Executive Officer or Chief Financial Officer of the Company certifying (i) that the conditions set forth in Sections 7.1, 7.2, 7.5 and 7.6 have been duly satisfied and (ii) that the information set forth in the Allocation Certificate delivered by the Company in accordance with Section 5.16 is true and accurate in all respects as of the Closing Date; and

(b) the Allocation Certificate.

7.4 **FIRPTA Certificate**. Parent shall have received (i) an original signed statement from the Company that the Company is not, and has not been at any time during the applicable period specified in Section 897(c)(1)(A)(ii) of the Code, a "United States real property holding corporation," as defined in Section 897(c)(2) of the Code, conforming to the requirements of Treasury Regulations Section 1.1445-2(c)(3) and 1.897-2(h), and (ii) an original signed notice to be delivered to the IRS in accordance with the provisions of Treasury Regulations Section 1.897-2(h)(2), together with written authorization for Parent to deliver such notice to the IRS on behalf of the Company following the Closing, each dated as of the Closing Date, duly executed by an authorized officer of the Company, and in form and substance reasonably acceptable to Parent.

7.5 **No Company Material Adverse Effect**. Since the date of this Agreement, there shall not have occurred any Company Material Adverse Effect that is continuing.

7.6 **Termination of Investor Agreements**. The Investor Agreements shall have been terminated (or will be terminated as of the Closing).

7.7 **Company Lock-Up Agreements**. Parent shall have received the Company Lock-Up Agreements duly executed by each of the Company Lock-Up Signatories and each executive officer and director of the Company who is elected or appointed, as applicable, as an executive officer and director of Parent as of immediately following the Closing, each of which shall be in full force and effect.

7.8 **Pre-Closing Financing**. The Pre-Closing Financing Agreement shall be in full force and effect and cash proceeds of not less than the Concurrent Investment Amount shall have been received by the Company, or will be received by the Company or Parent substantially simultaneously with the Closing, in connection with the consummation of the transactions contemplated by the Securities Purchase Agreement.

7.9 **Company Stockholder Written Consent**. The Company Stockholder Written Consent executed by the Company Signatories shall be in full force and effect.

Section 8. ADDITIONAL CONDITIONS PRECEDENT TO OBLIGATION OF THE COMPANY

The obligations of the Company to effect the Merger and otherwise consummate the transactions to be consummated at the Closing are subject to the satisfaction or the written waiver by the Company, at or prior to the Closing, of each of the following conditions:

8.1 **Accuracy of Representations**. The Parent Fundamental Representations shall have been true and correct in all material respects as of the date of this Agreement and shall be true and correct in all material respects on and as of the Closing Date with the same force and effect as if made on and as of such date (except to the extent such representations and warranties are specifically made as of a particular date, in which case such representations and warranties shall be true and correct as of such date). The representations and warranties of Parent and Merger Sub contained in this Agreement (other than the Parent Fundamental Representations) shall have been true and correct as of the date of this Agreement and shall be true and correct on and as of the Closing Date with the same force and effect as if made on the Closing Date except (a) for those representations and warranties which address matters only as of a particular date (which representations shall have been true and correct, subject to the qualifications as set forth in the following clause (b), as of such particular date) or (b) in each case, or in the aggregate, where the failure to be true and correct would not reasonably be expected to have a Parent Material Adverse Effect (without giving effect to any references therein to any Parent Material Adverse Effect or other materiality qualifications), (it being understood that, for purposes of determining the accuracy of such representations and warranties, any update of or modification to the Parent Disclosure Schedule made or purported to have been made after the date of this Agreement shall be disregarded).

8.2 **Performance of Covenants**. Parent and Merger Sub shall have performed or complied with in all material respects all of their agreements and covenants required to be performed or complied with by each of them under this Agreement at or prior to the Effective Time.

8.3 **Documents**. The Company shall have received the following documents, each of which shall be in full force and effect:

(a) a certificate executed by the Chief Executive Officer or Chief Financial Officer of Parent certifying that the conditions set forth in Sections 8.1, 8.2, and 8.4 have been duly satisfied;

(b) the Parent Outstanding Shares Certificate;

(c) a written resignation, in a form reasonably satisfactory to the Company, dated as of the Closing Date and effective as of the Closing, executed by each of the directors of Parent who are not to continue as directors of Parent after the Closing pursuant to Section 5.12 hereof; and

(d) the Parent Closing Financial Certificate, a draft of which shall have been provided at least five (5) Business Days prior to the Closing, which certificate shall be accompanied by such supporting documentation, information and calculations as are reasonably requested by the Company to verify and determine the information contained therein.

8.4 **No Parent Material Adverse Effect**. Since the date of this Agreement, there shall not have occurred any Parent Material Adverse Effect that is continuing.

8.5 **Parent Cash**. Parent and the Company have agreed in writing upon the Net Cash Calculation, or the Accounting Firm has delivered its determination with respect to the Net Cash Calculation, in each case pursuant to Section 1.6, and Parent Net Cash as so agreed or determined is greater than or equal to $3,000,000.

Section 9. TERMINATION

9.1 **Termination**. This Agreement may be terminated prior to the Effective Time (whether before or after approval of the Company Stockholder Matters by the Company's stockholders and whether before or after approval of the Parent Stockholder Matters by Parent's stockholders, unless otherwise specified below):

(a) by mutual written consent of Parent and the Company;

(b) by either Parent or the Company if the Contemplated Transactions shall not have been consummated by August 19, 2020 (subject to possible extension as provided in this Section 9.1(b), the "***End Date***"); *provided, however*, that the right to terminate this Agreement under this Section 9.1(b) shall not be available to the Company, on the one hand, or to Parent, on the other hand, if such Party's action or failure to act has been a principal cause of the failure of the Contemplated Transactions to occur on or before the End Date and such action or failure to act constitutes a breach of this Agreement, *provided*, *further, however*, that, in the event that a request for additional information has been made by any Governmental Body, or in the event that the SEC has not declared effective under the Exchange Act the Registration Statement by the date which is 30 calendar days prior to the End Date, then either Parent or the Company shall be entitled to extend the End Date for an additional 60 calendar days by written notice to the other party, but in the event the Company makes such an extension it shall first waive the conditions in Section 8.5 in writing;

(c) by either Parent or the Company if a court of competent jurisdiction or other Governmental Body shall have issued a final and non-appealable order, decree or ruling, or shall have taken any other action, having the effect of permanently restraining, enjoining or otherwise prohibiting the Contemplated Transactions;

(d) by Parent if the Company Stockholder Written Consent executed by each Company Signatory shall not have been obtained within five Business Days of the Registration Statement becoming effective in accordance with the provisions of the Securities Act; *provided*, *however*, that once the Company Stockholder Written Consent has been obtained, Parent may not terminate this Agreement pursuant to this Section 9.1(d);

(e) by either Parent or the Company if (i) the Parent Stockholders' Meeting (including any adjournments and postponements thereof) shall have been held and completed and (ii) the Parent Stockholder Matters shall not have been approved at such Parent Stockholders' Meeting by the Required Parent Stockholder Vote;

(f) by the Company (at any time prior to the approval of the Parent Stockholder Matters by the Required Parent Stockholder Vote) if a Parent Triggering Event shall have occurred;

(g) by Parent (at any time prior to the Required Company Stockholder Vote being obtained) if a Company Triggering Event shall have occurred;

(h) by the Company, upon a breach of any representation, warranty, covenant or agreement set forth in this Agreement by Parent or Merger Sub or if any representation or warranty of Parent or Merger Sub shall have become inaccurate, in either case, such that the conditions set forth in Section 8.1 or Section 8.2 would not be satisfied as of the time of such breach or as of the time such representation or warranty shall have become inaccurate; *provided* that the Company is not then in material breach of any representation, warranty, covenant or agreement under this Agreement; *provided*, *further*, that if such inaccuracy in Parent's or Merger Sub's representations and warranties or breach by Parent or Merger Sub is curable by the End Date by Parent or Merger Sub, then this Agreement shall not terminate pursuant to this Section 9.1(h) as a result of such particular breach or inaccuracy until the earlier of (i) the End Date and (ii) the expiration of a 30 calendar day period commencing upon delivery of written notice from the Company to Parent or Merger Sub of such breach or inaccuracy and its intention to terminate pursuant to this Section 9.1(h) (it being understood that this Agreement shall not terminate pursuant to this Section 9.1(h) as a result of such particular breach or inaccuracy if such breach by Parent or Merger Sub is cured prior to such termination becoming effective);

(i) by Parent, upon a breach of any representation, warranty, covenant or agreement set forth in this Agreement by the Company or if any representation or warranty of the Company shall have become inaccurate, in either case, such that the conditions set forth in Section 7.1 or Section 7.2 would not be satisfied as of the time of such breach or as of the time such representation or warranty shall have become inaccurate; *provided* that Parent is not then in material breach of any representation, warranty, covenant or agreement under this Agreement; *provided*, *further*, that if such inaccuracy in the Company's representations and warranties or breach by the Company is curable by the End Date by the Company then this Agreement shall not terminate pursuant to this Section 9.1(i) as a result of such particular breach or inaccuracy until the earlier of (i) the End Date and (ii) the expiration of a 30 calendar day period commencing upon delivery of written notice from Parent to the Company of such breach or inaccuracy and its intention to terminate pursuant to this Section 9.1(i) (it being understood that this Agreement shall not terminate pursuant to this Section 9.1(i) as a result of such particular breach or inaccuracy if such breach by the Company is cured prior to such termination becoming effective);

(j) by Parent, at any time, if (i) Parent has received a Superior Offer, (ii) Parent has complied with its obligations under Section 5.3(d) with respect to such Superior Offer, (iii) Parent concurrently terminates this Agreement and enters into a Permitted Alternative Agreement with respect to such Superior Offer and (iv) substantially concurrently with such termination, Parent pays to the Company the amount contemplated by Section 9.3(b); or

(k) by Parent, if the Company Audited Financial Statements have not been provided by the Company to Parent within sixty (60) calendar days of the date hereof, *provided* that Parent shall not be entitled to terminate this Agreement pursuant to this Section 9.1(k) after the time such Company Audited Financial Statements have been delivered.

The Party desiring to terminate this Agreement pursuant to Section 9.1, shall give the other party written a notice of such termination, specifying the provisions hereof pursuant to which such termination is made and the basis therefor described in reasonable detail.

9.2 **Effect of Termination**. In the event of the termination of this Agreement as provided in Section 9.1, this Agreement shall be of no further force or effect; *provided*, *however*, that (a) this Section 9.2, Section 5.9, Section 9.3, Section 10 and the definitions of the defined terms in such Sections shall survive the termination of this Agreement and shall remain in full force and effect, and (b) the termination of this Agreement and the provisions of Section 9.3 shall not relieve any Party of any liability for fraud or for any willful and material breach of any representation, warranty, covenant, obligation or other provision contained in this Agreement.

9.3 **Expenses; Termination Fees**.

(a) Except as set forth in this Section 9.3, Section 5.7(d), and Section 5.10, all the Transaction Expenses shall be paid by the Party incurring such expenses, whether or not the Merger is consummated. Notwithstanding the foregoing, the Company shall pay all fees and expenses incurred under clauses (b) and (d) of the definition of the Transaction Expenses.

(b) In the event that either:

(i) (A) this Agreement is terminated pursuant to Section 9.1(b), Section 9.1(e) or Section 9.1(h), (B) at any time after the date hereof and before such termination an Acquisition Proposal with respect to Parent shall have been either publicly announced or disclosed to Parent or the Parent Board, in each case after the date of this Agreement but prior to the termination of this Agreement and (C) within 12 months after the date of such termination, Parent consummates a Subsequent Transaction, whether or not in respect of the Acquisition Proposal referred to in clause (B);

(ii) this Agreement is terminated by the Company pursuant to Section 9.1(f) (or, at the time this Agreement is terminated, the Company had the right to terminate this Agreement pursuant to Section 9.1(f)); or

(iii) this Agreement is terminated by Parent pursuant to Section 9.1(j),

then in the case of a termination pursuant to Section 9.3(b)(i) or 9.3(b)(ii) Parent shall pay to the Company an amount equal to $500,000, and in the case of a termination pursuant to 9.3(b)(iii) Parent shall pay to the Company an amount equal to $750,000 (each, the "***Company Termination Fee***") within three Business Days of consummation of such Subsequent Transaction or any termination under clause (ii).

(c) In the event that either:

(i) (A) this Agreement is terminated pursuant to Section 9.1(b), Section 9.1(e) or Section 9.1(i), (B) at any time after the date hereof and before such termination an Acquisition Proposal with respect to the Company shall have been either publicly announced or disclosed or otherwise communicated to the Company or the Company Board, in each case after the date of this Agreement but prior to the termination of this Agreement and (C) within 12 months after the date of such termination, the Company consummates a Subsequent Transaction whether or not in respect of the Acquisition Proposal referred to in clause (B); or

(ii) this Agreement is terminated by Parent pursuant to Section 9.1(g) (or, at the time this Agreement is terminated, Parent had the right to terminate this Agreement pursuant to Section 9.1(g)),

then in the case of a termination pursuant to Section 9.3(c)(i) the Company shall pay to Parent an amount equal to $1,000,000, and in the case of a termination pursuant to Section 9.3(c)(ii) the Company shall pay to Parent an amount equal to $3,000,000 (each, the "***Parent Termination Fee***") within three Business Days of consummation of such Subsequent Transaction or any termination under clause (ii).

(d) If this Agreement is terminated pursuant to Section 9.1(e), Parent shall, within two Business Days of receipt of an invoice therefor, reimburse the Company for 50% of the Transaction Expenses incurred by the Company in connection with the Contemplated Transactions (the "***Expense Reimbursement***"); *provided* that in no event shall such Expense Reimbursement be in an amount greater than $250,000. For the avoidance of doubt, the Expense Reimbursement, to the extent paid, shall be credited against any Company Termination Fee which becomes payable thereafter.

(e) Any Company Termination Fee, Parent Termination Fee or Expense Reimbursement due under this Section 9.3 shall be paid by wire transfer of same day funds. If a Party fails to pay when due any amount payable by it under this Section 9.3, then such Party shall pay to the other Party interest on such overdue amount (for the period commencing as of the date such overdue amount was originally required to be paid and ending on the date such overdue amount is actually paid to the Company in full) at a rate per annum equal to the "prime rate" (as published in *The Wall Street Journal* or any successor thereto) in effect on the date such overdue amount was originally required to be paid.

(f) The Parties agree that, (i) subject to Section 9.2, payment of the Company Termination Fee or Expense Reimbursement shall, in the circumstances in which it is owed in accordance with the terms of this Agreement, constitute the sole and exclusive remedy of the Company following the termination of this Agreement, it being understood that in no event shall Parent be required to pay the amounts payable pursuant to this Section 9.3 on more than one occasion and (ii) following payment of the Company Termination Fee (x) Parent shall have no further liability to the Company in connection with or arising out of this Agreement or the termination thereof, any breach of this Agreement by Parent giving rise to such termination, or the failure of the Contemplated Transactions to be consummated, (y) neither the Company nor any of its Affiliates shall be entitled to bring or maintain any other claim, action or proceeding against Parent or Merger Sub or seek to obtain

any recovery, judgment or damages of any kind against such Parties (or any partner, member, stockholder, director, officer, employee, Subsidiary, Affiliate, agent or other Representative of such Parties) in connection with or arising out of this Agreement or the termination thereof, any breach by any such Parties giving rise to such termination or the failure of the Contemplated Transactions to be consummated and (z) the Company and its Affiliates shall be precluded from any other remedy against Parent, Merger Sub and their respective Affiliates, at law or in equity or otherwise, in connection with or arising out of this Agreement or the termination thereof, any breach by such Party giving rise to such termination or the failure of the Contemplated Transactions to be consummated; *provided*, *however*, that nothing in this Section 9.3(f) shall limit the rights of Parent and Merger Sub under Section 10.11.

(g) The Parties agree that, (i) subject to Section 9.2, payment of the Parent Termination Fee shall, in the circumstances in which it is owed in accordance with the terms of this Agreement, constitute the sole and exclusive remedy of Parent following the termination of this Agreement, it being understood that in no event shall the Company be required to pay the amounts payable pursuant to this Section 9.3 on more than one occasion and (ii) following payment of the Parent Termination Fee (x) the Company shall have no further liability to Parent in connection with or arising out of this Agreement or the termination thereof, any breach of this Agreement by the Company giving rise to such termination, or the failure of the Contemplated Transactions to be consummated, (y) neither Parent nor any of its Affiliates shall be entitled to bring or maintain any other claim, action or proceeding against the Company or seek to obtain any recovery, judgment or damages of any kind against such Parties (or any partner, member, stockholder, director, officer, employee, Subsidiary, Affiliate, agent or other Representative of such Parties) in connection with or arising out of this Agreement or the termination thereof, any breach by any such Parties giving rise to such termination or the failure of the Contemplated Transactions to be consummated and (z) Parent and its Affiliates shall be precluded from any other remedy against the Company and its Affiliates, at law or in equity or otherwise, in connection with or arising out of this Agreement or the termination thereof, any breach by such Party giving rise to such termination or the failure of the Contemplated Transactions to be consummated; *provided*, *however*, that nothing in this Section 9.3(g) shall limit the rights of the Company under Section 10.11.

(h) Each of the Parties acknowledges that (i) the agreements contained in this Section 9.3 are an integral part of the Contemplated Transactions, (ii) without these agreements, the Parties would not enter into this Agreement and (iii) any amount payable pursuant to this Section 9.3 is not a penalty, but rather is liquidated damages in a reasonable amount that will compensate the applicable Party in the circumstances in which such amount is payable.

Section 10. MISCELLANEOUS PROVISIONS

10.1 **Non-Survival of Representations and Warranties**. The representations and warranties of the Company, Parent and Merger Sub contained in this Agreement or any certificate or instrument delivered pursuant to this Agreement shall terminate at the Effective Time, and only the covenants that by their terms survive the Effective Time and this Section 10 shall survive the Effective Time.

10.2 **Amendment**. This Agreement may be amended with the approval of the respective boards of directors of the Company, Merger Sub and Parent at any time (whether before or after obtaining the Required Company Stockholder Vote or before or after obtaining the Required Parent Stockholder Vote); *provided*, *however*, that after any such approval of this Agreement by a Party's stockholders, no amendment shall be made which by Law requires further approval of such stockholders without the further approval of such stockholders. This Agreement may not be amended except by an instrument in writing signed on behalf of each of the Company, Merger Sub and Parent.

10.3 **Waiver**.

(a) No failure on the part of any Party to exercise any power, right, privilege or remedy under this Agreement, and no delay on the part of any Party in exercising any power, right, privilege or remedy under this

Agreement, shall operate as a waiver of such power, right, privilege or remedy; and no single or partial exercise of any such power, right, privilege or remedy shall preclude any other or further exercise thereof or of any other power, right, privilege or remedy.

(b) No Party shall be deemed to have waived any claim arising out of this Agreement, or any power, right, privilege or remedy under this Agreement, unless the waiver of such claim, power, right, privilege or remedy is expressly set forth in a written instrument duly executed and delivered on behalf of such Party and any such waiver shall not be applicable or have any effect except in the specific instance in which it is given.

10.4 **Entire Agreement; Counterparts; Exchanges by Electronic Transmission**. This Agreement, the Company Disclosure Schedule, the Parent Disclosure Schedule and the other agreements referred to in this Agreement constitute the entire agreement and supersede all prior agreements and understandings, both written and oral, among or between any of the Parties with respect to the subject matter hereof and thereof; *provided*, *however*, that the Confidentiality Agreement shall not be superseded and shall remain in full force and effect in accordance with its terms. This Agreement may be executed in several counterparts, each of which shall be deemed an original and all of which shall constitute one and the same instrument. The exchange of a fully executed Agreement (in counterparts or otherwise) by all Parties by electronic transmission in .PDF format shall be sufficient to bind the Parties to the terms and conditions of this Agreement.

10.5 **Applicable Law; Jurisdiction**. This Agreement shall be governed by, and construed in accordance with, the Laws of the State of Delaware, regardless of the Laws that might otherwise govern under applicable principles of conflicts of laws. In any action or proceeding between any of the Parties arising out of or relating to this Agreement or any of the Contemplated Transactions, each of the Parties: (a) irrevocably and unconditionally consents and submits to the exclusive jurisdiction and venue of the Court of Chancery of the State of Delaware or, to the extent such court does not have subject matter jurisdiction, the United States District Court for the District of Delaware or, to the extent that neither of the foregoing courts has jurisdiction, the Superior Court of the State of Delaware; (b) agrees that all claims in respect of such action or proceeding shall be heard and determined exclusively in accordance with clause (a) of this Section 10.5; (c) waives any objection to laying venue in any such action or proceeding in such courts; (d) waives any objection that such courts are an inconvenient forum or do not have jurisdiction over any Party; (e) agrees that service of process upon such Party in any such action or proceeding shall be effective if notice is given in accordance with Section 10.8 of this Agreement; and (f) irrevocably and unconditionally waives the right to trial by jury.

10.6 **Attorneys' Fees**. In any action at law or suit in equity to enforce this Agreement or the rights of any of the Parties, the prevailing Party in such action or suit (as determined by a court of competent jurisdiction) shall be entitled to recover its reasonable out-of-pocket attorneys' fees and all other reasonable costs and expenses incurred in such action or suit.

10.7 **Assignability**. This Agreement shall be binding upon, and shall be enforceable by and inure solely to the benefit of, the Parties and their respective successors and permitted assigns; *provided*, *however*, that neither this Agreement nor any of a Party's rights or obligations hereunder may be assigned or delegated by such Party without the prior written consent of the other Party, and any attempted assignment or delegation of this Agreement or any of such rights or obligations by such Party without the other Party's prior written consent shall be void and of no effect.

10.8 **Notices**. All notices and other communications hereunder shall be in writing and shall be deemed to have been duly delivered and received hereunder (a) one Business Day after being sent for next Business Day delivery, fees prepaid, via a reputable international overnight courier service, (b) upon delivery in the case of delivery by hand, or (c) on the date delivered in the place of delivery if sent by email (with a written or electronic

confirmation of delivery) prior to 5:00 p.m. San Diego time, otherwise on the next succeeding Business Day, in each case to the intended recipient as set forth below:

if to Parent or Merger Sub:

Tocagen Inc.
4242 Campus Point Ct #500,
San Diego, CA 92121
Attention: Mark Foletta
Email: mfoletta@tocagen.com

with a copy to (which shall not constitute notice):

Cooley LLP
4401 Eastgate Mall
San Diego, CA 92121
Attention: Rama Padmanabhan and Karen Deschaine
Email: rama@cooley.com and kdeschaine@cooley.com

if to the Company:

Forte Biosciences, Inc.
1124 W Carson Street
MRL Building 3-320
Torrance, CA 90502
Attention: Paul A. Wagner
Email: pwagner@fortebiorx.com

with a copy to (which shall not constitute notice):

Wilson Sonsini Goodrich & Rosati
One Market Plaza, Spear Tower, Suite 3300
San Francisco, California 94105
Attention: Dan Koeppen and Ethan Lutske
Email: dkoeppen@wsgr.com and elutske@wsgr.com

10.9 **Cooperation**. Each Party agrees to cooperate fully with the other Party and to execute and deliver such further documents, certificates, agreements and instruments and to take such other actions as may be reasonably requested by the other Party to evidence or reflect the Contemplated Transactions and to carry out the intent and purposes of this Agreement.

10.10 **Severability**. Any term or provision of this Agreement that is invalid or unenforceable in any situation in any jurisdiction shall not affect the validity or enforceability of the remaining terms and provisions of this Agreement or the validity or enforceability of the offending term or provision in any other situation or in any other jurisdiction. If a final judgment of a court of competent jurisdiction declares that any term or provision of this Agreement is invalid or unenforceable, the Parties agree that the court making such determination shall have the power to limit such term or provision, to delete specific words or phrases or to replace such term or provision with a term or provision that is valid and enforceable and that comes closest to expressing the intention of the invalid or unenforceable term or provision, and this Agreement shall be valid and enforceable as so modified. In the event such court does not exercise the power granted to it in the prior sentence, the Parties agree to replace such invalid or unenforceable term or provision with a valid and enforceable term or provision that will achieve, to the extent possible, the economic, business and other purposes of such invalid or unenforceable term or provision.

10.11 **Other Remedies; Specific Performance**. Except as otherwise provided herein, any and all remedies herein expressly conferred upon a Party will be deemed cumulative with and not exclusive of any other remedy conferred hereby, or by law or equity upon such Party, and the exercise by a Party of any one remedy will not preclude the exercise of any other remedy. The Parties agree that irreparable damage for which monetary damages, even if available, would not be an adequate remedy, would occur in the event that any Party does not perform the provisions of this Agreement (including failing to take such actions as are required of it hereunder to consummate this Agreement) in accordance with its specified terms or otherwise breaches such provisions. Accordingly, the Parties acknowledge and agree that the Parties shall be entitled to an injunction, specific performance and other equitable relief to prevent breaches of this Agreement and to enforce specifically the terms and provisions hereof, in addition to any other remedy to which they are entitled at law or in equity. Each of the Parties agrees that it will not oppose the granting of an injunction, specific performance or other equitable relief on the basis that any other Party has an adequate remedy at law or that any award of specific performance is not an appropriate remedy for any reason at law or in equity. Any Party seeking an injunction or injunctions to prevent breaches of this Agreement shall not be required to provide any bond or other security in connection with any such order or injunction.

10.12 **No Third Party Beneficiaries**. Nothing in this Agreement, express or implied, is intended to or shall confer upon any Person (other than the Parties and the D&O Indemnified Parties to the extent of their respective rights pursuant to Section 5.7) any right, benefit or remedy of any nature whatsoever under or by reason of this Agreement.

10.13 **Construction**.

(a) References to "cash," "dollars" or "$" are to U.S. dollars.

(b) For purposes of this Agreement, whenever the context requires: the singular number shall include the plural, and vice versa; the masculine gender shall include the feminine and neuter genders; the feminine gender shall include the masculine and neuter genders; and the neuter gender shall include masculine and feminine genders.

(c) The Parties have participated jointly in the negotiating and drafting of this Agreement and agree that any rule of construction to the effect that ambiguities are to be resolved against the drafting Party shall not be applied in the construction or interpretation of this Agreement, and no presumption or burden of proof shall arise favoring or disfavoring any Party by virtue of the authorship of any provision of this Agreement.

(d) As used in this Agreement, the words "include" and "including," and variations thereof, shall not be deemed to be terms of limitation, but rather shall be deemed to be followed by the words "without limitation."

(e) Except as otherwise indicated, all references in this Agreement to "Sections," "Exhibits" and "Schedules" are intended to refer to Sections of this Agreement and Exhibits and Schedules to this Agreement, respectively.

(f) Any reference to legislation or to any provision of any legislation shall include any modification, amendment, re-enactment thereof, any legislative provision substituted thereof and all rules, regulations, and statutory instruments issued or related to such legislations.

(g) The bold-faced headings and table of contents contained in this Agreement are for convenience of reference only, shall not be deemed to be a part of this Agreement and shall not be referred to in connection with the construction or interpretation of this Agreement.

(h) The Parties agree that each of the Company Disclosure Schedule and the Parent Disclosure Schedule shall be arranged in sections and subsections corresponding to the numbered and lettered sections and

subsections contained in this Agreement. The disclosures in any section or subsection of the Company Disclosure Schedule or the Parent Disclosure Schedule shall qualify other sections and subsections in this Agreement to the extent it is readily apparent on its face from a reading of the disclosure that such disclosure is applicable to such other sections and subsections.

(i) Each of "delivered" or "made available" means, with respect to any documentation, that prior to 11:59 p.m. (San Diego time) on the date that is two calendar days prior to the date of this Agreement (i) a copy of such material has been posted to and made available by a Party to the other Party and its Representatives in the electronic data room maintained by such disclosing Party or (ii) such material is disclosed in the Parent SEC Documents filed with the SEC prior to the date hereof and publicly made available on the SEC's Electronic Data Gathering Analysis and Retrieval system.

(j) Whenever the last day for the exercise of any privilege or the discharge of any duty hereunder shall fall upon a Saturday, Sunday, or any date on which banks in San Diego, California are authorized or obligated by Law to be closed, the Party having such privilege or duty may exercise such privilege or discharge such duty on the next succeeding day which is a regular Business Day.

(*Remainder of page intentionally left blank*)

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed as of the date first above written.

TOCAGEN INC.

By: /s/ Martin J. Duvall
Name: Martin J. Duvall
Title: CEO

TELLURIDE MERGER SUB, INC.

By: /s/ Mark G. Foletta
Name: Mark G. Foletta
Title: CFO

FORTE BIOSCIENCES, INC.

By: /s/ Paul Wagner
Name: Paul Wagner
Title: President / CEO

EXHIBIT A

CERTAIN DEFINITIONS

(a) For purposes of this Agreement (including this Exhibit A):

"***Acquisition Inquiry***" means, with respect to a Party, an inquiry, indication of interest or request for information (other than an inquiry, indication of interest or request for information made or submitted by the Company, on the one hand, or Parent, on the other hand, to the other Party) that would reasonably be expected to lead to an Acquisition Proposal.

"***Acquisition Proposal***" means, with respect to a Party, any offer or proposal, whether written or oral (other than an offer or proposal made or submitted by or on behalf of the Company or any of its Affiliates, on the one hand, or by or on behalf of Parent or any of its Affiliates, on the other hand, to the other Party) contemplating or otherwise relating to or which would reasonably be interpreted to lead to any Acquisition Transaction with such Party, other than the Asset Dispositions.

"***Acquisition Transaction***" means any transaction or series of related transactions (other than the Asset Dispositions) involving:

(i) any merger, consolidation, amalgamation, share exchange, business combination, issuance of securities, acquisition of securities, reorganization, recapitalization, tender offer, exchange offer or other similar transaction: (i) in which a Party is a constituent entity; (ii) in which a Person or "group" (as defined in the Exchange Act and the rules promulgated thereunder) of Persons directly or indirectly acquires beneficial or record ownership of securities representing more than 20% of the outstanding securities of any class of voting securities of a Party or any of its Subsidiaries; or (iii) in which a Party or any of its Subsidiaries issues securities representing more than 20% of the outstanding securities of any class of voting securities of such Party or any of its Subsidiaries; *provided*, that in the case of Company, the Pre-Closing Financing shall not be an "Acquisition Transaction"; or

(ii) any sale, lease, exchange, transfer, license, acquisition or disposition of any business or businesses or assets that constitute or account for 20% or more of the consolidated book value or the fair market value of the assets of a Party and its Subsidiaries, taken as a whole.

"***Affiliate***" of a Person means any other Person that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such Person. The term "control" (including the terms "controlled by" and "under common control with") means the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of a Person, whether through the ownership of voting securities, by contract or otherwise.

"***Business Day***" means any day other than a Saturday, Sunday or other day on which banks in San Diego or Los Angeles, California are authorized or obligated by Law to be closed.

"***California Law***" means the California Corporations Code, as amended.

"***Cash and Cash Equivalents***" means all (a) unrestricted cash and cash equivalents and (b) marketable securities, in each case determined in accordance with GAAP, consistently applied.

"***Code***" means the Internal Revenue Code of 1986, as amended.

"***Company Affiliate***" means any Person that is (or at any relevant time was) under common control with the Company within the meaning of Sections 414(b), (c), (m) and (o) of the Code, and the regulations issued thereunder.

"***Company Associate***" means any current or former employee, independent contractor, officer or director of the Company.

"***Company Board***" means the board of directors of the Company.

"***Company Capital Stock***" means the Company Common Stock and the Company Preferred Stock.

"***Company Change in Circumstance***" means a change in circumstances (other than an Acquisition Proposal) that affects the business, assets or operations of the Company that occurs or arises after the date of this Agreement and that was neither known to Company or its board of directors nor reasonably foreseeable on, or prior to, the date of this Agreement.

"***Company Common Stock***" means the Common Stock, $0.0001 par value per share, of the Company.

"***Company Contract***" means any Contract: (a) to which the Company is a Party; (b) by which the Company or any Company IP or any other asset of the Company is or may become bound or under which the Company has, or may become subject to, any obligation; or (c) under which the Company has or may acquire any right or interest.

"***Company ERISA Affiliate***" means any corporation or trade or business (whether or not incorporated) which is (or at any relevant time was) treated with the Company as a single employer within the meaning of Section 414 of the Code.

"***Company Fundamental Representations***" means the representations and warranties of the Company set forth in Sections 2.1 (Due Organization; Subsidiaries), 2.3 (Authority; Binding Nature of Agreement), 2.4 (Vote Required), 2.6(a) and (c) (Capitalization) and 2.20 (No Financial Advisors).

"***Company IP***" means all Intellectual Property Rights that are owned or purported to be owned by the Company.

"***Company Material Adverse Effect***" means any Effect that, considered together with all other Effects (a) has a material adverse effect on the business, financial condition, operations or results of operations of the Company taken as a whole; provided, however, that, in no event will any of the following, alone or in combination, be deemed to constitute, nor will any of the following be taken into account in determining whether there has occurred, a Company Material Adverse Effect: (a) general business or economic conditions generally affecting the industry in which the Company operates, (b) natural disasters, acts of war, armed hostilities or terrorism, (c) changes in financial, banking or securities markets, (d) any failure by the Company to meet internal projections or forecasts or third party revenue or earnings predictions for any period ending (or for which revenues or earnings are released) on or after the date of the Agreement (it being understood, however, that any effect causing or contributing to such failures to meet projections or predictions may constitute a Company Material Adverse Effect and may, if not otherwise to be disregarded pursuant to a different subclause of this definition, be taken into account in determining whether a Company Material Adverse Effect has occurred), (e) any change in, or any compliance with or action taken for the purpose of complying with, any Law or GAAP (or interpretations of any Law or GAAP), (f) resulting from the announcement of this Agreement or the pendency of the Contemplated Transactions, (g) resulting from the taking of any action required to be taken by this Agreement; except in each case with respect to clauses (a) through (c), to the extent disproportionately affecting the Company relative to other similarly situated companies in the industries in which the Company operates.

"***Company Options***" means options or other rights to purchase shares of Company Capital Stock issued by the Company.

"***Company Triggering Event***" shall be deemed to have occurred if: (a) the Company shall have made a Company Board Adverse Recommendation Change; (b) the Company Board or any committee thereof shall have

publicly approved, endorsed or recommended any Acquisition Proposal; or (c) the Company shall have entered into any letter of intent or similar document relating to any Acquisition Proposal in violation of the terms of this Agreement.

"***Company Unaudited Interim Balance Sheet***" means the unaudited consolidated balance sheet of the Company for the twelve month period ended December 31, 2019 provided to Parent prior to the date of this Agreement.

"***Company Warrant***" means warrants to purchase capital stock of the Company.

"***Concurrent Investment Amount***" means $10,000,000.

"***Confidentiality Agreement***" means the Mutual Non-Disclosure Agreement, dated as of December 6, 2019, between the Company and Parent.

"***Consent***" means any approval, consent, ratification, permission, waiver or authorization (including any Governmental Authorization).

"***Contemplated Transactions***" means the Merger and the other transactions and actions contemplated by this Agreement, including the Nasdaq Reverse Split, the Asset Disposition and the Pre-Closing Financing.

"***Contract***" means, with respect to any Person, any agreement, contract, subcontract, lease (whether for real or personal property), mortgage, license, sublicense or other legally binding commitment or undertaking of any nature to which such Person is a party or by which such Person or any of its assets are bound or affected under applicable Law.

"***DGCL***" means the General Corporation Law of the State of Delaware.

"***Effect***" means any effect, change, event, circumstance, or development.

"***Encumbrance***" means any lien, pledge, hypothecation, charge, mortgage, security interest, lease, license, option, easement, reservation, servitude, adverse title, claim, infringement, interference, option, right of first refusal, preemptive right, community property interest or restriction or encumbrance of any nature (including any restriction on the voting of any security, any restriction on the transfer of any security or other asset, any restriction on the receipt of any income derived from any asset, any restriction on the use of any asset and any restriction on the possession, exercise or transfer of any other attribute of ownership of any asset).

"*Enforceability Exceptions*" means the (a) Laws of general application relating to bankruptcy, insolvency and the relief of debtors; and (b) rules of law governing specific performance, injunctive relief and other equitable remedies.

"***Entity***" means any corporation (including any non-profit corporation), partnership (including any general partnership, limited partnership or limited liability partnership), joint venture, estate, trust, company (including any company limited by shares, limited liability company or joint stock company), firm, society or other enterprise, association, organization or entity, and each of its successors.

"***Environmental Law***" means any federal, state, local or foreign Law relating to pollution or protection of human health or the environment (including ambient air, surface water, ground water, land surface or subsurface strata), including any Law or regulation relating to emissions, discharges, releases or threatened releases of Hazardous Materials, or otherwise relating to the manufacture, processing, distribution, use, treatment, storage, disposal, transport or handling of Hazardous Materials.

"***ERISA***" means the Employee Retirement Income Security Act of 1974, as amended.

"***Exchange Act***" means the Securities Exchange Act of 1934.

"***Exchange Ratio***" means, subject to Section 1.5(g), the following ratio (rounded to four decimal places): the quotient obtained by dividing (a) (i) the Company Valuation divided by (ii) the Company Outstanding Shares by (b) (i) Parent Valuation divided by (ii) the Parent Outstanding Shares, in which:

- "***Company Equity Value***" means $40,000,000.

- "***Company Valuation***" means (i) if the proceeds of the Pre-Closing Financing is equal to or greater than the Concurrent Investment Amount, the sum of (x) the Company Equity Value *plus* (y) the amount by which the proceeds of the Pre-Closing Financing exceed the Concurrent Investment Amount, or (ii) if the proceeds of the Pre-Closing Financing are less than the Concurrent Investment Amount, the sum of (x) the Company Equity Value *minus* (y) the amount by which the Concurrent Investment Amount exceeds proceeds of the Pre-Closing Financing.

- "***Company Outstanding Shares***" means the total number of shares of Company Capital Stock outstanding immediately prior to the Effective Time expressed on a fully-diluted and as-converted to Company Common Stock basis assuming, without limitation or duplication, (i) the exercise of all Company Options and Company Warrants outstanding as of immediately prior to the Effective Time, (ii) the consummation of the Pre-Closing Financing and the issuance of all Company Capital Stock pursuant to the Securities Purchase Agreement and (iii) the issuance of shares of Company Capital Stock in respect of all other outstanding options, restricted stock awards or rights to receive such shares, whether conditional or unconditional and including any outstanding options or rights triggered by or associated with the consummation of the Merger (but excluding any shares of Company Capital Stock reserved for issuance other than with respect to outstanding Company Options under the Company Plan as of immediately prior to the Effective Time). Notwithstanding any of the foregoing, no out of the money Company Warrants shall be included in the total number of shares of Company Common Stock outstanding for purposes of determining the Company Outstanding Shares.

- "***Parent Equity Value***" means $15,000,000.

- "***Parent Outstanding Shares***" means, subject to Section 1.5(g) (that addresses, among other things, the possibility to effect the Nasdaq Reverse Split), the total number of shares of Parent Common Stock outstanding immediately prior to the Effective Time expressed on a fully-diluted basis, but assuming, without limitation or duplication, the issuance of shares of Parent Common Stock in respect of all Parent Options, Parent RSUs, Parent Warrants, and other outstanding options, warrants or rights to receive such shares, in each case, outstanding as of immediately prior to the Effective Time, whether conditional or unconditional and including any outstanding options, warrants or rights triggered by or associated with the consummation of the Merger. Notwithstanding any of the foregoing, no out of the money Parent Warrants shall be included in the total number of shares of Parent Common Stock outstanding for purposes of determining the Parent Outstanding Shares.

- "***Parent Valuation***" means (i) if Parent Net Cash is greater than $10,000,000, the sum of (x) the Parent Equity Value *plus* (y) the amount by which Parent Net Cash exceeds $10,000,000, (ii) if Parent Net Cash is equal to or greater than $7,500,000 and equal to or less than $10,000,000, the Parent Equity Value, or (iii) if Parent Net Cash is less than $7,500,000, the sum of (x) the Parent Equity Value, *minus* (y) the amount by which $7,500,000 exceeds Parent Net Cash.

"***GAAP***" means generally accepted accounting principles and practices in effect from time to time within the United States applied consistently throughout the period involved.

"***Governmental Authorization***" means any: (a) permit, license, certificate, franchise, permission, variance, exception, order, clearance, registration, qualification or authorization issued, granted, given or otherwise made available by or under the authority of any Governmental Body or pursuant to any Law; or (b) right under any Contract with any Governmental Body.

"***Governmental Body***" means any: (a) nation, state, commonwealth, province, territory, county, municipality, district or other jurisdiction of any nature; (b) federal, state, local, municipal, foreign or other government; (c) governmental or quasi-governmental authority of any nature (including any governmental division, department, agency, commission, bureau, instrumentality, official, ministry, fund, foundation, center, organization, unit, body or Entity and any court or other tribunal, and for the avoidance of doubt, any taxing authority); or (d) self-regulatory organization (including Nasdaq).

"***Hazardous Materials***" means any pollutant, chemical, substance and any toxic, infectious, carcinogenic, reactive, corrosive, ignitable or flammable chemical, or chemical compound, or hazardous substance, material or waste, whether solid, liquid or gas, that is subject to regulation, control or remediation under any Environmental Law, including without limitation, crude oil or any fraction thereof, and petroleum products or by-products.

"***Intellectual Property Rights***" means and includes all past, present, and future rights of the following types, which may exist or be created under the laws of any jurisdiction in the world: (a) rights associated with works of authorship, including exclusive exploitation rights, copyrights, moral rights, software, databases, and mask works; (b) trademarks, service marks, trade dress, logos, trade names and other source identifiers, domain names and URLs and similar rights and any goodwill associated therewith; (c) rights associated with trade secrets, know how, inventions, invention disclosures, methods, processes, protocols, specifications, techniques and other forms of technology; (d) patents and industrial property rights; and (e) other similar proprietary rights in intellectual property of every kind and nature; (f) rights of privacy and publicity; and (g) all registrations, renewals, extensions, statutory invention registrations, provisionals, continuations, continuations-in-part, provisionals, divisions, or reissues of, and applications for, any of the rights referred to in clauses "(a)" through "(f)" above (whether or not in tangible form and including all tangible embodiments of any of the foregoing, such as samples, studies and summaries), along with all rights to prosecute and perfect the same through administrative prosecution, registration, recordation or other administrative proceeding, and all causes of action and rights to sue or seek other remedies arising from or relating to the foregoing.

"***IRS***" means the United States Internal Revenue Service.

"***Knowledge***" means, with respect to an individual, that such individual is actually aware of the relevant fact or such individual would reasonably be expected to know such fact in the ordinary course of the performance of such individual's employment responsibilities. Any Person that is an Entity shall have Knowledge if any officer or director of such Person as of the date such knowledge is imputed has Knowledge of such fact or other matter.

"***Law***" means any federal, state, national, foreign, material local or municipal or other law, statute, constitution, principle of common law, resolution, ordinance, code, edict, decree, rule, regulation, ruling or requirement issued, enacted, adopted, promulgated, implemented or otherwise put into effect by or under the authority of any Governmental Body (including under the authority of Nasdaq or the Financial Industry Regulatory Authority).

"***Legal Proceeding***" means any action, suit, litigation, arbitration, proceeding (including any civil, criminal, administrative, investigative or appellate proceeding), hearing, inquiry, audit, examination or

investigation commenced, brought, conducted or heard by or before, or otherwise involving, any court or other Governmental Body or any arbitrator or arbitration panel.

"***Merger Sub Board***" means the board of directors of Merger Sub.

"***Nasdaq***" means the Nasdaq Stock Market, including the Nasdaq Global Select Market or such other Nasdaq market on which shares of Parent Common Stock are then listed.

"***Nasdaq Reverse Split***" means a reverse stock split of all outstanding shares of Parent Common Stock at a reverse stock split ratio in the range of 8:1 to 12:1 or as otherwise mutually agreed to by Parent and the Company that is effected by Parent for the purpose of maintaining compliance with Nasdaq listing standards.

"***Ordinary Course of Business***" means, in the case of each of the Company and Parent, such actions taken in the ordinary course of its normal operations and consistent with its past practices.

"***Organizational Documents***" means, with respect to any Person (other than an individual), (a) the certificate or articles of association or incorporation or organization or limited partnership or limited liability company, and any joint venture, limited liability company, operating or partnership agreement and other similar documents adopted or filed in connection with the creation, formation or organization of such Person and (b) all bylaws, regulations and similar documents or agreements relating to the organization or governance of such Person, in each case, as amended or supplemented.

"***Parent Associate***" means any current or former employee, independent contractor, officer or director of Parent.

"***Parent Balance Sheet***" means the audited balance sheet of Parent as of December 31, 2018 (the "***Parent Balance Sheet Date***"), included in Parent's Report on Form 10-K for the year ended December 31, 2018, as filed with the SEC.

"***Parent Board***" means the board of directors of Parent.

"***Parent Change in Circumstance***" means a change in circumstances (other than an Acquisition Proposal) that affects the business, assets or operations of Parent that occurs or arises after the date of this Agreement that was neither known to Parent or its board of directors nor reasonably foreseeable on, or prior to, the date of this Agreement.

"***Parent Closing Financial Certificate***" means a certificate executed by the Chief Financial Officer of Parent, on behalf of Parent and not in his or her personal capacity, certifying Parent Net Cash as of the Anticipated Closing Date.

"***Parent Closing Price***" means the volume weighted average closing trading price of a share of Parent Common Stock on Nasdaq for the five consecutive trading days ending five trading days immediately prior to the date upon which the Merger becomes effective.

"***Parent Common Stock***" means the Common Stock, $0.01 par value per share, of Parent.

"***Parent Contract***" means any Contract: (a) to which Parent is a party; (b) by which Parent or any Parent IP or any other asset of Parent is or may become bound or under which Parent has, or may become subject to, any obligation; or (c) under which Parent has or may acquire any right or interest.

"***Parent ERISA Affiliate***" means any corporation or trade or business (whether or not incorporated) which is (or at any relevant time was) treated with Parent or any of its Subsidiaries as a single employer within the meaning of Section 414 of the Code.

"***Parent Fundamental Representations***" means the representations and warranties of Parent and Merger Sub set forth in Sections 3.1(a) (Due Organization; Subsidiaries), 3.3 (Authority; Binding Nature of Agreement), 3.4 (Vote Required), 3.6(a) and (c) (Capitalization) and 3.21 (No Financial Advisors).

"***Parent IP***" means all Intellectual Property Rights that are owned or purported to be owned by Parent or its Subsidiaries.

"***Parent Material Adverse Effect***" means any Effect that, considered together with all other Effects, (a) has a material adverse effect on the business, financial condition, operations or results of operations of Parent and its Subsidiaries taken as a whole; *provided*, *however*, that, in no event will any of the following, alone or in combination, be deemed to constitute, nor will any of the following be taken into account in determining whether there has occurred, a Parent Material Adverse Effect: (a) general business or economic conditions affecting the industry in which Parent operates, (b) natural disasters, acts of war, armed hostilities or terrorism, (c) changes in financial, banking or securities markets, (d) any change in the stock price or trading volume of Parent Common Stock (it being understood, however, that any Effect causing or contributing to any change in stock price or trading volume of Parent Common Stock may be taken into account in determining whether a Parent Material Adverse Effect has occurred, unless such Effects are otherwise excepted from this definition), (e) the failure of Parent to meet internal or analysts' expectations or projections or the results of operations of Parent (it being understood, however, that any effect causing or contributing to such failures to meet projections or predictions may constitute a Parent Material Adverse Effect and may, if not otherwise to be disregarded pursuant to a different subclause of this definition, be taken into account in determining whether a Parent Material Adverse Effect has occurred); (f) any change in, or any compliance with or action taken for the purpose of complying with, any Law or GAAP (or interpretations of any Law or GAAP), or (g) resulting from the announcement of this Agreement or the pendency of the Contemplated Transactions, except in each case with respect to clauses (a) through (c), to the extent disproportionately affecting Parent relative to other similarly situated companies in the industries in which Parent operates.

"***Parent Net Cash***" means without duplication and consistent with Schedule I, (a) the sum of Parent's Cash and Cash Equivalents, in each case as of the Anticipated Closing Date, determined in a manner consistent with the manner in which such items were historically determined and in accordance with the financial statements (including any related notes) contained or incorporated by reference in the Parent SEC Documents and the Parent Balance Sheet, *minus* (b) the sum of Parent's short and long term liabilities accrued at Anticipated Closing Date, in each case determined in a manner consistent with the manner in which such items were historically determined and in accordance with the financial statements (including any related notes) contained or incorporated by reference in the Parent SEC Documents and the Parent Balance Sheet (including fees and expenses incurred in connection with the Contemplated Transactions), but including for the avoidance of doubt Transaction Expenses of Parent to the extent unpaid as of the Closing, *minus* (c) actual and reasonably projected liabilities related to wind down activities of Parent associated with the termination of its research and development activities listed calculated in a manner consistent with the calculations included on Schedule I of the Parent Disclosure Schedule, *minus* (d) the cash cost of any unpaid change of control payments or severance, termination or similar payments pursuant to a Contract that are or become due to any current or former employee, director or independent contractor of Parent, or any other third party, in each case in connection with the Closing, *plus* (e) prepaid expenses that are reasonably likely to be utilized by Parent and/or Surviving Corporation on and following the Closing and liabilities set forth on Schedule I that are reasonably likely to be utilized by Parent and/or Surviving Corporation on and following the Closing, *plus* (f) expenses paid, or liabilities incurred, prior to Closing, that are approved in writing to be covered by Parent's D&O insurance in excess of the deductible, and *plus* (g) any net cash proceeds received by, or due to Parent within 90 days of Closing, from the sale of any Asset Dispositions prior to Closing (net of Tax payable by Parent on such amounts, if any, determined after taking into account any Tax attributes, such as net operating losses and Tax credits, that reduce or eliminate such Tax) and *plus* (h) deposits set forth on Schedule I. For illustrative purposes only, a sample statement of Parent Net Cash as of the date described therein is set forth on Schedule 1.6.

"***Parent Options***" means options or other rights to purchase shares of Parent Common Stock issued by Parent.

"***Parent RSUs***" means any restricted stock unit award granted pursuant to the Parent Stock Plans or otherwise.

"***Parent Stock Plans***" means, (a) Parent's 2009 Equity Incentive Plan, as amended, (b) Parent's 2017 Equity Incentive Plan, as amended, (c) Parent's Annual Incentive Plan, as amended and (d) and Parent's 2017 Employee Stock Purchase Plan.

"***Parent Triggering Event***" shall be deemed to have occurred if: (a) Parent shall have failed to include in the Proxy Statement the Parent Board Recommendation or shall have made a Parent Board Adverse Recommendation Change; (b) the Parent Board or any committee thereof shall have publicly approved, endorsed or recommended any Acquisition Proposal; or (c) Parent shall have entered into any letter of intent or similar document relating to any Acquisition Proposal (other than a confidentiality agreement permitted pursuant to Section 4.4) in violation of the terms of this Agreement.

"***Parent Warrants"*** means the warrants to purchase capital stock of Parent listed on **Exhibit D**.

"***Party***" or "***Parties***" means the Company, Merger Sub and Parent.

"***Permitted Alternative Agreement***" means a definitive agreement that contemplates or otherwise relates to an Acquisition Transaction that constitutes a Superior Offer.

"***Permitted Encumbrance***" means: (a) any liens for current Taxes not yet due and payable or for Taxes that are being contested in good faith and for which adequate reserves have been made on the Company Unaudited Interim Balance Sheet or the Parent Balance Sheet, as applicable; (b) minor liens that have arisen in the Ordinary Course of Business and that do not (in any case or in the aggregate) materially detract from the value of the assets or properties subject thereto or materially impair the operations of the Company or Parent, as applicable; (c) statutory liens to secure obligations to landlords, lessors or renters under leases or rental agreements; (d) deposits or pledges made in connection with, or to secure payment of, workers' compensation, unemployment insurance or similar programs mandated by Law; (e) non-exclusive licenses of Intellectual Property Rights granted by the Company or Parent, as applicable, in the Ordinary Course of Business and that do not (in any case or in the aggregate) materially detract from the value of the Intellectual Property Rights subject thereto; and (f) statutory liens in favor of carriers, warehousemen, mechanics and materialmen, to secure claims for labor, materials or supplies.

"***Person***" means any individual, Entity or Governmental Body.

"***Potentially Transferable Assets***" means the tangible and intangible assets used in or related to Toca 511, Toca FC, the RRV platform, cell lines, reagents and assays, in Vivo Car-T Technology, and immortal MSC technology.

"***Pre-Closing Financing***" means an acquisition of Company Common Stock to be consummated immediately prior to the Closing pursuant to the Securities Purchase Agreement.

"***Proxy Statement***" means the definitive proxy statement/prospectus to be sent to Parent's stockholders in connection with the Parent Stockholders' Meeting.

"***Reference Date***" means February 18, 2020.

"***Registered IP***" means all Intellectual Property Rights that are registered or issued under the authority of any Governmental Body, including all patents, registered copyrights, registered mask works, and registered trademarks, service marks and trade dress, registered domain names, and all applications for any of the foregoing.

"***Registration Statement***" means the registration statement on Form S-4 (or any other applicable form under the Securities Act to register Parent Common Stock) to be filed with the SEC by Parent registering the public offering and sale of Parent Common Stock to some or all holders of Company Common Stock in the Merger, including all shares of Parent Common Stock to be issued in exchange for all other shares of Company Common Stock in the Merger, as said registration statement may be amended prior to the time it is declared effective by the SEC.

"***Representatives***" means directors, officers, employees, agents, attorneys, accountants, investment bankers, advisors and representatives.

"***Sarbanes-Oxley Act***" means the Sarbanes-Oxley Act of 2002.

"***SEC***" means the United States Securities and Exchange Commission.

"***Securities Act***" means the Securities Act of 1933, as amended.

"***Subsequent Transaction***" means any Acquisition Transaction (with all references to 20% in the definition of Acquisition Transaction being treated as references to 50% for these purposes).

An entity shall be deemed to be a "***Subsidiary***" of a Person if such Person directly or indirectly owns or purports to own, beneficially or of record, (a) an amount of voting securities or other interests in such entity that is sufficient to enable such Person to elect at least a majority of the members of such entity's board of directors or other governing body, or (b) at least 50% of the outstanding equity, voting, beneficial or financial interests in such Entity.

"***Superior Offer***" means an unsolicited bona fide written Acquisition Proposal (with all references to 20% in the definition of Acquisition Transaction being treated as references to greater than 50% for these purposes) that: (a) was not obtained or made as a direct or indirect result of a breach of (or in violation of) this Agreement; and (b) is on terms and conditions that the Parent Board or the Company Board, as applicable, determines in good faith, based on such matters that it deems relevant (including the likelihood of consummation thereof), as well as any written offer by the other Party to this Agreement to amend the terms of this Agreement, and following consultation with its outside legal counsel and outside financial advisors, if any, are more favorable, from a financial point of view, to Parent's stockholders or the Company's stockholders, as applicable, than the terms of the Contemplated Transactions.

"***Takeover Statute***" means any "fair price," "moratorium," "control share acquisition" or other similar anti-takeover Law.

"***Tax***" means any federal, state, local, foreign or other tax, including any income, capital gain, gross receipts, capital stock, profits, transfer, estimated, registration, stamp, premium, escheat, unclaimed property, customs duty, ad valorem, occupancy, occupation, alternative, add-on, windfall profits, value added, severance, property, business, production, sales, use, license, excise, franchise, employment, payroll, social security, disability, unemployment, workers' compensation, national health insurance, withholding or other taxes, duties, fees, assessments or governmental charges, surtaxes or deficiencies thereof of any kind in the nature of a tax, however denominated, and including any fine, penalty, addition to tax or interest imposed by a Governmental Body with respect thereto.

"***Tax Return***" means any return (including any information return), report, statement, declaration, estimate, schedule, notice, notification, form, election, certificate or other document, and any amendment or supplement to any of the foregoing, filed with or submitted to, or required to be filed with or submitted to, any Governmental Body in connection with the determination, assessment, collection or payment of any Tax or in connection with the administration, implementation or enforcement of or compliance with any Law relating to any Tax.

"***Treasury Regulations***" means the United States Treasury regulations promulgated under the Code.

"***Transaction Expenses***" means, with respect to each party, all fees and expenses incurred by such Party at or prior to the Effective Time in connection with the Contemplated Transactions and this Agreement, including (a) any fees and expenses of legal counsel and accountants, the maximum amount of fees and expenses payable to financial advisors, investment bankers, brokers, consultants, and other advisors of such party; (b) fees paid to the SEC in connection with filing the Registration Statement, the Proxy Statement, and any amendments and supplements thereto, with the SEC; (c) any fees and expenses in connection with the printing, mailing and distribution of the Registration Statement and any amendments and supplements thereto; (d) the Nasdaq Fees; and (e) only with respect to Parent, any bonus, severance, change-in-control payments or similar payment obligations (including payments with "single-trigger" provisions triggered at and as of the consummation of the transactions contemplated hereby) that become due or payable to any director, officer, employee or consultant of Parent in connection with the consummation of the Contemplated Transactions

(b) Each of the following terms is defined in the Section set forth opposite such term:

Term	Section
Accounting Firm	1.6(e)
Agreement	Preamble
Allocation Certificate	5.16(a)
Anti-Bribery Laws	2.23
Anticipated Closing Date	1.6(a)
Asset Disposition	4.7
Asset Dispositions	4.7
Business Associate Agreements	2.14(g)
Certificate of Merger	1.3
Certifications	3.7(a)
Closing	1.3
Closing Date	1.3
Company	Preamble
Company Audited Financial Statements	5.17
Company Benefit Plan	2.17(a)
Company Board Adverse Recommendation Change	5.2(d)
Company Board Recommendation	5.2(d)
Company Disclosure Schedule	Section 2
Company Financials	2.7(a)
Company In-bound License	2.12(d)
Company Interim Financial Statements	5.17
Company Lock-Up Agreement	Recitals
Company Lock-Up Signatories	Recitals
Company Material Contract	2.13(a)
Company Material Contracts	2.13(a)
Company Out-bound License	2.12(d)
Company Permits	2.14(b)
Company Plan	2.6(c)
Company Preferred Stock	2.6(a)

Term	Section
Company Real Estate Leases	2.11
Company Signatories	Recitals
Company Stock Certificate	1.7
Company Stockholder Matters	5.2(a)
Company Stockholder Support Agreement	Recitals
Company Stockholder Written Consent	Recitals
Company Stockholder Written Consents	Recitals
Company Termination Fee	9.3(b)
Continuing Employees	5.6(a)
Cooley	5.1(d)
Costs	5.7(a)
D&O Indemnified Parties	5.7(a)
Dispute Notice	1.6(b)
Dissenting Shares	1.9(a)
Drug Regulatory Agency	2.14(a)
Effective Time	1.3
End Date	9.1(b)
Exchange Agent	1.8(a)
Exchange Fund	1.8(a)
Expense Reimbursement	9.3(d)
FDA	2.14(a)
FDCA	2.14(a)
HIPAA	2.14(g)
Information Statement	5.2(a)
Intended Tax Treatment	5.11(a)
Investor Agreements	2.22(b)
Liability	2.9
Merger	Recitals
Merger Consideration	1.5(a)(ii)
Merger Sub	Preamble
Nasdaq Fees	5.10
Nasdaq Listing Application	5.10
Net Cash Calculation	1.6(a)
Net Cash Schedule	1.6(a)
Parent	Preamble
Parent Benefit Plan	3.17(a)
Parent Board Adverse Recommendation Change	5.3(c)
Parent Board Recommendation	5.3(c)
Parent Designees	4.1(b)(vi)
Parent Designees	5.12
Parent Determination Notice	5.3(d)(i)
Parent Disclosure Schedule	Section 3
Parent In-bound License	3.12(d)
Parent Lock-Up Agreement	Recitals
Parent Material Contract	3.13
Parent Out-bound License	3.12(d)
Parent Outstanding Shares Certificate	5.16(b)
Parent Permits	3.14(b)
Parent Real Estate Leases	3.11
Parent SEC Documents	3.7(a)
Parent Stockholder Matters	5.3(a)

Term	Section
Parent Stockholder Support Agreement	Recitals
Parent Stockholders' Meeting	5.3(a)
Parent Termination Fee	9.3(c)
Post-Closing Plans	5.6(a)
Pre-Closing Period	4.1(a)
Required Company Stockholder Vote	2.4
Required Parent Stockholder Vote	3.4
Response Date	1.6(b)
Securities Purchase Agreement	Recitals
Sensitive Data	2.12(g)
Stockholder Notice	5.2(c)
Surviving Corporation	1.1
Wilson Sonsini	5.1(d)

Exhibit E

Officers

Name	Title
Paul A. Wagner, Ph.D.	President and Chief Executive Officer

Directors

Parent Designees: Those directors designated pursuant to Section 5.12 of the Merger Agreement.

Company Designees:

Paul A. Wagner, Ph.D.

Lawrence Eichenfield, M.D.

Those directors designated pursuant to Section 5.12 of the Merger Agreement.

Annex B

Strictly Confidential

February 19, 2020

To the Board of Directors of Tocagen Inc.
4242 Campus Point Court, Suite 600
San Diego, CA 92121

Members of the Board of Directors:

We have been advised that Tocagen Inc., a Delaware corporation ("Tocagen" or the "Company"), proposes to enter into an Agreement and Plan of Merger and Reorganization (the "Agreement"), by and among the Company, Telluride Merger Sub, Inc., a wholly-owned subsidiary of Tocagen ("Merger Sub"), and Forte Biosciences, Inc., a Delaware corporation ("Forte"). Pursuant to the Agreement, the Merger Sub will be merged with and into Forte, with Forte continuing as the surviving corporation (the "Merger"). We further understand that as a result of the Merger, Forte will become a wholly-owned subsidiary of Tocagen and each share of common stock of Forte outstanding immediately prior to the Merger (the "Forte Common Stock") will be converted into the right to receive a number of duly authorized, validly issued, fully paid and non-assessable shares of Tocagen common stock (the "Company Common Stock") equal to the Exchange Ratio of 1.7705. Immediately following the consummation of the Merger, the holders of Forte Common Stock (including the holders of any outstanding options to purchase Forte Common Stock) shall hold approximately 72.7% of the fully diluted shares of Company Common Stock outstanding (excluding Tocagen options and warrants that were out of the money immediately prior to the Merger on a treasury stock method basis) and the holders of Company Common Stock shall hold approximately 27.3% of the fully diluted shares of Company Common Stock outstanding (excluding Tocagen options and warrants that were out of the money immediately prior to the Merger on a treasury stock method basis). The ownership split takes into account the Pre-Closing Financing gross proceeds of $10.0 million. The terms and conditions of the Merger are more fully set forth in the Agreement and capitalized terms used but not defined herein shall have the meanings ascribed to such terms in the Agreement.

In your capacity as members of the Board of Directors of Tocagen (the "Board of Directors"), you have requested our opinion (the "Opinion"), as to the fairness of the Exchange Ratio, from a financial point of view, to the stockholders of the Company.

In connection with our Opinion, we took into account an assessment of general economic, market and financial conditions as well as our experience in connection with similar transactions and securities valuations generally and, among other things:

- Reviewed a draft dated February 11, 2020 of the Agreement, which was the most recent draft made available to us prior to the delivery of our Opinion;
- Reviewed and analyzed certain publicly available financial and other information for each of Tocagen and Forte, respectively, including equity research on comparable companies and on Tocagen, and certain other relevant financial and operating data furnished to us by the management of Tocagen, including information Tocagen obtained from Forte;

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New York, NY 10172
Phone 212.409.2000 * Fax 212.409.2169

MEMBER NYSE, NYSE MKT, FINRA, SIPC

- Reviewed and analyzed certain relevant historical financial and operating data concerning Forte furnished to us by the management of Tocagen, which Tocagen obtained from Forte;
- Discussed with certain members of the management of Tocagen the historical and current business operations, financial condition and prospects of Tocagen and Forte;
- Reviewed and analyzed certain operating results of Forte as compared to operating results and the reported price and trading histories of certain publicly traded companies that we deemed relevant;
- Reviewed and analyzed certain internal financial analyses, projections as to cost and expenses, reports, preliminary internal market opportunity assumptions and other information concerning Forte prepared by the management of Forte as well as projections for Forte prepared and adjusted by the management of Tocagen which was then provided to us and utilized per instruction of Tocagen;
- Reviewed and analyzed certain financial terms of the Agreement as compared to the publicly available financial terms of certain selected business combinations that we deemed relevant;
- Reviewed and analyzed certain financial terms of completed initial public offerings for certain companies that we deemed relevant;
- Reviewed certain pro forma financial effects of the Merger;
- Reviewed and analyzed such other information and other factors, and conducted such other financial studies, analyses and investigations as we deemed relevant for the purposes of the Opinion; and
- Took into account our experience in other transactions, as well as our experience in securities valuations and our general knowledge of the industry in which Forte operates

In conducting our review and arriving at our Opinion, we have, with your consent, assumed and relied, without independent investigation, upon the accuracy and completeness of all financial and other information provided to us by the Company and Forte, respectively, or which is publicly available or was otherwise reviewed by us. We have not undertaken any responsibility for the accuracy, completeness or reasonableness of, or independent verification of, such information. We have relied upon, without independent verifications, the assessment of the Company management and Forte management as to the viability of, and risks associated with, the current and future products and services of Forte (including without limitation, the development, testing and marketing of such products and services, the receipt of all necessary governmental and other regulatory approvals for the development, testing and marketing thereof, and the life and enforceability of all relevant patents and other intellectual and other property rights associated with such products and services). In addition, we have not conducted, nor have assumed any obligation to conduct, any physical inspection of the properties or facilities of the Company or Forte. We have been instructed by the Company, and have assumed, with your consent, that the Company's net cash at Closing will be $7.5 million. Furthermore, we have assumed, with your consent, that there will be no further adjustments to the Exchange Ratio between the date hereof and the date the final Exchange Ratio is determined, unless the net cash at Closing is less than $7.5 million or greater than $10.0 million. We have further been advised that the Company may sell certain legacy Tocagen assets, technology and intellectual property (the "Legacy Assets"). It is understood that the net cash proceeds received by, or due to, Tocagen within 90 days of the Closing in any such sale or license of the Legacy Assets entered into prior to the Closing, would be added to Tocagen's net cash. We therefore assume that the only value attributed to the Company will be its net cash and the value of its Nasdaq listing. With respect to the financial forecasts supplied to us by the Company regarding Forte, we have, with your consent, assumed that they were reasonably prepared on the basis reflecting the best currently available estimates and judgements of the management of the Company and Forte, as applicable, as to the future operating and financial performance of the Company and Forte, as applicable, and that they provided a reasonable basis upon which we could form our Opinion.

We expressly disclaim any undertaking or obligation to advise any person of any change in any fact or matter affecting our Opinion of which we become aware after the date hereof. We assumed there were no material changes in the assets, liabilities, financial condition, results of operations, business or prospects of the Company or Forte since the date of the last financial statements made available to us. We have not made or obtained any independent evaluations, valuations or appraisals of the assets or liabilities of the Company or Forte, nor have we been furnished with such materials. In addition, we have not evaluated the solvency or fair value of the Company or Forte under any state or federal laws relating to bankruptcy, insolvency or similar matters. Our Opinion does not address any legal, tax or accounting matters related to the Agreement or the Merger, as to which we have assumed that the Company and the Board of Directors have received such advice from legal, tax and accounting advisors as each has determined appropriate. Our Opinion addresses only the fairness of the Exchange Ratio, from a financial point of view, to the stockholders of the Company. We express no view as to any other aspect or implication of the Merger or any other agreement, arrangement or understanding entered into in connection with the Merger or otherwise, and we express no opinion as to the terms of the Pre-Closing Financing. Our Opinion is necessarily based upon economic and market conditions and other circumstances as they exist and can be evaluated by us on the date hereof. It should be understood that although subsequent developments may affect our Opinion, we do not have any obligation to update, revise or reaffirm our Opinion and we expressly disclaim any responsibility to do so.

We have not considered any potential legislative or regulatory changes currently being considered or recently enacted by the United States or any foreign government, or any domestic or foreign regulatory body, or any changes in accounting methods or generally accepted accounting principles that may be adopted by the Securities and Exchange Commission, the Financial Accounting Standards Board, or any similar foreign regulatory body or board.

For purposes of rendering our Opinion we have assumed in all respects material to our analysis, that the representations and warranties of each party contained in the Agreement are true and correct, that each party will perform all of the standards of the covenants and agreements required to be performed by it under the Agreement and that all conditions to the consummation of the Merger will be satisfied without waiver thereof. We have assumed that the final form of the Agreement will be substantially similar to the last draft reviewed by us. We have also assumed that all governmental, regulatory and other consents and approvals contemplated by the Agreement will be obtained and that in the course of obtaining any of those consents no restrictions will be imposed or waivers made that would have an adverse effect on the contemplated benefits of the Merger. We have assumed that the Merger will be consummated in a manner that complies with the applicable provisions of the Securities Act of 1933, as amended, the Securities Exchange Act of 1934, as amended, and all other applicable federal and state statutes, rules and regulations. You have informed us, and we have assumed, that the Merger will be treated as a tax-free reorganization within the meaning of 368(a)(1)(B) of the Code.

It is understood that this letter is intended for the benefit and use of the Board of Directors in its consideration of the financial terms of the Merger (except as set forth in the Engagement Letter (as defined below) and may not be used for any other purpose or reproduced, disseminated, quoted or referred to at any time, in any manner or for any purpose without our prior written consent, except that this Opinion may be disclosed in full in any proxy statement or prospectus filed with any registration statement that is required to be filed in connection with the Merger with the Securities and Exchange Commission. This letter does not constitute a recommendation to the Board of Directors on whether or not to approve the Merger or to any stockholder or any other person as to how to vote with respect to the Merger or to take any other action in connection with the Merger or otherwise. Our Opinion does not address the Company's underlying business decision to proceed with the Merger or the relative merits of the Merger compared to other alternatives available to the Company. We express no opinion as to the prices or ranges of prices at which shares of securities of any person, including the Company, will trade at any

time, including following the announcement or consummation of the Merger. We have not been requested to opine as to, and our Opinion does not in any manner address, the amount or nature of compensation to any of the officers, directors or employees of any party to the Merger, or any class of such persons, relative to the compensation to be paid to the holders of Company Common Stock in connection with the Merger or with respect to the fairness of any such compensation.

Ladenburg Thalmann & Co. Inc. ("Ladenburg") is a full-service investment bank providing investment banking, brokerage, equity research, institutional sales and trading and asset management services. As part of our investment banking services, we are regularly engaged in the valuation of businesses and their securities in connection with mergers and acquisitions, negotiated underwritings, secondary distributions of listed and unlisted securities, private placements and valuations for corporate and other purposes. We have acted as Tocagen's financial advisor in connection with the Merger and will receive a fee for our services pursuant to the terms of our Engagement Letter, a significant portion of which is contingent upon consummation of the Merger. In the two years preceding the date hereof, Ladenburg has had equity research coverage on Tocagen but has not received any frees from Tocagen aside from the fees described below. In the two years preceding the date hereof, Ladenburg has not had a relationship with Forte and has not received any fees from Forte. Ladenburg and its affiliates may in the future seek to provide investment banking or financial advisory services to Tocagen and Forte and/or certain of their respective affiliates and expect to receive fees for the rendering of these services.

In the ordinary course of business, Ladenburg, certain of our affiliates, as well as investment funds in which we or our affiliates may have financial interests, may acquire, hold or sell long or short positions, or trade or otherwise effect transactions in debt, equity, and other securities and financial instruments (including bank loans and other obligations) of, or investments in, Tocagen, Forte or any other party that may be involved in the Merger and/or their respective affiliates.

Consistent with applicable legal and regulatory requirements, Ladenburg has adopted policies and procedures to establish and maintain the independence of our research department and personnel. As a result, our research analysts may hold views, make statements or investment recommendations and/or publish research reports with respect to the Company and the proposed Merger that may differ from the views of Ladenburg's investment banking personnel.

The opinion set forth below was reviewed and approved by a fairness opinion committee of Ladenburg.

Pursuant to the engagement letter between Ladenburg and Tocagen, dated October 24, 2019 (the "Engagement Letter"), if the Merger is consummated, Ladenburg will be entitled to receive a transaction fee of $950,000 payable by wire transfer at the Closing. Tocagen also paid an initial fee of $150,000, which is not credited against any other fees received in connection with the Merger, and paid a fee for the delivery of this Opinion of $250,000. Additionally, Tocagen has agreed to reimburse Ladenburg for its out of pocket expenses and has agreement to indemnify Ladenburg against certain liabilities. The terms of the fee arrangement with Ladenburg, which are customary in transactions of this nature, were negotiated at arm's length between Tocagen and Ladenburg, and the Board of Directors was aware of the arrangement, including the fact that a portion of the fee payable to Ladenburg is contingent upon the consummation of the Merger.

Based upon and subject to the foregoing, including the various assumptions and limitations set forth herein, it is our opinion that, as of the date hereof, the Exchange Ratio is fair, from a financial point of view, to the stockholders of the Company.

Very truly yours,

/s/ ***Ladenburg Thalmann & Co. Inc.***

Annex C

GENERAL CORPORATION LAW OF THE STATE OF DELAWARE REGARDING APPRAISAL RIGHTS

SECTION 262 OF THE GENERAL CORPORATION LAW OF THE STATE OF DELAWARE

§ 262. Appraisal rights

(a) Any stockholder of a corporation of this State who holds shares of stock on the date of the making of a demand pursuant to subsection (d) of this section with respect to such shares, who continuously holds such shares through the effective date of the merger or consolidation, who has otherwise complied with subsection (d) of this section and who has neither voted in favor of the merger or consolidation nor consented thereto in writing pursuant to § 228 of this title shall be entitled to an appraisal by the Court of Chancery of the fair value of the stockholder's shares of stock under the circumstances described in subsections (b) and (c) of this section. As used in this section, the word "stockholder" means a holder of record of stock in a corporation; the words "stock" and "share" mean and include what is ordinarily meant by those words; and the words "depository receipt" mean a receipt or other instrument issued by a depository representing an interest in one or more shares, or fractions thereof, solely of stock of a corporation, which stock is deposited with the depository.

(b) Appraisal rights shall be available for the shares of any class or series of stock of a constituent corporation in a merger or consolidation to be effected pursuant to § 251 (other than a merger effected pursuant to § 251(g) of this title), § 252, § 254, § 255, § 256, § 257, § 258, § 263 or § 264 of this title:

(1) Provided, however, that, except as expressly provided in § 363(b) of this title, no appraisal rights under this section shall be available for the shares of any class or series of stock, which stock, or depository receipts in respect thereof, at the record date fixed to determine the stockholders entitled to receive notice of the meeting of stockholders to act upon the agreement of merger or consolidation (or, in the case of a merger pursuant to § 251(h), as of immediately prior to the execution of the agreement of merger), were either: (i) listed on a national securities exchange or (ii) held of record by more than 2,000 holders; and further provided that no appraisal rights shall be available for any shares of stock of the constituent corporation surviving a merger if the merger did not require for its approval the vote of the stockholders of the surviving corporation as provided in § 251(f) of this title.

(2) Notwithstanding paragraph (b)(1) of this section, appraisal rights under this section shall be available for the shares of any class or series of stock of a constituent corporation if the holders thereof are required by the terms of an agreement of merger or consolidation pursuant to §§ 251, 252, 254, 255, 256, 257, 258, 263 and 264 of this title to accept for such stock anything except:

a. Shares of stock of the corporation surviving or resulting from such merger or consolidation, or depository receipts in respect thereof;

b. Shares of stock of any other corporation, or depository receipts in respect thereof, which shares of stock (or depository receipts in respect thereof) or depository receipts at the effective date of the merger or consolidation will be either listed on a national securities exchange or held of record by more than 2,000 holders;

c. Cash in lieu of fractional shares or fractional depository receipts described in the foregoing paragraphs (b)(2)a. and b. of this section; or

d. Any combination of the shares of stock, depository receipts and cash in lieu of fractional shares or fractional depository receipts described in the foregoing paragraphs (b)(2)a., b. and c. of this section.

(3) In the event all of the stock of a subsidiary Delaware corporation party to a merger effected under § 253 or § 267 of this title is not owned by the parent immediately prior to the merger, appraisal rights shall be available for the shares of the subsidiary Delaware corporation.

(4) In the event of an amendment to a corporation's certificate of incorporation contemplated by § 363(a) of this title, appraisal rights shall be available as contemplated by § 363(b) of this title, and the procedures of this section, including those set forth in subsections (d) and (e) of this section, shall apply as nearly as practicable, with the word "amendment" substituted for the words "merger or consolidation," and the word "corporation" substituted for the words "constituent corporation" and/or "surviving or resulting corporation."

(c) Any corporation may provide in its certificate of incorporation that appraisal rights under this section shall be available for the shares of any class or series of its stock as a result of an amendment to its certificate of incorporation, any merger or consolidation in which the corporation is a constituent corporation or the sale of all or substantially all of the assets of the corporation. If the certificate of incorporation contains such a provision, the provisions of this section, including those set forth in subsections (d), (e), and (g) of this section, shall apply as nearly as is practicable.

(d) Appraisal rights shall be perfected as follows:

(1) If a proposed merger or consolidation for which appraisal rights are provided under this section is to be submitted for approval at a meeting of stockholders, the corporation, not less than 20 days prior to the meeting, shall notify each of its stockholders who was such on the record date for notice of such meeting (or such members who received notice in accordance with § 255(c) of this title) with respect to shares for which appraisal rights are available pursuant to subsection (b) or (c) of this section that appraisal rights are available for any or all of the shares of the constituent corporations, and shall include in such notice a copy of this section and, if one of the constituent corporations is a nonstock corporation, a copy of § 114 of this title. Each stockholder electing to demand the appraisal of such stockholder's shares shall deliver to the corporation, before the taking of the vote on the merger or consolidation, a written demand for appraisal of such stockholder's shares; provided that a demand may be delivered to the corporation by electronic transmission if directed to an information processing system (if any) expressly designated for that purpose in such notice. Such demand will be sufficient if it reasonably informs the corporation of the identity of the stockholder and that the stockholder intends thereby to demand the appraisal of such stockholder's shares. A proxy or vote against the merger or consolidation shall not constitute such a demand. A stockholder electing to take such action must do so by a separate written demand as herein provided. Within 10 days after the effective date of such merger or consolidation, the surviving or resulting corporation shall notify each stockholder of each constituent corporation who has complied with this subsection and has not voted in favor of or consented to the merger or consolidation of the date that the merger or consolidation has become effective; or

(2) If the merger or consolidation was approved pursuant to § 228, § 251(h), § 253, or § 267 of this title, then either a constituent corporation before the effective date of the merger or consolidation or the surviving or resulting corporation within 10 days thereafter shall notify each of the holders of any class or series of stock of such constituent corporation who are entitled to appraisal rights of the approval of the merger or consolidation and that appraisal rights are available for any or all shares of such class or series of stock of such constituent corporation, and shall include in such notice a copy of this section and, if 1 of the constituent corporations is a nonstock corporation, a copy of § 114 of this title. Such notice may, and, if given on or after the effective date of the merger or consolidation, shall, also notify such stockholders of the effective date of the merger or consolidation. Any stockholder entitled to appraisal rights may, within 20 days after the date of giving such notice or, in the case of a merger approved pursuant to § 251(h) of this title, within the later of the consummation of the offer contemplated by § 251(h) of this title and 20 days after the

date of giving such notice, demand in writing from the surviving or resulting corporation the appraisal of such holder's shares; provided that a demand may be delivered to the corporation by electronic transmission if directed to an information processing system (if any) expressly designated for that purpose in such notice. Such demand will be sufficient if it reasonably informs the corporation of the identity of the stockholder and that the stockholder intends thereby to demand the appraisal of such holder's shares. If such notice did not notify stockholders of the effective date of the merger or consolidation, either (i) each such constituent corporation shall send a second notice before the effective date of the merger or consolidation notifying each of the holders of any class or series of stock of such constituent corporation that are entitled to appraisal rights of the effective date of the merger or consolidation or (ii) the surviving or resulting corporation shall send such a second notice to all such holders on or within 10 days after such effective date; provided, however, that if such second notice is sent more than 20 days following the sending of the first notice or, in the case of a merger approved pursuant to § 251(h) of this title, later than the later of the consummation of the offer contemplated by § 251(h) of this title and 20 days following the sending of the first notice, such second notice need only be sent to each stockholder who is entitled to appraisal rights and who has demanded appraisal of such holder's shares in accordance with this subsection. An affidavit of the secretary or assistant secretary or of the transfer agent of the corporation that is required to give either notice that such notice has been given shall, in the absence of fraud, be prima facie evidence of the facts stated therein. For purposes of determining the stockholders entitled to receive either notice, each constituent corporation may fix, in advance, a record date that shall be not more than 10 days prior to the date the notice is given, provided, that if the notice is given on or after the effective date of the merger or consolidation, the record date shall be such effective date. If no record date is fixed and the notice is given prior to the effective date, the record date shall be the close of business on the day next preceding the day on which the notice is given.

(e) Within 120 days after the effective date of the merger or consolidation, the surviving or resulting corporation or any stockholder who has complied with subsections (a) and (d) of this section hereof and who is otherwise entitled to appraisal rights, may commence an appraisal proceeding by filing a petition in the Court of Chancery demanding a determination of the value of the stock of all such stockholders. Notwithstanding the foregoing, at any time within 60 days after the effective date of the merger or consolidation, any stockholder who has not commenced an appraisal proceeding or joined that proceeding as a named party shall have the right to withdraw such stockholder's demand for appraisal and to accept the terms offered upon the merger or consolidation. Within 120 days after the effective date of the merger or consolidation, any stockholder who has complied with the requirements of subsections (a) and (d) of this section hereof, upon request given in writing (or by electronic transmission directed to an information processing system (if any) expressly designated for that purpose in the notice of appraisal), shall be entitled to receive from the corporation surviving the merger or resulting from the consolidation a statement setting forth the aggregate number of shares not voted in favor of the merger or consolidation (or, in the case of a merger approved pursuant to § 251(h) of this title, the aggregate number of shares (other than any excluded stock (as defined in § 251(h)(6)d. of this title)) that were the subject of, and were not tendered into, and accepted for purchase or exchange in, the offer referred to in § 251(h)(2)), and, in either case, with respect to which demands for appraisal have been received and the aggregate number of holders of such shares. Such statement shall be given to the stockholder within 10 days after such stockholder's request for such a statement is received by the surviving or resulting corporation or within 10 days after expiration of the period for delivery of demands for appraisal under subsection (d) of this section hereof, whichever is later. Notwithstanding subsection (a) of this section, a person who is the beneficial owner of shares of such stock held either in a voting trust or by a nominee on behalf of such person may, in such person's own name, file a petition or request from the corporation the statement described in this subsection.

(f) Upon the filing of any such petition by a stockholder, service of a copy thereof shall be made upon the surviving or resulting corporation, which shall within 20 days after such service file in the office of the

Register in Chancery in which the petition was filed a duly verified list containing the names and addresses of all stockholders who have demanded payment for their shares and with whom agreements as to the value of their shares have not been reached by the surviving or resulting corporation. If the petition shall be filed by the surviving or resulting corporation, the petition shall be accompanied by such a duly verified list. The Register in Chancery, if so ordered by the Court, shall give notice of the time and place fixed for the hearing of such petition by registered or certified mail to the surviving or resulting corporation and to the stockholders shown on the list at the addresses therein stated. Such notice shall also be given by one or more publications at least one week before the day of the hearing, in a newspaper of general circulation published in the City of Wilmington, Delaware or such publication as the Court deems advisable. The forms of the notices by mail and by publication shall be approved by the Court, and the costs thereof shall be borne by the surviving or resulting corporation.

(g) At the hearing on such petition, the Court shall determine the stockholders who have complied with this section and who have become entitled to appraisal rights. The Court may require the stockholders who have demanded an appraisal for their shares and who hold stock represented by certificates to submit their certificates of stock to the Register in Chancery for notation thereon of the pendency of the appraisal proceedings; and if any stockholder fails to comply with such direction, the Court may dismiss the proceedings as to such stockholder. If immediately before the merger or consolidation the shares of the class or series of stock of the constituent corporation as to which appraisal rights are available were listed on a national securities exchange, the Court shall dismiss the proceedings as to all holders of such shares who are otherwise entitled to appraisal rights unless (1) the total number of shares entitled to appraisal exceeds 1% of the outstanding shares of the class or series eligible for appraisal, (2) the value of the consideration provided in the merger or consolidation for such total number of shares exceeds $1 million, or (3) the merger was approved pursuant to § 253 or § 267 of this title.

(h) After the Court determines the stockholders entitled to an appraisal, the appraisal proceeding shall be conducted in accordance with the rules of the Court of Chancery, including any rules specifically governing appraisal proceedings. Through such proceeding the Court shall determine the fair value of the shares exclusive of any element of value arising from the accomplishment or expectation of the merger or consolidation, together with interest, if any, to be paid upon the amount determined to be the fair value. In determining such fair value, the Court shall take into account all relevant factors. Unless the Court in its discretion determines otherwise for good cause shown, and except as provided in this subsection, interest from the effective date of the merger through the date of payment of the judgment shall be compounded quarterly and shall accrue at 5% over the Federal Reserve discount rate (including any surcharge) as established from time to time during the period between the effective date of the merger and the date of payment of the judgment. At any time before the entry of judgment in the proceedings, the surviving corporation may pay to each stockholder entitled to appraisal an amount in cash, in which case interest shall accrue thereafter as provided herein only upon the sum of (1) the difference, if any, between the amount so paid and the fair value of the shares as determined by the Court, and (2) interest theretofore accrued, unless paid at that time. Upon application by the surviving or resulting corporation or by any stockholder entitled to participate in the appraisal proceeding, the Court may, in its discretion, proceed to trial upon the appraisal prior to the final determination of the stockholders entitled to an appraisal. Any stockholder whose name appears on the list filed by the surviving or resulting corporation pursuant to subsection (f) of this section and who has submitted such stockholder's certificates of stock to the Register in Chancery, if such is required, may participate fully in all proceedings until it is finally determined that such stockholder is not entitled to appraisal rights under this section.

(i) The Court shall direct the payment of the fair value of the shares, together with interest, if any, by the surviving or resulting corporation to the stockholders entitled thereto. Payment shall be so made to each such stockholder, in the case of holders of uncertificated stock forthwith, and the case of holders of shares represented by certificates upon the surrender to the corporation of the certificates

representing such stock. The Court's decree may be enforced as other decrees in the Court of Chancery may be enforced, whether such surviving or resulting corporation be a corporation of this State or of any state.

(j) The costs of the proceeding may be determined by the Court and taxed upon the parties as the Court deems equitable in the circumstances. Upon application of a stockholder, the Court may order all or a portion of the expenses incurred by any stockholder in connection with the appraisal proceeding, including, without limitation, reasonable attorney's fees and the fees and expenses of experts, to be charged pro rata against the value of all the shares entitled to an appraisal.

(k) From and after the effective date of the merger or consolidation, no stockholder who has demanded appraisal rights as provided in subsection (d) of this section shall be entitled to vote such stock for any purpose or to receive payment of dividends or other distributions on the stock (except dividends or other distributions payable to stockholders of record at a date which is prior to the effective date of the merger or consolidation); provided, however, that if no petition for an appraisal shall be filed within the time provided in subsection (e) of this section, or if such stockholder shall deliver to the surviving or resulting corporation a written withdrawal of such stockholder's demand for an appraisal and an acceptance of the merger or consolidation, either within 60 days after the effective date of the merger or consolidation as provided in subsection (e) of this section or thereafter with the written approval of the corporation, then the right of such stockholder to an appraisal shall cease. Notwithstanding the foregoing, no appraisal proceeding in the Court of Chancery shall be dismissed as to any stockholder without the approval of the Court, and such approval may be conditioned upon such terms as the Court deems just; provided, however that this provision shall not affect the right of any stockholder who has not commenced an appraisal proceeding or joined that proceeding as a named party to withdraw such stockholder's demand for appraisal and to accept the terms offered upon the merger or consolidation within 60 days after the effective date of the merger or consolidation, as set forth in subsection (e) of this section.

(l) The shares of the surviving or resulting corporation to which the shares of such objecting stockholders would have been converted had they assented to the merger or consolidation shall have the status of authorized and unissued shares of the surviving or resulting corporation.

Annex D

CALIFORNIA CORPORATION LAW
DISSENTERS' RIGHTS

CHAPTER 13 OF THE CALIFORNIA CORPORATIONS CODE

1300.

(a) If the approval of the outstanding shares (Section 152) of a corporation is required for a reorganization under subdivisions (a) and (b) or subdivision (e) or (f) of Section 1201, each shareholder of the corporation entitled to vote on the transaction and each shareholder of a subsidiary corporation in a short-form merger may, by complying with this chapter, require the corporation in which the shareholder holds shares to purchase for cash at their fair market value the shares owned by the shareholder which are dissenting shares as defined in subdivision (b). The fair market value shall be determined as of the day of, and immediately prior to, the first announcement of the terms of the proposed reorganization or short-form merger, excluding any appreciation or depreciation in consequence of the proposed reorganization or short-form merger, as adjusted for any stock split, reverse stock split, or share dividend that becomes effective thereafter.

(b) As used in this chapter, "dissenting shares" means shares to which all of the following apply:

(1) That were not, immediately prior to the reorganization or short-form merger, listed on any national securities exchange certified by the Commissioner of Business Oversight under subdivision (o) of Section 25100, and the notice of meeting of shareholders to act upon the reorganization summarizes this section and Sections 1301, 1302, 1303, and 1304; provided, however, that this provision does not apply to any shares with respect to which there exists any restriction on transfer imposed by the corporation or by any law or regulation; and provided, further, that this provision does not apply to any shares where the holder of those shares is required, by the terms of the reorganization or short-form merger, to accept for the shares anything except: (A) shares of any other corporation, which shares, at the time the reorganization or short-form merger is effective, are listed on any national securities exchange certified by the Commissioner of Business Oversight under subdivision (o) of Section 25100; (B) cash in lieu of fractional shares described in the foregoing subparagraph (A); or (C) any combination of the shares and cash in lieu of fractional shares described in the foregoing subparagraphs (A) and (B).

(2) That were outstanding on the date for the determination of shareholders entitled to vote on the reorganization and

(A) were not voted in favor of the reorganization or, (B) if described in paragraph (1), were voted against the reorganization, or were held of record on the effective date of a short-form merger; provided, however, that subparagraph (A) rather than subparagraph (B) of this paragraph applies in any case where the approval required by Section 1201 is sought by written consent rather than at a meeting.

(3) That the dissenting shareholder has demanded that the corporation purchase at their fair market value, in accordance with Section 1301.

(4) That the dissenting shareholder has submitted for endorsement, in accordance with Section 1302.

(c) As used in this chapter, "dissenting shareholder" means the recordholder of dissenting shares and includes a transferee of record.

1301.

(a) If, in the case of a reorganization, any shareholders of a corporation have a right under Section 1300, subject to compliance with paragraphs (3) and (4) of subdivision (b) thereof, to require the corporation to purchase their

shares for cash, that corporation shall mail to each of those shareholders a notice of the approval of the reorganization by its outstanding shares (Section 152) within 10 days after the date of that approval, accompanied by a copy of Sections 1300, 1302, 1303, and 1304 and this section, a statement of the price determined by the corporation to represent the fair market value of the dissenting shares, and a brief description of the procedure to be followed if the shareholder desires to exercise the shareholder's right under those sections. The statement of price constitutes an offer by the corporation to purchase at the price stated any dissenting shares as defined in subdivision (b) of Section 1300, unless they lose their status as dissenting shares under Section 1309.

(b) Any shareholder who has a right to require the corporation to purchase the shareholder's shares for cash under Section 1300, subject to compliance with paragraphs (3) and (4) of subdivision (b) thereof, and who desires the corporation to purchase shares shall make written demand upon the corporation for the purchase of those shares and payment to the shareholder in cash of their fair market value. The demand is not effective for any purpose unless it is received by the corporation or any transfer agent thereof (1) in the case of shares described in subdivision (b) of Section 1300, not later than the date of the shareholders' meeting to vote upon the reorganization, or (2) in any other case, within 30 days after the date on which the notice of the approval by the outstanding shares pursuant to subdivision (a) or the notice pursuant to subdivision (h) of Section 1110 was mailed to the shareholder.

(c) The demand shall state the number and class of the shares held of record by the shareholder which the shareholder demands that the corporation purchase and shall contain a statement of what the shareholder claims to be the fair market value of those shares as determined pursuant to subdivision (a) of Section 1300. The statement of fair market value constitutes an offer by the shareholder to sell the shares at that price.

1302.

Within 30 days after the date on which notice of the approval by the outstanding shares or the notice pursuant to subdivision (h) of Section 1110 was mailed to the shareholder, the shareholder shall submit to the corporation at its principal office or at the office of any transfer agent thereof, (a) if the shares are certificated securities, the shareholder's certificates representing any shares which the shareholder demands that the corporation purchase, to be stamped or endorsed with a statement that the shares are dissenting shares or to be exchanged for certificates of appropriate denomination so stamped or endorsed or (b) if the shares are uncertificated securities, written notice of the number of shares which the shareholder demands that the corporation purchase. Upon subsequent transfers of the dissenting shares on the books of the corporation, the new certificates, initial transaction statement, and other written statements issued therefor shall bear a like statement, together with the name of the original dissenting holder of the shares.

1303.

(a) If the corporation and the shareholder agree that the shares are dissenting shares and agree upon the price of the shares, the dissenting shareholder is entitled to the agreed price with interest thereon at the legal rate on judgments from the date of the agreement. Any agreements fixing the fair market value of any dissenting shares as between the corporation and the holders thereof shall be filed with the secretary of the corporation.

(b) Subject to the provisions of Section 1306, payment of the fair market value of dissenting shares shall be made within 30 days after the amount thereof has been agreed or within 30 days after any statutory or contractual conditions to the reorganization are satisfied, whichever is later, and in the case of certificated securities, subject to surrender of the certificates therefor, unless provided otherwise by agreement.

1304.

(a) If the corporation denies that the shares are dissenting shares, or the corporation and the shareholder fail to agree upon the fair market value of the shares, then the shareholder demanding purchase of such shares as

dissenting shares or any interested corporation, within six months after the date on which notice of the approval by the outstanding shares (Section 152) or notice pursuant to subdivision (h) of Section 1110 was mailed to the shareholder, but not thereafter, may file a complaint in the superior court of the proper county praying the court to determine whether the shares are dissenting shares or the fair market value of the dissenting shares or both or may intervene in any action pending on such a complaint.

(b) Two or more dissenting shareholders may join as plaintiffs or be joined as defendants in any such action and two or more such actions may be consolidated.

(c) On the trial of the action, the court shall determine the issues. If the status of the shares as dissenting shares is in issue, the court shall first determine that issue. If the fair market value of the dissenting shares is in issue, the court shall determine, or shall appoint one or more impartial appraisers to determine, the fair market value of the shares.

1305.

(a) If the court appoints an appraiser or appraisers, they shall proceed forthwith to determine the fair market value per share. Within the time fixed by the court, the appraisers, or a majority of them, shall make and file a report in the office of the clerk of the court. Thereupon, on the motion of any party, the report shall be submitted to the court and considered on such evidence as the court considers relevant. If the court finds the report reasonable, the court may confirm it.

(b) If a majority of the appraisers appointed fail to make and file a report within 10 days from the date of their appointment or within such further time as may be allowed by the court or the report is not confirmed by the court, the court shall determine the fair market value of the dissenting shares.

(c) Subject to the provisions of Section 1306, judgment shall be rendered against the corporation for payment of an amount equal to the fair market value of each dissenting share multiplied by the number of dissenting shares which any dissenting shareholder who is a party, or who has intervened, is entitled to require the corporation to purchase, with interest thereon at the legal rate from the date on which judgment was entered.

(d) Any such judgment shall be payable forthwith with respect to uncertificated securities and, with respect to certificated securities, only upon the endorsement and delivery to the corporation of the certificates for the shares described in the judgment. Any party may appeal from the judgment.

(e) The costs of the action, including reasonable compensation to the appraisers to be fixed by the court, shall be assessed or apportioned as the court considers equitable, but, if the appraisal exceeds the price offered by the corporation, the corporation shall pay the costs (including in the discretion of the court attorneys' fees, fees of expert witnesses and interest at the legal rate on judgments from the date of compliance with Sections 1300, 1301 and 1302 if the value awarded by the court for the shares is more than 125 percent of the price offered by the corporation under subdivision (a) of Section 1301).

1306.

To the extent that the provisions of Chapter 5 prevent the payment to any holders of dissenting shares of their fair market value, they shall become creditors of the corporation for the amount thereof together with interest at the legal rate on judgments until the date of payment, but subordinate to all other creditors in any liquidation proceeding, such debt to be payable when permissible under the provisions of Chapter 5.

1307.

Cash dividends declared and paid by the corporation upon the dissenting shares after the date of approval of the reorganization by the outstanding shares (Section 152) and prior to payment for the shares by the corporation shall be credited against the total amount to be paid by the corporation therefor.

1308.

Except as expressly limited in this chapter, holders of dissenting shares continue to have all the rights and privileges incident to their shares, until the fair market value of their shares is agreed upon or determined. A dissenting shareholder may not withdraw a demand for payment unless the corporation consents thereto.

1309.

Dissenting shares lose their status as dissenting shares and the holders thereof cease to be dissenting shareholders and cease to be entitled to require the corporation to purchase their shares upon the happening of any of the following:

(a) The corporation abandons the reorganization. Upon abandonment of the reorganization, the corporation shall pay on demand to any dissenting shareholder who has initiated proceedings in good faith under this chapter all necessary expenses incurred in such proceedings and reasonable attorneys' fees.

(b) The shares are transferred prior to their submission for endorsement in accordance with Section 1302 or are surrendered for conversion into shares of another class in accordance with the articles.

(c) The dissenting shareholder and the corporation do not agree upon the status of the shares as dissenting shares or upon the purchase price of the shares, and neither files a complaint or intervenes in a pending action as provided in Section 1304, within six months after the date on which notice of the approval by the outstanding shares or notice pursuant to subdivision (h) of Section 1110 was mailed to the shareholder.

(d) The dissenting shareholder, with the consent of the corporation, withdraws the shareholder's demand for purchase of the dissenting shares.

1310.

If litigation is instituted to test the sufficiency or regularity of the votes of the shareholders in authorizing a reorganization, any proceedings under Sections 1304 and 1305 shall be suspended until final determination of such litigation.

1311.

This chapter, except Section 1312, does not apply to classes of shares whose terms and provisions specifically set forth the amount to be paid in respect to such shares in the event of a reorganization or merger.

1312.

(a) No shareholder of a corporation who has a right under this chapter to demand payment of cash for the shares held by the shareholder shall have any right at law or in equity to attack the validity of the reorganization or short-form merger, or to have the reorganization or short-form merger set aside or rescinded, except in an action to test whether the number of shares required to authorize or approve the reorganization have been legally voted in favor thereof; but any holder of shares of a class whose terms and provisions specifically set forth the amount to be paid in respect to them in the event of a reorganization or short-form merger is entitled to payment in accordance with those terms and provisions or, if the principal terms of the reorganization are approved pursuant to subdivision (b) of Section 1202, is entitled to payment in accordance with the terms and provisions of the approved reorganization.

(b) If one of the parties to a reorganization or short-form merger is directly or indirectly controlled by, or under common control with, another party to the reorganization or short-form merger, subdivision (a) shall not apply to

any shareholder of such party who has not demanded payment of cash for such shareholder's shares pursuant to this chapter; but if the shareholder institutes any action to attack the validity of the reorganization or short-form merger or to have the reorganization or short-form merger set aside or rescinded, the shareholder shall not thereafter have any right to demand payment of cash for the shareholder's shares pursuant to this chapter. The court in any action attacking the validity of the reorganization or short-form merger or to have the reorganization or short-form merger set aside or rescinded shall not restrain or enjoin the consummation of the transaction except upon 10 days' prior notice to the corporation and upon a determination by the court that clearly no other remedy will adequately protect the complaining shareholder or the class of shareholders of which such shareholder is a member.

(c) If one of the parties to a reorganization or short-form merger is directly or indirectly controlled by, or under common control with, another party to the reorganization or short-form merger, in any action to attack the validity of the reorganization or short-form merger or to have the reorganization or short-form merger set aside or rescinded, (1) a party to a reorganization or short-form merger which controls another party to the reorganization or short-form merger shall have the burden of proving that the transaction is just and reasonable as to the shareholders of the controlled party, and (2) a person who controls two or more parties to a reorganization shall have the burden of proving that the transaction is just and reasonable as to the shareholders of any party so controlled.

1313.

A conversion pursuant to Chapter 11.5 (commencing with Section 1150) shall be deemed to constitute a reorganization for purposes of applying the provisions of this chapter, in accordance with and to the extent provided in Section 1159.

Annex E

CERTIFICATE OF AMENDMENT OF

AMENDED AND RESTATED CERTIFICATE OF INCORPORATION

OF

TOCAGEN INC.

Martin J. Duvall, hereby certifies that:

ONE: He is the duly elected and acting Chief Executive Officer of Tocagen Inc. (the "Company"), a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware (the "DGCL").

TWO: The date of filing of the Company's original certificate of incorporation with the Delaware Secretary of State was August 24, 2007.

THREE: The board of directors of the Company, acting in accordance with the provisions of Sections 141 and 242 of the DGCL, adopted resolutions amending its current Amended and Restated Certificate of Incorporation as follows:[1]

Paragraph A of Article IV of the Company's Amended and Restated Certificate of Incorporation is hereby amended to add the following at the end of Paragraph A, which shall read in its entirety as follows:

"Effective at 5:00 p.m., Eastern time, on the date this Certificate of Amendment to the Amended and Restated Certificate of Incorporation is filed with the Secretary of State of the State of Delaware (the "Effective Time"), each [***eight (8), nine (9), ten (10), eleven (11), twelve (12), thirteen (13), fourteen (14), fifteen (15)***] shares of the Company's Common Stock, par value $0.001 per share, issued and outstanding immediately prior to the Effective Time ("Old Common Stock") shall, automatically and without any action on the part of the Company or the respective holders thereof, be combined and reclassified into one (1) share of Common Stock, par value $0.001 per share, of the Company ("New Common Stock"). Notwithstanding the immediately preceding sentence, no fractional shares of New Common Stock shall be issued in the reclassification and, in lieu thereof, upon receipt after the Effective Time by the exchange agent selected by the Company of a properly completed and duly executed transmittal letter and, where shares are held in certificated form, the surrender of the stock certificate(s) formerly representing shares of Old Common Stock, any stockholder who would otherwise be entitled to a fractional share of New Common Stock as a result of the foregoing combination and reclassification of the Old Common Stock (such combination and reclassification, the "Reverse Stock Split"), following the Effective Time (after taking into account all fractional shares of New Common Stock otherwise issuable to such stockholder), shall be entitled to receive a cash payment (without interest) equal to the fractional share of New Common Stock to which such stockholder would otherwise be entitled

[1] These amendments approve the combination and reclassification of any whole number of shares of the Company's common stock between and including eight (8) and fifteen (15) into one (1) share of the Company's common stock. By these amendments, the stockholders would approve each of the eight (8) alternate amendments proposed by the Company's board of directors. If the reverse stock split proposal is approved by stockholders, the Certificate of Amendment filed with the Secretary of State of the State of Delaware will include only that reverse stock split ratio determined by the Company's board of directors to be in the best interests of the Company and its stockholders. The other amendments will be abandoned pursuant to Section 242(c) of the General Corporation Law of the State of Delaware. The Company's board of directors may also elect not to effect any reverse stock split, in which case all eight (8) proposed alternate amendments will be abandoned.

multiplied by the closing sales price of a share of the Company's Common Stock (as adjusted to give effect to the Reverse Stock Split) as reported on The Nasdaq Stock Market, LLC on the date this Certificate of Amendment to the Amended and Restated Certificate of Incorporation is filed with the Secretary of State of the State of Delaware. Each stock certificate that, immediately prior to the Effective Time, represented shares of Old Common Stock shall, from and after the Effective Time, automatically and without any action on the part of the Company or the respective holders thereof, represent that number of whole shares of New Common Stock into which the shares of Old Common Stock represented by such certificate shall have been combined and reclassified (as well as the right to receive cash in lieu of any fractional shares of New Common Stock as set forth above); *provided*, *however*, that each holder of record of a certificate that represented shares of Old Common Stock shall receive, upon surrender of such certificate, a new certificate representing the number of whole shares of New Common Stock into which the shares of Old Common Stock represented by such certificate shall have been combined and reclassified, as well as any cash in lieu of fractional shares of New Common Stock to which such holder may be entitled as set forth above."

FOUR: Thereafter, pursuant to a resolution by the Company's board of directors, this Certificate of Amendment was submitted to the stockholders of the Company for their approval in accordance with the provisions of Section 211 and 242 of the DGCL and was approved. Accordingly, this Certificate of Amendment has been adopted in accordance with Section 242 of the DGCL.

[signature page follows]

IN WITNESS WHEREOF, this Certificate of Amendment of Amended and Restated Certificate of Incorporation has been duly executed by an authorized officer of the Company on , 2020.

TOCAGEN INC.

Martin J. Duvall, Chief Executive Officer

PART II
INFORMATION NOT REQUIRED IN PROXY STATEMENT/PROSPECTUS/INFORMATION STATEMENT

Item 20—Indemnification and Officers

Under Section 145 of the Delaware General Corporation Law (the "DGCL"), Tocagen Inc. ("Tocagen") has broad powers to indemnify its directors and officers against liabilities they may incur in such capacities, including liabilities under the Securities Act of 1933, as amended (the "Securities Act"). Section 145 of the DGCL generally provides that a Delaware corporation has the power to indemnify its present and former directors, officers, employees and agents against expenses incurred by them in connection with any suit to which they are or are threatened to be made, a party by reason of their serving in such positions so long as they acted in good faith and in a manner they reasonably believed to be in or not opposed to, the best interests of the corporation and, with respect to any criminal action, they had no reasonable cause to believe their conduct was unlawful.

Tocagen's amended and restated certificate of incorporation and amended and restated bylaws include provisions that (i) eliminate the personal liability of its directors for monetary damages resulting from breaches of their fiduciary duty to the fullest extent permitted under applicable law, (ii) require it to indemnify its directors and executive officers to the fullest extent permitted by the DGCL or other applicable law and (iii) provide it with the power, in its discretion, to indemnify its other officers, employees and other agents as set forth in the DGCL or other applicable law. Tocagen believes that these provisions of its amended and restated certificate of incorporation and amended and restated bylaws are necessary to attract and retain qualified persons as directors and officers. These provisions do not eliminate Tocagen's directors' or officers' duty of care, and, in appropriate circumstances, equitable remedies such as injunctive or other forms of non-monetary relief will remain available under the DGCL. In addition, each director will continue to be subject to liability pursuant to Section 174 of the DGCL, for breach of such director's duty of loyalty to Tocagen, for acts or omissions not in good faith or involving intentional misconduct, for knowing violations of law, for acts or omissions that such director believes to be contrary to Tocagen's best interests or the best interests of its stockholders, for any transaction from which such director derived an improper personal benefit, for acts or omissions involving a reckless disregard for such director's duty to Tocagen or to its stockholders when such director was aware or should have been aware of a risk of serious injury to Tocagen or to its stockholders, for acts or omission that constitute an unexcused pattern of inattention that amounts to an abdication of such director's duty to Tocagen or to its stockholders, for improper transactions between such director and Tocagen and for improper loans to directors and officers. These provisions also do not affect a director's responsibilities under any other law, such as the federal securities law or state or federal environmental laws.

As permitted by Delaware law, Tocagen has entered into indemnification agreements with each of its current directors and officers pursuant to the foregoing provisions. Tocagen has an insurance policy covering its officers and directors with respect to certain liabilities, including liabilities arising under the Securities Act or otherwise.

Item 21—Exhibits

(a) Exhibit Index

A list of exhibits filed with this Registration Statement on Form S-4 is set forth on the Exhibit Index and is incorporated herein by reference.

(b) Financial Statements

The financial statements filed with this Registration Statement on Form S-4 are set forth on the Financial Statement Index and are incorporated herein by reference.

Item 22—Undertakings

(a) The undersigned registrant hereby undertakes as follows:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) to include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) to reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement; notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) to include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of securities, in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser: (i) any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424; (ii) any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant; (iii) the portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and (iv) any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(5) That, for purposes of determining any liability under the Securities Act of 1933, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in this registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(6) That prior to any public reoffering of the securities registered hereunder through use of a prospectus which is a part of this registration statement, by any person or party who is deemed to be an underwriter within the meaning of Rule 145(c), the issuer undertakes that such reoffering prospectus will contain the information called for by the applicable registration form with respect to reofferings by persons who may be deemed underwriters, in addition to the information called for by the other items of the applicable form.

(7) That every prospectus (i) that is filed pursuant to paragraph (5) immediately preceding, or (ii) that purports to meet the requirements of Section 10(a)(3) of the Securities Act of 1933 and is used in connection with an offering of securities subject to Rule 415, will be filed as a part of an amendment to the registration statement and will not be used until such amendment is effective, and that, for purposes of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(8) To respond to requests for information that is incorporated by reference into this prospectus pursuant to Items 4, 10(b), 11, or 13 of this form, within one (1) business day of receipt of such request, and to send the incorporated documents by first class mail or other equally prompt means; this includes information contained in documents filed subsequent to the effective date of this registration statement through the date of responding to the request.

(9) To supply by means of a post-effective amendment all information concerning a transaction, and the company being acquired involved therein, that was not the subject of and included in this registration statement when it became effective.

(10) Insofar as indemnification for liabilities under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933 and is therefore unenforceable. In the event a claim of indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in a successful defense of any action, suit or proceeding) is asserted by such director, officer, or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933 and will be governed by the final adjudication of such issue.

INDEX TO EXHIBITS

Exhibit	Description
2.1**	Agreement and Plan of Merger and Reorganization, dated February 19, 2020, by and among the Registrant, Telluride Merger Sub, Inc. and Forte Biosciences, Inc., incorporated by reference to Exhibit 2.1 of the Registrant's Current Report on Form 8-K filed on February 20, 2020.
2.2	Form of Forte Biosciences, Inc.'s Support Agreement, dated February 19, 2020, by and between Forte Biosciences, Inc. and each of the parties named in each agreement therein, incorporated by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K filed on February 20, 2020.
2.3	Form of Registrant's Support Agreement, dated February 19, 2020, by and between the Registrant and each of the parties named in each agreement therein, incorporated by reference to Exhibit 10.2 of the Registrant's Current Report on Form 8-K filed on February 20, 2020.
2.4	Form of Lock-Up Agreement, dated February 19, 2020, by each of the parties named in each agreement therein, incorporated by reference to Exhibit 10.3 of the Registrant's Current Report on Form 8-K filed on February 20, 2020.
3.1	Amended and Restated Certificate of Incorporation of the Registrant, incorporated by reference to Exhibit 3.1 of the Registrant's Current Report on Form 8-K filed on April 19, 2017.
3.2	Amended and Restated Bylaws of the Registrant, incorporated by reference to Exhibit 3.2 of the Registrant's Current Report on Form 8-K filed on April 19, 2017.
4.1	Form of Common Stock Certificate of the Registrant, incorporated by reference to Exhibit 4.1 of the Registrant's Registration Statement on Form S-1 (File No. 333-216574), as amended, originally filed on March 9, 2017.
4.2†	Research and Development Grant Agreement, dated June 5, 2013, by and between the Registrant and Voices Against Brain Cancer, incorporated by reference to Exhibit 4.3 of the Registrant's Registration Statement on Form S-1 (File No. 333-216574), as amended, originally filed on March 9, 2017.
4.3	Warrant to Purchase Stock, dated October 30, 2015, issued to Oxford Finance LLC, incorporated by reference to Exhibit 4.4 of the Registrant's Registration Statement on Form S-1 (File No. 333-216574), as amended, originally filed on March 9, 2017.
4.4	Warrant to Purchase Stock, dated October 30, 2015, issued to Silicon Valley Bank, incorporated by reference to Exhibit 4.5 of the Registrant's Registration Statement on Form S-1 (File No. 333-216574), as amended, originally filed on March 9, 2017.
4.5	Warrant to Purchase Common Stock, dated May 18, 2018, issued to Oxford Finance LLC, incorporated by reference to Exhibit 4.6 of the Registrant's Quarterly Report on Form 10-Q filed on August 9, 2018.
4.6	Warrant to Purchase Common Stock, dated May 18, 2018, issued to Oxford Finance LLC, incorporated by reference to Exhibit 4.7 of the Registrant's Quarterly Report on Form 10-Q filed on August 9, 2018.
4.7	Warrant to Purchase Common Stock, dated May 18, 2018, issued to Oxford Finance LLC, incorporated by reference to Exhibit 4.8 of the Registrant's Quarterly Report on Form 10-Q filed on August 9, 2018.
4.8	Warrant to Purchase Common Stock, dated May 18, 2018, issued to Silicon Valley Bank, incorporated by reference to Exhibit 4.9 of the Registrant's Quarterly Report on Form 10-Q filed on August 9, 2018.
5.1*	Opinion of Cooley LLP regarding the validity of the securities.
8.1*	Opinion of Cooley LLP regarding tax matters.
8.2*	Opinion of Wilson Sonsini Goodrich & Rosati, P.C. regarding tax matters.

Exhibit	Description
10.1+	Form of Indemnity Agreement by and between the Registrant and its directors and officers, incorporated by reference to Exhibit 10.1 of the Registrant's Registration Statement on Form S-1 (File No. 333-216574), as amended, originally filed on March 9, 2017.
10.2+	Tocagen Inc. 2009 Equity Incentive Plan and Forms of Option Grant Notice, Option Agreement and Notice of Exercise thereunder, as amended, incorporated by reference to Exhibit 10.2 of the Registrant's Registration Statement on Form S-1 (File No. 333-216574), as amended, originally filed on March 9, 2017.
10.3+	Tocagen Inc. 2017 Equity Incentive Plan, as amended, and Forms of Stock Option Grant Notice, Option Agreement and Notice of Exercise thereunder, incorporated by reference to Exhibit 10.3 of the Registrant's Annual Report on Form 10-K filed on February 27, 2019.
10.4+	Tocagen Inc. 2017 Employee Stock Purchase Plan, incorporated by reference to Exhibit 10.4 of the Registrant's Registration Statement on Form S-1 (File No. 333-216574), as amended, originally filed on March 9, 2017.
10.5†	Laboratory Services and License Agreement, effective as of November 17, 2011, by and between the Registrant and Siemens Healthcare Diagnostics Inc., incorporated by reference to Exhibit 10.7 of the Registrant's Registration Statement on Form S-1 (File No. 333-216574), as amended, originally filed on March 9, 2017.
10.6†	First Amendment to Laboratory Services and License Agreement, effective as of June 19, 2015, by and between the Registrant and Siemens Healthcare Diagnostics Inc., incorporated by reference to Exhibit 10.8 of the Registrant's Registration Statement on Form S-1 (File No. 333-216574), as amended, originally filed on March 9, 2017.
10.7†	License Agreement, effective as of October 22, 2007, by and between the Registrant and University of Southern California, incorporated by reference to Exhibit 10.9 of the Registrant's Registration Statement on Form S-1 (File No. 333-216574), as amended, originally filed on March 9, 2017.
10.8+	Tocagen Inc. Annual Incentive Plan, incorporated by reference to Exhibit 10.1 of the Registrant's Quarterly Report on Form 10-Q filed on August 9, 2017.
10.9+	Tocagen Inc. Amended and Restated Non-Employee Director Compensation Policy, incorporated by reference to Exhibit 10.11 of the Registrant's Annual Report on Form 10-K filed on March 9, 2018.
10.10+	Amended and Restated Executive Employment Agreement, dated February 21, 2020, by and between the Registrant and Martin J. Duvall, incorporated by reference to Exhibit 10.10 of the Registrant's Annual Report on Form 10-K filed on February 27, 2020.
10.11+	Amended and Restated Executive Employment Agreement, dated February 21, 2020, by and between the Registrant and Mark Foletta, incorporated by reference to Exhibit 10.11 of the Registrant's Annual Report on Form 10-K filed on February 27, 2020.
10.12+	Amended and Restated Executive Employment Agreement, dated February 21, 2020, by and between the Registrant and Douglas Jolly, Ph.D., incorporated by reference to Exhibit 10.12 of the Registrant's Annual Report on Form 10-K filed on February 27, 2020.
10.13	Lease Agreement by and between the Registrant and AP3-SD1 Campus Point LLC, dated December 21, 2017, incorporated by reference to Exhibit 10.16 of the Registrant's Annual Report on Form 10-K filed on March 9, 2018.
10.14†	License Agreement, dated April 18, 2018, by and among the Registrant, Beijing Apollo Venus Biomedical Technology Limited and ApolloBio Corp., incorporated by reference to Exhibit 10.1 of the Registrant's Quarterly Report on Form 10-Q filed on August 9, 2018.

Exhibit	Description
10.15+	Form of Restricted Stock Unit Grant Notice and Agreement, incorporated by reference to Exhibit 10.18 of the Registrant's Annual Report on Form 10-K filed on February 27, 2020.
10.16	First Amendment to Lease Agreement, dated December 16, 2019, by and between the Registrant and AP3-SD1 Campus Point LLC, incorporated by reference to Exhibit 10.20 of the Registrant's Annual Report on Form 10-K filed on February 27, 2020.
10.17+	Amended and Restated Executive Employment Agreement, dated February 21, 2020, by and between the Registrant and Fairooz Kabbinavar M.D., incorporated by reference to Exhibit 10.21 of the Registrant's Annual Report on Form 10-K filed on February 27, 2020.
10.18*††	License Agreement, dated December 10, 2017, by and between Forte and the U.S. Department of Health and Human Services, as represented by the National Institute of Allergy and Infectious Diseases.
10.19*+	Forte Biosciences, Inc. 2018 Equity Incentive Plan, as amended, and Forms of Stock Option Agreement, Exercise Notice and Investment Representation Statement thereunder.
10.20*+	Offer Letter, dated December 14, 2018, by and between Forte and Paul A. Wagner.
10.21*+	Offer Letter, dated March 16, 2020, by and between Forte and Antony Riley.
23.1*	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm to the Registrant.
23.2*	Consent of Mayer Hoffman McCann P.C., Independent Registered Public Accounting Firm to Forte Biosciences, Inc.
23.3*	Consent of Cooley LLP (included as part of its opinion filed as Exhibits 5.1 and 8.1 hereto and incorporated herein by reference).
23.4*	Consent of Wilson Sonsini Goodrich & Rosati, P.C. (included as part of its opinion filed as Exhibit 8.2 hereto and incorporated herein by reference).
24.1#	Power of Attorney (included on signature page).
99.1*	Opinion of Ladenburg Thalmann & Co. Inc., financial advisor to Tocagen Inc., dated February 19, 2020 (included as Annex B to the proxy statement/prospectus/information statement forming part of this Registration Statement)
99.2*	Consent of Ladenburg Thalmann & Co. Inc., financial advisor to the Registrant.
99.3*	Proposed Amendment to Amended and Restated Certificate of the Registrant (included as Annex E to the proxy statement/prospectus/information statement forming a part of this Registration Statement).
99.4##	Form of Proxy Card for the Tocagen's Special Meeting of Stockholders.
99.5##	Consent of Paul Wagner, Ph.D., as designee to the board of directors.
99.6##	Consent of Lawrence F. Eichenfield, M.D., as designee to the board of directors.
99.7##	Consent of Martin J. Duvall, as designee to the board of directors.
99.8##	Consent of Thomas E. Darcy, as designee to the board of directors.
99.9##	Consent of Steven Kornfeld, as designee to the board of directors.
99.10##	Consent of Patricia Walker, M.D., Ph.D., as designee to the board of directors.
99.11##	Consent of Donald A. Williams, as designee to the board of directors.
101.INS#	XBRL Instance Document

Exhibit	Description
101.SCH#	XBRL Taxonomy Extension Schema Document
101.CAL#	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF#	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB#	XBRL Taxonomy Extension Label Linkbase Document
101.PRE#	XBRL Taxonomy Extension Presentation Linkbase Document

* Filed herewith.
\# Previously filed.
To be filed by amendment.
\+ Indicates management contract or compensatory plan.
† Confidential treatment has been granted with respect to certain portions of this exhibit. Omitted portions have been filed separately with the Securities and Exchange Commission.
†† Certain portions of this exhibit (indicated by "[***]") have been omitted as the Registrant has determined (i) the omitted information is not material and (ii) the omitted information would likely cause harm to the Registrant if publicly disclosed.
** Schedules and exhibits have been omitted pursuant to Item 601(b)(2) of Regulation S-K. A copy of any omitted schedule and/or exhibit will be furnished to the Securities and Exchange Commission upon request.

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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of San Diego, State of California on April 27, 2020.

TOCAGEN INC.
By: /s/ MARTIN J. DUVALL

Martin J. Duvall
Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Martin J. Duvall **Martin J. Duvall**	Chief Executive Officer and Member of the Board of Directors *(Principal Executive Officer)*	April 27, 2020
/s/ Mark Foletta **Mark Foletta**	Chief Financial Officer *(Principal Financial and Accounting Officer)*	April 27, 2020
/s/ Faheem Hasnain* **Faheem Hasnain**	Chairman of the Board of Directors	April 27, 2020
/s/ Franklin M. Berger* **Franklin M. Berger**	Member of the Board of Directors	April 27, 2020
/s/ Thomas E. Darcy* **Thomas E. Darcy**	Member of the Board of Directors	April 27, 2020
/s/ Lori Kunkel, M.D.* **Lori Kunkel, M.D.**	Member of the Board of Directors	April 27, 2020
/s/ David Parkinson, M.D.* **David Parkinson, M.D.**	Member of the Board of Directors	April 27, 2020
/s/ Paul Schimmel, Ph.D.* **Paul Schimmel, Ph.D.**	Member of the Board of Directors	April 27, 2020

By: /s/ Mark Foletta
Mark Foletta
Attorney-in-Fact

* Pursuant to Power of Attorney.

Exhibit 5.1

Cooley

Karen Elizabeth Deschaine
+1 858 550 6088
kdeschaine@cooley.com

April 27, 2020

Tocagen Inc.
4445 Eastgate Mall, Suite 200
San Diego, CA 92121

Ladies and Gentlemen:

We have represented Tocagen Inc., a Delaware Corporation (the "***Company***"), in connection with the filing by the Company of a registration statement on Form S-4 (No. 333-237371) (the "***Registration Statement***") with the Securities and Exchange Commission (the "***Commission***") under the Securities Act of 1933, as amended (the "***Securities Act***"). The Registration Statement provides for the registration by the Company of up to 152,355,380 shares (the "***Shares***") of the Company's common stock, par value $0.001 per share, which includes up to 33,851,183 shares of the Company's common stock issuable upon the exercise of certain warrants (the "***Warrants***"), to be issued (i) upon consummation of and/or (ii) following the merger (the "***Merger***") of Telluride Merger Sub, Inc., a Delaware corporation, and a wholly owned subsidiary of the Company ("***Merger Sub***"), with and into Forte Biosciences, Inc., a Delaware corporation ("***Forte***"), with Forte surviving the merger as a wholly owned subsidiary of the Company, pursuant to that certain Agreement and Plan of Merger and Reorganization, dated as of February 19, 2020, by and among the Company, Merger Sub, and Forte (the "***Merger Agreement***").

In connection with this opinion, we have examined and relied upon the Registration Statement in the form filed with the Commission, the Merger Agreement, the Company's Amended and Restated Certificate of Incorporation, and Amended and Restated Bylaws, each as currently in effect, and such other documents, records, certificates, memoranda and other instruments as in our judgment are necessary or appropriate to enable us to render the opinion expressed below. We have assumed the genuineness and authenticity of all documents submitted to us as originals, and the conformity to originals of all documents submitted to us as copies thereof. As to certain factual matters, we have relied upon a certificate of an officer of the Company and have not sought independently to verify such matters.

Our opinion is expressed only with respect to the General Corporation Law of the State of Delaware. We express no opinion as to whether the laws of any particular jurisdiction are applicable to the subject matter hereof. We are not rendering any opinion as to compliance with any federal or state law, rule or regulation relating to securities, or to the sale or issuance thereof.

In rendering this opinion, we have assumed that, before the issuance of the Shares, the conditions to consummating the transactions contemplated by the Merger Agreement will have been satisfied or duly waived, all approvals for the issuance of the Shares referred to in the Registration Statement have become effective and that no shares of capital stock of the Company are issued or commitments to issue capital stock made by the Company prior to effectiveness of the Merger Agreement, other than as expressly permitted by the Merger Agreement.

On the basis of the foregoing, and in reliance thereon, we are of the opinion that the Shares, when the Registration Statement has been declared effective and the Shares have been issued and paid for in the manner contemplated by, and upon the terms and conditions set forth in the Registration Statement, the Merger Agreement and the Warrants, as applicable, will be validly issued, fully paid and nonassessable.

We consent to the reference to our firm under the caption "Legal Matters" in the proxy statement/prospectus/information statement included in the Registration Statement and to the filing of this opinion as an exhibit to the Registration Statement. In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act and the rules and regulations of the Commission promulgated thereunder. This opinion speaks only as of its date, and we undertake no (and hereby disclaim any) obligation to update this opinion.

Sincerely,

Cooley LLP

By: */s/ Karen Elizabeth Deschaine*
Karen Elizabeth Deschaine

Exhibit 8.1

April 27, 2020

Tocagen Inc.
4445 Eastgate Mall, Suite 200
San Diego, CA 92121

Ladies and Gentlemen:

We have acted as counsel to Tocagen Inc., a Delaware corporation (the "Acquiror"), in connection with that certain Agreement and Plan of Merger and Reorganization, made and entered into as of February 19, 2020 (the "Merger Agreement"), by and among the Acquiror, Telluride Merger Sub, Inc., a Delaware corporation and direct wholly-owned subsidiary of Acquiror ("Merger Sub"), and Forte Biosciences, Inc., a Delaware corporation (the "Company"), pursuant to which Merger Sub shall be merged with and into the Company (the "Merger"). This opinion is being delivered in connection with the Registration Statement (File No. 333-237371) of the Acquiror on Form S-4 filed on March 25, 2020 with the Securities and Exchange Commission, as amended and supplemented through the date hereof (the "Registration Statement"). This opinion is being rendered pursuant to the requirements of Item 21(a) of Form S-4 under the Securities Act of 1933, as amended. Capitalized terms used herein but not defined shall have the meanings set forth in the Merger Agreement.

In preparing this opinion, we have examined and relied upon the Registration Statement, including the prospectus/offer to exchange, the Merger Agreement, and such other documents as we have deemed necessary or appropriate in order to enable us to render this opinion. In our examination of documents, we have assumed the authenticity of original documents, the accuracy of copies, the genuineness of signatures, and the legal capacity of signatories. We have also assumed that the Merger will be consummated in accordance with the Merger Agreement and as described in the Registration Statement.

In rendering this opinion, we have assumed without investigation or verification that the facts and statements set forth in the Registration Statement and the Merger Agreement are true, correct and complete in all material respects; that the Merger will be completed in accordance with the Merger Agreement and the Registration Statement; that the representations and covenants contained in officer's certificates delivered to us by the Company, Acquiror and Merger Sub are true and accurate; that there is no change in applicable law between the date hereof and the Effective Time of the Merger; that the Merger will qualify as a statutory merger under the DGCL; that any representation in any of the documents referred to herein that is made "to the best of the knowledge and belief" (or similar qualification) of any person or party is true, correct and complete without such qualification; and that, as to all matters for which a person or entity has represented that such person or entity is not a party to, does not have, or is not aware of, any plan, intention, understanding or agreement, there is no such plan, intention, understanding or agreement. Any inaccuracy in, or breach of, any of the aforementioned statements, representations or assumptions could adversely affect our opinion.

Our opinion is based on existing provisions of the Code, Treasury Regulations, judicial decisions, and rulings and other pronouncements of the Internal Revenue Service as in effect on the date of this opinion, all of which are subject to change (possibly with retroactive effect) or reinterpretation. No assurances can be given that a change in the law on which our opinion is based or the interpretation thereof will not occur or that such change will not affect the opinion expressed herein. We undertake no responsibility to advise of any such developments in the law. In addition, our opinion is being delivered prior to the consummation of the Merger and therefore is prospective and dependent on future events.

Based on our examination of the foregoing items and subject to the limitations, qualifications, assumptions and caveats set forth herein and therein, we confirm that the disclosure contained in the Registration Statement under the heading "Material U.S. Federal Income Tax Consequences of the Merger," constitutes our opinion as to the material U.S. federal income tax consequences of the Merger to beneficial owners of Forte capital stock (as defined in the Registration Statement) that receive Tocagen common stock pursuant to the Merger.

No opinion is expressed as to any matter not discussed herein.

We are furnishing this opinion solely in connection with the filing of the Registration Statement, and this opinion is not to be relied upon for any other purpose without our prior written consent. We hereby consent to the use of our name under the heading "Material U.S. Federal Income Tax Consequences of the Merger" in the Registration Statement and to the filing of this opinion as an exhibit to the Registration Statement. In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act of 1933, as amended.

Sincerely,

/s/ COOLEY LLP

Exhibit 8.2

April 27, 2020

Forte Biosciences, Inc.
1124 W Carson Street
MRL Building 3-320
Torrance, CA 90502
Attention: Paul A. Wagner

Re: United States Federal Income Tax Consequences

Ladies and Gentlemen:

We have acted as counsel to Forte Biosciences, Inc., a Delaware corporation (the "Company"), in connection with that certain Agreement and Plan of Merger and Reorganization, made and entered into as of February 19, 2020 (the "Agreement"), by and among Tocagen Inc., a Delaware corporation ("Acquiror"), Telluride Merger Sub, Inc., a Delaware corporation and direct wholly-owned subsidiary of Acquiror ("Merger Sub"), and the Company, pursuant to which Merger Sub shall be merged with and into the Company, and the separate existence of Merger Sub shall cease. The Company will continue as the surviving corporation in the Merger. This opinion is being delivered in connection with the Registration Statement (File No. 333-237371) of the Acquiror on Form S-4 filed on March 25, 2020 with the Securities and Exchange Commission, as amended and supplemented through the date hereof (the "Registration Statement"). This opinion is being rendered pursuant to the requirements of Item 21(a) of Form S-4 under the Securities Act of 1933, as amended. Capitalized terms used herein but not defined shall have the meanings set forth in the Agreement.

In preparing the opinion set forth below, we have examined and reviewed originals or copies, certified or otherwise identified to our satisfaction, of the Agreement, including the exhibits thereto, the Registration Statement, the representation letters of officers of Acquiror, Merger Sub and the Company (each a "Representation Party" and together, the "Representation Parties") to be delivered to us for purposes of this opinion (the "Representation Letters") and such other documents, certificates and records as we have deemed necessary or appropriate as a basis for our opinion. In our examination, we have assumed the genuineness of all signatures, the legal capacity of natural persons, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as certified, conformed, photostatic or electronic copies, and the authenticity of the originals of such latter documents.

In rendering our opinion, we have relied upon statements, representations, warranties and covenants of officers and other representatives of the Representation Parties, and we have assumed that such statements, representations, warranties and covenants, including those set forth in the Representation Letters, are and will continue to be true, correct and complete (and, to the extent relevant, complied with) through the effective time of the Merger without regard to any qualification as to knowledge, belief, intent, or otherwise.

In rendering our opinion, we have assumed, without any independent investigation or examination thereof, that (i) the Merger will be consummated in the manner described in the Agreement and the Registration Statement, will be effective under applicable state law, and that none of the terms or conditions contained therein will be waived or modified and (ii) the Agreement, the Registration Statement and the Representation Letters accurately and completely reflect the facts relating to the Merger. Our opinion assumes and is expressly conditioned on, among other things, the initial and continuing accuracy of the facts, information, covenants, representations and warranties set forth in the documents referred to above, including those set forth in the Representation Letters.

Our opinion is based on the Internal Revenue Code of 1986, as amended (the "Code"), Treasury regulations promulgated thereunder, judicial decisions, published positions of the Internal Revenue Service (the "Service"), and such other authorities as we have considered relevant, all as in effect on the date of this opinion and all of which are subject to change or differing interpretations, possibly with retroactive effect. A change in the authorities upon which our opinion is based could affect the conclusions expressed herein. Moreover, there can be no assurance that positions contrary to our opinion will not be taken by the Service or, if challenged, by a court.

Based upon the foregoing we hereby confirm that, subject to the assumptions, exceptions, limitations and qualifications set forth herein and therein, the disclosure contained in the Registration Statement under the heading "Material U.S. Federal Income Tax Consequences of the Merger," constitutes our opinion as to the material U.S. federal income tax consequences of the Merger to beneficial owners of Forte capital stock (as defined in the Registration Statement) that receive Tocagen common stock (as defined in the Registration Statement) pursuant to the Merger.

Except as expressly set forth above, we express no other opinion. This opinion has been prepared solely in connection with the Registration Statement and may not be relied upon for any other purpose without our prior written consent.

This opinion is expressed as of the date hereof, and we are under no obligation to supplement or revise our opinion to reflect any legal developments, any factual matters arising subsequent to the date hereof, or the impact of any information, document, certificate, record, statement, representation, covenant, or assumption relied upon herein that becomes incorrect or untrue.

In accordance with the requirements of Item 601(b)(23) of Regulation S-K under the Securities Act of 1933, as amended (the "Securities Act"), we hereby consent to the filing of this opinion as an exhibit to the Registration Statement. In giving this consent, we do not admit that we come within the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Securities Exchange Commission (the "SEC") thereunder, nor do we admit that we are experts with respect to any part of the Registration Statement within the meaning of the term "experts" as used in the Securities Act or the rules and regulations of the SEC thereunder.

Very truly yours,

/s/ Wilson Sonsini Goodrich & Rosati, P.C.

Wilson Sonsini Goodrich & Rosati, P.C.

Exhibit 10.18

CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT HAS BEEN OMITTED BECAUSE IT IS BOTH (I) NOT MATERIAL AND (II) WOULD BE COMPETITIVELY HARMFUL IF PUBLICLY DISCLOSED. INFORMATION THAT HAS BEEN OMITTED HAS BEEN NOTED IN THIS DOCUMENT WITH A PLACEHOLDER IDENTIFIED BY THE MARK "[***]".

PUBLIC HEALTH SERVICE

PATENT LICENSE AGREEMENT — *EXCLUSIVE*

This **Agreement** is based on the model Patent License Exclusive Agreement adopted by the U.S. Public Health Service **("PHS")** Technology Transfer Policy Board for use by components of the National Institutes of Health **("NIB"),** the Centers for Disease Control and Prevention **("CDC"),** and the Food and Drug Administration **("FDA"),** which are agencies of the PHS within the Department of Health and Human Services **("HHS").**

This Cover Page identifies the Parties to this **Agreement:**

The U.S. Department of Health and Human Services, as represented by
National Institute of Allergy and Infectious Diseases
an Institute or Center (hereinafter referred to as the **"IC")** of the
National Institutes of Health

and

Forte Biosciences Inc.
hereinafter referred to as the **"Licensee",**
created and operating under the laws of Delaware
Tax ID No.: [***]

A-429-2017

CONFIDENTIAL
NIH Patent License Agreement-*Exclusive*
Model 10-2015 Page 1 of 36 [Final] [Forte Biosciences]

[***] Certain confidential information contained in this document, marked by brackets, has been omitted because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

For the **IC** internal use only:

License Number: L-018-2018

License Application Number: A-429-2017

Serial Number(s) of Licensed Patent(s) or Patent Application(s):

1. US Provisional Application 62/324,762
2. PCT/US2017/028133

Cooperative Research and Development Agreement (CRADA) Number (if a subject invention): None

Additional Remarks: None

Public Benefits(s): The public will benefit from the development of a new therapeutic to treat atopic dermatitis, a chronic inflammatory skin disease that is a cause of considerable economic and social burden. Atopic dermatitis affects ~25% of children in developed and developing countries, so there is a significant population that needs new and effective therapies.

This Patent License Agreement, hereinafter referred to as the **"Agreement",** consists of this Cover Page, an attached **Agreement,** a Signature Page, Appendix A (List of Patent(s) or Patent Application(s)), Appendix B (Fields of Use and Territory), Appendix C (Royalties), Appendix D (Benchmarks and Performance), Appendix E (Commercial Development Plan), Appendix F (Example Royalty Report), and Appendix G (Royalty Payment Options).

A-429-2017

[***] Certain confidential information contained in this document, marked by brackets, has been omitted because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

The **IC** and the **Licensee** agree as follows:

1. BACKGROUND

1.1 In the course of conducting biomedical and behavioral research, the **IC** investigators made inventions that may have commercial applicability.

1.2 By assignment of rights from **IC** employees and other inventors, **HHS,** on behalf of the **Government,** owns intellectual property rights claimed in any United States or foreign patent applications or patents corresponding to the assigned **inventions. HHS** also owns any tangible embodiments of these inventions actually reduced to practice by the **IC.**

1.3 The Secretary of HHS has delegated to the IC the authority to enter into this Agreement for the licensing of rights to these inventions.

1.4 The **IC** desires to transfer these inventions to the private sector through commercialization licenses to facilitate the commercial development of products and processes for public use and benefit.

1.5 The **Licensee** desires to acquire commercialization rights to certain of these inventions in order to develop processes, methods, or marketable products for public use and benefit.

2. DEFINITIONS

2.1 **"Affiliate(s)"** means a corporation or other business entity, which directly or indirectly is controlled by or controls, or is under common control with the **Licensee**. For this purpose, the term "control" shall mean ownership of more than fifty percent (50%) of the voting stock or other ownership interest of the corporation or other business entity, or the power to elect or appoint more than fifty percent (50%) of the members of the governing body of the corporation or other business entity.

2.2 **"Benchmarks"** mean the performance milestones that are set forth in Appendix D.

2.3 **"Commercial Development Plan"** means the written commercialization plan attached as Appendix E.

2.4 **"CRADA"** means a Cooperative Research and Development Agreement.

2.5 **"Fair Value"** means the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date; for the calculation of assignment royalty, the measurement date for **Fair Value** shall be the date when all parties to the assignment have signed the assignment of this **Agreement** per Paragraph 14.7 of this **Agreement.**

2.6 **"FDA"** means the Food and Drug Administration.

[***] Certain confidential information contained in this document, marked by brackets, has been omitted because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

2.7 **"First Commercial Sale"** means the initial transfer by or on behalf of the **Licensee** or its sublicensees of the **Licensed Products** or the initial practice of a **Licensed Process** by or on behalf of the Licensee or its sublicensees in exchange for cash or some equivalent to which value can be assigned for the purpose of determining **Net Sales.**

2.8 **"Government"** means the Government of the United States of America.

2.9 **"Licensed Fields of Use"** means the fields of use identified in Appendix B.

2.10 **"Licensed Patent Rights"** shall mean:

(a) Patent applications (including provisional patent applications and PCT patent applications) or patents listed in Appendix A, all divisions and continuations of these applications, all patents issuing from these applications, divisions, and continuations, and any reissues, reexaminations, and extensions of these patents;

(b) to the extent that the following contain one or more claims directed to the invention or inventions disclosed in 2.9(a):

(i) continuations-in-part of 2.9(a);

(ii) all divisions and continuations of these continuations-in-part;

(iii) all patents issuing from these continuations-in-part, divisions, and continuations;

(iv) priority patent application(s) of 2.9(a); and

(v) any reissues, reexaminations, and extensions of these patents;

(c) to the extent that the following contain one or more claims directed to the invention or inventions disclosed in 2.9(a): all counterpart foreign and U.S. patent applications and patents to 2.9(a) and 2.9(b), including those listed in Appendix A; and

(d) **Licensed Patent Rights** shall *not* include 2.9(b) or 2.9(c) to the extent that they contain one or more claims directed to new matter which is not the subject matter disclosed in 2.9(a).

2.11 **"Licensed Processes"** means processes which, in the course of being practiced, would be within the scope of one or more claims of the **Licensed Patent Rights** that have not been held unpatentable, invalid or unenforceable by an unappealed or unappealable judgment of a court of competent jurisdiction.

2.12 **"Licensed Products"** means tangible materials which, in the course of manufacture, use, sale, or importation, would be within the scope of one or more claims of the **Licensed Patent Rights** that have not been held unpatentable, invalid or unenforceable by an unappealed or unappealable judgment of a court of competent jurisdiction.

[***] Certain confidential information contained in this document, marked by brackets, has been omitted because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

2.13 **"Licensed Territory"** means the geographical area identified in Appendix B.

2.14 "**Net Sales**" means the total gross receipts for sales of **Licensed Products** or practice of **Licensed Processes** by or on behalf of **the Licensee** or its sublicensees**,** and from leasing, renting, or otherwise making the **Licensed Products** available to others without sale or other dispositions, whether invoiced or not, less returns and allowances, packing costs, insurance costs, freight out, taxes or excise duties imposed on the transaction (if separately invoiced), and wholesaler and cash discounts in amounts customary in the trade to the extent actually granted. No deductions shall be made for commissions paid to individuals, whether they are with independent sales agencies or regularly employed by the **Licensee**, or sublicensees, and on its payroll, or for the cost of collections.

2.15 **"Practical Application"** means to manufacture in the case of a composition or product, to practice in the case of a process or method, or to operate in the case of a machine or system; and in each case, under these conditions as to establish that the invention is being utilized and that its benefits are to the extent permitted by law or **Government** regulations available to the public on reasonable terms.

2.16 **"Research License"** means a nontransferable, nonexclusive license to make and to use the **Licensed Products** or the **Licensed Processes** as defined by the **Licensed Patent Rights** for purposes of research and not for purposes of commercial manufacture or distribution or in lieu of purchase.

3. GRANT OF RIGHTS

3.1 The **IC** hereby grants and the Licensee accepts, subject to the terms and conditions of this **Agreement,** an exclusive license under the **Licensed Patent Rights** in the **Licensed Territory** to make and have made, to use and have used, to sell and have sold, to offer to sell, and to import any **Licensed Products** in the **Licensed Fields of Use** and to practice and have practiced any **Licensed Process(es)** in the **Licensed Fields of Use.**

3.2 **This Agreement** confers no license or rights by implication, estoppel, or otherwise under any patent applications or patents of the **IC other than the Licensed Patent Rights** regardless of whether these patents are dominant or subordinate to the **Licensed Patent Rights.**

4. SUBLICENSING

4.1 Upon written approval, which shall include prior review of any sublicense agreement by the **IC** and which shall not be unreasonably withheld, the Licensee may enter into sublicensing agreements under the **Licensed Patent Rights.**

4.2 The **Licensee** agrees that any sublicenses granted by it shall provide that the obligations to the **IC** of Paragraphs 5.1-5.4, 8.1, 10.1, 10.2, 12.5, and 13.8-1310 of this **Agreement** shall be binding upon the sublicensee as if it were a party to this **Agreement.** The Licensee further agrees to attach copies of these Paragraphs to all sublicense agreements.

[***] Certain confidential information contained in this document, marked by brackets, has been omitted because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

4.3 Any sublicenses granted by the **Licensee** shall provide for the termination of the sublicense, or the conversion to a license directly between the sublicensees and the **IC,** at the option of the sublicensee, upon termination of this Agreement under Article 13. This conversion is subject to the **IC** approval and contingent upon acceptance by the sublicensee of the remaining provisions of this **Agreement.**

4.4 The **Licensee** agrees to forward to the **IC** a complete copy of each fully executed sublicense agreement postmarked within thirty (30) days of the execution of the agreement. To the extent permitted by law, the **IC** agrees to maintain each sublicense agreement in confidence.

5. STATUTORY AND NIH REQUIREMENTS AND RESERVED GOVERNMENT RIGHTS

5.1 (a) the **IC** reserves on behalf of the **Government** an irrevocable, nonexclusive, nontransferable, royalty-free license for the practice of all inventions licensed under the **Licensed Patent Rights** throughout the world by or on behalf of the **Government** and on behalf of any foreign government or international organization pursuant to any existing or future treaty or agreement to which the **Government** is a signatory. Prior to the **First Commercial Sale,** the **Licensee** agrees to provide the IC with reasonable quantities of the Licensed Products or materials made through the **Licensed Processes** for **IC** research use; and

(b) in the event that the **Licensed Patent Rights** are Subject Inventions made under **CRADA**, the **Licensee** grants to the **Government**, pursuant to 15 U.S.C. 3710a(b)(I)(A), a nonexclusive, nontransferable, irrevocable, paid-up license to practice the **Licensed Patent Rights** or have the **Licensed Patent Rights** practiced throughout the world by or on behalf of the **Government**. In the exercise of this license, the **Government** shall not publicly disclose trade secrets or commercial or financial information that is privileged or confidential within the meaning of 5 U.S.C. 552(b)(4) or which would be considered as such if it had been obtained from a non-Federal party. Prior to the **First Commercial Sale**, the Licensee agrees to provide the **IC** with reasonable quantities of the **Licensed Products** or materials made through the **Licensed Processes** for **IC** research use.

5.2 The Licensee agrees that products used or sold in the United States embodying the Licensed Products or produced through use of the Licensed Processes shall be manufactured substantially in the United States, unless a written waiver is obtained in advance from the IC.

5.3 The **Licensee** acknowledges that the IC may enter into future **CRADAs** under the Federal Technology Transfer Act of 1986 that relate to the subject matter of this **Agreement**. The **Licensee** agrees not to unreasonably deny requests for a **Research License** from future collaborators with the **IC** when acquiring these rights is necessary in order to make a **CRADA** project feasible. The **Licensee** may request an opportunity to join as a party to the proposed **CRADA.**

5.4 (a) in addition to the reserved license of Paragraph 5.1, the **IC** reserves the right to grant **Research Licenses** directly or to require the **Licensee** to grant **Research Licenses** on

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reasonable terms. The purpose of these **Research Licenses** is to encourage basic research, whether conducted at an academic or corporate facility. In order to safeguard the **Licensed Patent Rights**, however, the **IC** shall consult with the **Licensee** before granting to commercial entities a **Research License** or providing to them research samples of materials made through the **Licensed Processes** ; and

(b) in exceptional circumstances, and in the event that the **Licensed Patent Rights** are Subject Inventions made under a **CRADA**, the **Government,** pursuant to 15 U.S.C. 3710a(b)(l)(B). retains the right to require the Licensee to grant to a responsible applicant a nonexclusive, partially exclusive, or exclusive sublicense to use the **Licensed Patent Rights** in the **Licensed Field of Use** on terms that are reasonable under the circumstances, or if the **Licensee** fails to grant this license, the **Government** retains the right to grant the license itself. The exercise of these rights by the **Government** shall only be in exceptional circumstances and **only** if the **Government** determines:

(i) the action is necessary to meet health or safety needs that are not reasonably satisfied by the **Licensee;**

(ii) the action is necessary to meet requirements for public use specified by Federal regulations, and these requirements are not reasonably satisfied by the **Licensee;** or

(iii) the **Licensee** has failed to comply with an agreement containing provisions described in 15 U.S.C. 10a(c)(4)(B); and

(c) the determination made by the **Government** under this Paragraph 5.4 is subject to administrative appeal and judicial review under 35 U.S.C. &203(b).

6. ROYALTIES AND REIMBURSEMENT

6.1 The **Licensee** agrees to pay the **IC** a noncreditable, nonrefundable license issue royalty as set forth in Appendix C.

6.2 The **Licensee** agrees to pay the IC a nonrefundable minimum annual royalty as set forth in Appendix C.

6.3 The **Licensee** agrees to pay the **IC** earned royalties as set forth in Appendix C.

6.4 The **Licensee** agrees to pay the **IC** benchmark royalties as set forth in Appendix C.

6.5 The **Licensee** agrees to pay the **IC** sublicensing royalties as set forth in Appendix C.

6.6 A patent or patent application licensed under this **Agreement** shall cease to fall within the **Licensed Patent Rights** for the purpose of computing earned royalty payments in any given country on the earliest of the dates that:

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(a) the application has been abandoned and not continued;

(b) the patent expires or irrevocably lapses, or

(c) the patent has been held to be invalid or unenforceable by an unappealed or unappealable decision of a court of competent jurisdiction or administrative agency.

6.7 No multiple royalties shall be payable because any **Licensed Products** or **Licensed Processes** are covered by more than one of the **Licensed Patent Rights.**

6.8 On sales of the **Licensed Products** by the **Licensee** to sublicensees or on sales made in other than an arms-length transaction, the value of the **Net Sales** attributed under this Article 6 to this transaction shall be that which would have been received in an arms-length transaction, based on sales of like quantity and quality products on or about the time of this transaction.

6.9 With regard to unreimbursed expenses associated with the preparation, filing, prosecution, and maintenance of all patent applications and patents included within the **Licensed Patent Rights** and paid by the **IC** prior to the effective date of this **Agreement,** the **Licensee** shall pay the **IC,** as an additional royalty, within sixty (60) days of the **IC's** submission of a statement and request for payment to the **Licensee,** an amount equivalent to these unreimbursed expenses previously paid by the **IC.**

6.10 With regard to unreimbursed expenses associated with the preparation, filing, prosecution, and maintenance of all patent applications and patents included within the **Licensed Patent Rights** and paid by the **IC** on or after the effective date of this **Agreement,** the **IC,** at its sole option, may require the **Licensee:**

(a) to pay the **IC** on an annual basis, within sixty (60) days of the **IC's** submission of a statement and request for payment, a royalty amount equivalent to these unreimbursed expenses paid during the previous calendar year**(s);**

(b) to pay these unreimbursed expenses directly to the law firm employed by the **IC** to handle these functions. However, in this event, the **IC** and not the **Licensee** shall be the client of the law firm; or

(c) in limited circumstances, the **Licensee** may be given the right **to** assume responsibility for the preparation, filing, prosecution, or maintenance of any patent application or patent included with the **Licensed Patent Rights.** In that event, the **Licensee** shall directly pay the attorneys or agents engaged to prepare, file, prosecute, or maintain these patent applications or patents and shall provide the **IC** with copies of each invoice associated with these services as well as documentation that these invoices have been paid.

6.11 The **IC** agrees, upon written request, to provide the **Licensee** with summaries of patent prosecution invoices for which the **IC** has requested payment from the **Licensee** under Paragraphs 6.9 and 6.10. The **Licensee** agrees that all information provided by the **IC** related to patent prosecution costs shall be treated as confidential commercial information and shall not be released to a third party except as required by law or a court of competent jurisdiction.

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6.12 The **Licensee** may elect to surrender its rights in any country of the **Licensed Territory** under any of the **Licensed Patent Rights** upon ninety (90) days written notice to the **IC** and owe no payment obligation under Paragraph 6.10 for patent-related expenses paid in that country after ninety (90) days of the effective date of the written notice.

7. PATENT FILING, PROSECUTION, AND MAINTENANCE

7.1 Except as otherwise provided in this Article 7, the **IC** agrees to take responsibility for, but to consult with, the Licensee in the preparation, filing, prosecution, and maintenance of any and all patent applications or patents included in the **Licensed Patent Rights** and shall furnish copies of relevant patent-related documents to the **Licensee.**

7.2 Upon the IC's written request, the Licensee shall assume the responsibility for the preparation, filing, prosecution, and maintenance **of** any and all patent applications or patents included in the **Licensed Patent Rights** and shall, on an ongoing basis, promptly furnish copies of all patent-related documents to the **IC.** In this event, the **Licensee** shall, subject to the prior approval of the **IC, s**elect registered patent attorneys or patent agents to provide these services on behalf of the **Licensee** and the **IC.** The **IC** shall provide appropriate powers of attorney and other documents necessary to undertake this action to the patent attorneys or patent agents providing these services. The **Licensee** and its attorneys or agents shall consult with the **IC** in all aspects of the preparation, filing, prosecution and maintenance of patent applications and patents included within the **Licensed Patent Rights** and shall provide the **IC** sufficient opportunity to comment on any document that the **Licensee** intends to file or to cause to be filed with the relevant intellectual property or patent office.

7.3 At any time, the **IC** may provide the **Licensee** with written notice that the **IC** wishes to assume control of the preparation, filing, prosecution, and maintenance of any and all patent applications or patents included in the **Licensed Patent Rights**. If the **IC** elects to reassume these responsibilities, the **Licensee** agrees to cooperate fully with the **IC**, its attorneys, and agents in the preparation, filing, prosecution, and maintenance of any and all patent applications or patents included in the **Licensed Patent Rights** and to provide the **IC** with complete copies of any and all documents or other materials that the **IC** deems necessary to undertake such responsibilities. The **Licensee** shall be responsible for all costs associated with transferring patent prosecution responsibilities to an attorney or agent of the **IC's** choice.

7.4 Each party shall promptly inform the other as to all matters that come to its attention that may affect the preparation, filing, prosecution, or maintenance of the **Licensed Patent Rights** and permit each other to provide comments and suggestions with respect to the preparation, filing, prosecution, and maintenance of the **Licensed Patent Rights**, which comments and suggestions shall be considered by the other party.

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8. RECORD KEEPING

8.1 The **Licensee** agrees to keep accurate and correct records of the **Licensed Products** made, used, sold, or imported and the **Licensed Processes** practiced under this **Agreement** appropriate to determine the amount of royalties due the **IC**. These records shall be retained for at least five (5) years following a given reporting period and shall be available during normal business hours for inspection, at the expense of the **IC**, by an accountant or other designated auditor selected by the **IC** for the sole purpose of verifying reports and royalty payments hereunder. The accountant or auditor shall only disclose to the **IC** information relating to the accuracy of reports and royalty payments made under this Agreement. If an inspection shows an underreporting or underpayment in excess of five percent (5%) for any twelve (12) month period, then the **Licensee** shall reimburse the **IC** for the cost of the inspection at the time the Licensee pays the unreported royalties, including any additional royalties as required by Paragraph 9.8. All royalty payments required under this Paragraph shall be due within sixty (60) days of the date the **IC** provides to the **Licensee** notice of the payment due.

9. REPORTS ON PROGRESS. BENCHMARKS, SALES, AND PAYMENTS

9.1 Prior to signing this **Agreement**, the **Licensee** has provided the **IC** with the **Commercial Development Plan** in Appendix E, under which the **Licensee** intends to bring the subject matter of the **Licensed Patent Rights** to the point of **Practical Application**. This **Commercial Development Plan** is hereby incorporated by reference into this Agreement. Based on this plan, performance **Benchmarks** are determined as specified in Appendix D.

9.2 The **Licensee** shall provide written annual reports on its product development progress or efforts to commercialize under **the Commercial Development Plan for each of the Licensed Fields of Use** within sixty (60) days after December 31 of each calendar year. These progress reports shall include, but not be limited to: progress on research and development, status of applications for regulatory approvals, manufacture and status of sublicensing, marketing, importing, and sales during the preceding calendar year, as well as, plans for the present calendar year. The IC also encourages these reports to include information on any of the Licensee's public service activities that relate to the Licensed Patent Rights. If reported progress differs from that projected in the **Commercial Development Plan** and **Benchmarks,** the **Licensee** shall explain the reasons for these differences. In the annual report, the **Licensee** may propose amendments to the **Commercial Development Plan,** acceptance of which by the **IC** may not be denied unreasonably. The **Licensee** agrees to provide any additional information reasonably required by the **IC** to evaluate the **Licensee's** performance under this **Agreement.** The **Licensee** may amend the **Benchmarks** at any time upon written approval by the **IC**. The **IC** shall not unreasonably withhold approval of any request of the **Licensee** to extend the time periods of this schedule if the request is supported by a reasonable showing by the Licensee of diligence in its performance under the **Commercial Development Plan and** toward bringing the **Licensed Products** to the point of **Practical Application** as defined in 37 C.F.R. §404.3(d). The **Licensee** shall amend the **Commercial Development Plan** and **Benchmarks** at the request of the **IC** to address any **Licensed Fields of Use** not specifically addressed in the plan originally submitted.

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9.3 The **Licensee** shall report to the **IC** the dates for achieving **Benchmarks** specified in Appendix D and the **First Commercial Sale** in each country in the **Licensed Territory** within thirty (30) days of such occurrences.

9.4 The **Licensee** shall submit to the **IC,** within sixty (60) days after each calendar half-year ending June 30 and December 31, a royalty report, as described in the example in Appendix F, setting forth for the preceding half-year period the amount of the **Licensed Products** sold or **Licensed Processes** practiced by or on behalf of the **Licensee** in each country within the **Licensed Territory**, the **Net Sales**, and the amount of royalty accordingly due. With each royalty report, the **Licensee** shall submit payment of earned royalties due. If no earned royalties are due to the IC for any reporting period, the written report shall so state. The royalty report shall be certified as correct by an authorized officer of the **Licensee** and shall include a detailed listing of all deductions made under Paragraph 2.13 to determine **Net Sales** made under Article 6 to determine royalties due. The royalty report shall also identify the site of manufacture for the **Licensed Product(s)** sold in the United States.

9.5 The **Licensee** agrees to forward semi-annually to the **IC** a copy of these reports received by the **Licensee** from its sublicensees during the preceding half-year period as shall be pertinent to a royalty accounting to the **IC** by the **Licensee** for activities under the sublicense.

9.6 Royalties due under Article 6 shall be paid in U.S. dollars and payment options are listed in Appendix G. For conversion of foreign currency to U.S. dollars, the conversion rate shall be the New York foreign exchange rate quoted in *The Wall Street Journal* on the day that the payment is due. Any loss of exchange, value, taxes, or other expenses incurred in the transfer or conversion to U.S. dollars shall be paid entirely by the **Licensee**. The royalty report required by Paragraph 9.4 shall be mailed to the **IC** at its address for **Agreement** Notices indicated on the Signature Page.

9.7 The **Licensee** shall be solely responsible for determining if any tax on royalty income is owed outside the United States and shall pay the tax and be responsible for all filings with appropriate agencies of foreign governments.

9.8 Additional royalties may be assessed by the **IC on** any payment that is more than ninety (90) days overdue at the rate of one percent (1%) per month. This one percent **(1%)** per month rate may be applied retroactively from the original due date until the date of receipt by the **IC** of the overdue payment and additional royalties. The payment of any additional royalties shall not prevent the **IC** from exercising any other rights it may have as a consequence of the lateness of any payment.

9.9 All plans and reports required by this Article 9 and marked "confidential" by the **Licensee** shall, to the extent permitted by law, be treated by the **IC** as commercial and financial information obtained from a person and as privileged and confidential, and any proposed disclosure of these records by the **IC** under the Freedom of Information Act (FOIA), 5 U.S.C. §552 shall be subject to the predisclosure notification requirements of 45 C.F.R. §5.65(d).

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10. PERFORMANCE

10.1 The **Licensee** shall use its reasonable commercial efforts to bring the **Licensed Products** and the **Licensed Processes** to **Practical Application.** "Reasonable commercial efforts" for the purposes of this provision shall include adherence to the **Commercial Development Plan** in Appendix E and performance of the **Benchmarks** in Appendix D. The efforts of a sublicensee shall be considered the efforts of the **Licensee**.

10.2 Upon the **First Commercial** Sale, until the expiration or termination of this **Agreement,** the **Licensee** shall use its reasonable commercial efforts to make the **Licensed Products** and the **Licensed Processes** reasonably accessible to the United States public.

10.3 The **Licensee** agrees, after its **First Commercial Sale**, to make reasonable quantities of the **Licensed Products** or materials produced through the use of the **Licensed Processes** available to patient assistance programs.

10.4 The **Licensee** agrees, after its **First Commercial Sale** and as part of its marketing and product promotion, to develop educational materials (e.g., brochures, website, etc.) directed to patients and physicians detailing the **Licensed Products** or medical aspects of the prophylactic and therapeutic uses of the **Licensed Products**.

10.5 The **Licensee** agrees to supply, to the Mailing Address for **Agreement** Notices indicated on the Signature Page, the Office of Technology Transfer, **NIH** with inert samples of the **Licensed Products** or the **Licensed Processes** or their packaging for educational and display purposes only.

11. INFRINGEMENT AND PATENT ENFORCEMENT

11.1 The **IC** and the **Licensee** agree to notify each other promptly of each infringement or possible infringement of the **Licensed Patent Rights,** as well as, any facts which may affect the validity, scope, or enforceability of the **Licensed Patent Rights** of which either party becomes aware.

11.2 Pursuant to this **Agreement** and the provisions of 35 U.S.C. Chapter 29, the Licensee may:

(a) bring suit in its own name, at its own expense, and on its own behalf for infringement of presumably valid claims in the **Licensed Patent Rights;**

(b) in any suit, enjoin infringement and collect for its use, damages, profits, and awards of whatever nature recoverable for the infringement; or

(c) settle any claim or suit for infringement of the **Licensed Patent Rights** provided, however, that the **IC** and appropriate **Government** authorities shall have the first right to take such actions; and

(d) if the **Licensee** desires to initiate a suit for patent infringement, the **Licensee** shall notify the **IC** in writing. If the **IC** does not notify the **Licensee** of its intent to pursue legal action within ninety (90) days, the **Licensee** shall be free to initiate suit. The **IC** shall have a continuing right to intervene in the suit. The **Licensee** shall take no

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action to compel the **Government** either to initiate or to join in any suit for patent infringement. The **Licensee** may request the **Government** to initiate or join in any suit if necessary to avoid dismissal of the suit. Should the **Government** be made a party to any suit, the **Licensee** shall reimburse the **Government** for any costs, expenses, or fees which the **Government** incurs as a result of the motion or other action, including all costs incurred by the **Government in opposing** the motion or other action. In all cases, the **Licensee** agrees to keep the **IC** reasonably apprised of the status and progress of any litigation. Before the **Licensee** commences an infringement action, the **Licensee** shall notify the **IC** and give careful consideration to the views of the **IC** and to any potential effects of the litigation on the public health in deciding whether to bring suit.

11.3 In the event that a declaratory judgment action alleging invalidity or non-infringement of any of the **Licensed Patent Rights** shall be brought against the **Licensee** or raised by way of counterclaim or affirmative defense in an infringement suit brought by the **Licensee** under Paragraph 11.2, pursuant to this **Agreement** and the provisions of 35 U.S.C. Chanter 29 or other statutes, the **Licensee** may:

(a) defend the suit in its own name, at its own expense, and on its own behalf for presumably valid claims in the **Licensed Patent Rights;**

(b) in any suit, ultimately to enjoin infringement and to collect for its use, damages, profits, and awards of whatever nature recoverable for the infringement; and

(c) settle any claim or suit for declaratory judgment involving the **Licensed Patent Rights**-provided, however, that the **IC** and appropriate Government authorities shall have the first right to take these actions and shall have a continuing right to intervene in the suit; and

(d) if the **IC** does not notify the **Licensee** of its intent to respond to the legal action within a reasonable time, the **Licensee** shall be free to do so. The **Licensee** shall take no action to compel the **Government** either to initiate or to join in any declaratory judgment action. The **Licensee** may request the **Government** to initiate or to join any suit if necessary to avoid dismissal of the suit. Should the **Government** be made a party to any suit by motion or any other action of the **Licensee**, the **Licensee** shall reimburse the **Government** for any costs, expenses, or fees, which the **Government** incurs as a result of the motion or other action. If the **Licensee** elects not to defend against the declaratory judgment action, the **IC**, at its option, may do so at its own expense. In all cases, the **Licensee** agrees to keep the **IC** reasonably apprised of the status and progress of any litigation. Before the **Licensee** commences an infringement action, the **Licensee** shall notify the **IC** and give careful consideration to the views of the **IC** and to any potential effects of the litigation on the public health in deciding whether to bring suit.

11.4 In any action under Paragraphs 11.2 or 11.3 the expenses including costs, fees, attorney fees, and disbursements, shall be paid by the **Licensee**. The value of any recovery made by the **Licensee** through court judgment or settlement shall be treated as **Net Sales** and subject to earned royalties.

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11.5 The **IC** shall cooperate fully with the **Licensee** in connection with any action under Paragraphs 11.2 or 11.3. The **IC** agrees promptly to provide access to all necessary documents and to render reasonable assistance in response to a request by the **Licensee**.

12. NEGATION OF WARRANTIES AND INDEMNIFICATION

12.1 The **IC** offers no warranties other than those specified in Article 1.

12.2 The **IC** does not warrant the validity of the **Licensed Patent Rights** and makes no representations whatsoever with regard to the scope of the **Licensed Patent Rights**, or that the **Licensed Patent Rights** may be exploited without infringing other patents or other intellectual property rights of third parties.

12.3 THE **IC** MAKES NO WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF ANY SUBJECT MATTER DEFINED BY THE CLAIMS OF THE **LICENSED PATENT RIGHTS** OR TANGIBLE MATERIALS RELATED THERETO.

12.4 The **IC** does not represent that it shall commence legal actions against third parties infringing the **Licensed Patent Rights**.

12.5 The **Licensee** shall indemnify and hold the **IC**, its employees, students, fellows, agents, and consultants harmless from and against all liability, demands, damages, expenses, and losses, including but not limited to death, personal injury, illness, or property damage in connection with or arising out of

(a) the use by or on behalf of the **Licensee**, its sublicensees, directors, employees, or third parties of any **Licensed Patent Rights**; or

(b) the design, manufacture, distribution, or use of any **Licensed Products**, **Licensed Processes** or materials by the **Licensee**, or other products or processes developed in connection with or arising out of the **Licensed Patent Rights**.

12.6 The **Licensee** agrees to maintain a liability insurance program consistent with sound business practice.

13. TERM, TERMINATION, AND MODIFICATION OF RIGHTS

13.1 This **Agreement is** effective when signed by all parties, unless the provisions of Paragraph 14.16 are not fulfilled, and shall extend to the expiration of the last to expire of the **Licensed Patent Rights** unless sooner terminated as provided in this Article 13.

13.2 In the event that the Licensee is in default in the performance of any material obligations under this **Agreement**, including but not limited to the obligations listed in Paragraph 13.5,

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and if the default has not been remedied within ninety (90) days after the date of notice in writing of the default, the **IC** may terminate this **Agreement** by written notice and pursue outstanding royalties owed through procedures provided by the Federal Debt Collection Act.

13.3 In the event that the **Licensee** becomes insolvent, files a petition in bankruptcy, has such a petition filed against it, determines to file a petition in bankruptcy, or receives notice of a third party's intention to file an involuntary petition in bankruptcy, the **Licensee** shall immediately notify the **IC** in writing.

13.4 The **Licensee** shall have a unilateral right to terminate this **Agreement** or any licenses in any country or territory by giving the **IC** sixty (60) days written notice to that effect.

13.5 The **IC** shall specifically have the right to terminate or modify, at its option, this **Agreement,** if the **IC** determines that the **Licensee:**

(a) is not executing the **Commercial Development Plan** submitted with its request for a license and the **Licensee** cannot otherwise demonstrate to the **IC's** satisfaction that the **Licensee** has taken, or can be expected to take within a reasonable time, effective steps to achieve the **Practical Application** of the **Licensed Products** or the **Licensed Processes;**

(b) has not achieved the **Benchmarks** as may be modified under Paragraph 9.2;

(c) has willfully made a false statement of, or willfully omitted a material fact in the license application or in any report required by this **Agreement**;

(d) has committed a material breach of a covenant or agreement contained in this **Agreement;**

(e) is not keeping the **Licensed Products** or the **Licensed Processes** reasonably available to the public after commercial use commences;

(f) cannot reasonably satisfy unmet health and safety needs; or

(g) cannot reasonably justify a failure to comply with the domestic production requirement of Paragraph 5.2 unless waived.

13.6 In making the determination referenced in Paragraph 13.5, the **IC** shall take into account the normal course of such commercial development programs conducted with sound and reasonable business practices and judgment and the annual reports submitted by the **Licensee** under Paragraph 9.2. Prior to invoking termination or modification of this **Agreement** under Paragraph 13.5, the **IC** shall give written notice to the **Licensee** providing the **Licensee** specific notice of, and a ninety (90) day opportunity to respond to, the **IC's** concerns as to the items referenced in 13.5(a)-13.5(g). If the **Licensee** fails to alleviate the **IC's** concerns as to the items referenced in 13.5(a)-13.5(g) or fails to initiate corrective action to the **IC's** satisfaction, the **IC** may terminate this **Agreement**.

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13.7 When the public health and safety so require, and after written notice to the **Licensee** providing the **Licensee** a sixty (60) day opportunity to respond, the **IC** shall have the right to require the **Licensee** to grant sublicenses to responsible applicants, on reasonable terms, in any **Licensed Fields of Use** under the **Licensed Patent Rights**, unless the **Licensee** can reasonably demonstrate that the granting of the sublicense would not materially increase the availability to the public of the subject matter of the **Licensed Patent Rights**. The **IC** shall not require the granting of a sublicense unless the responsible applicant has first negotiated in good faith with the **Licensee**.

13.8 The **IC** reserves the right according to 35 U.S.C. §209(d)(3) to terminate or modify this **Agreement** if it is determined that this action is necessary to meet the requirements for public use specified by federal regulations issued after the date of the license and these requirements are not reasonably satisfied by the **Licensee**.

13.9 Within thirty (30) days of receipt of written notice of the **IC's** unilateral decision to modify or terminate this **Agreement,** the **Licensee** may, consistent with the provisions of 37 C.F.R. §404.11, appeal the decision by written submission to the designated **IC** official or designee. The decision of the designated **IC** official or designee shall be the final agency decision. The **Licensee** may thereafter exercise any and all administrative or judicial remedies that may be accessible.

13.10 Within ninety (90) days of expiration or termination of this **Agreement** under this Article 13, a final report shall be submitted by the **Licensee**. Any royalty payments, including those incurred but not yet paid (such as the full minimum annual royalty), and those related to patent expenses, due to the **IC** shall become immediately due and payable upon termination or expiration. If terminated under this Article 13, sublicensees may elect to convert their sublicenses to direct licenses with the **IC** pursuant to Paragraph 4.3. Unless otherwise specifically provided for under this **Agreement,** upon termination or expiration of this **Agreement,** the **Licensee** shall return all **Licensed Products** or other materials included within the **Licensed Patent Rights** to the **IC** or provide the **IC** with certification of the destruction thereof. The **Licensee** may not be granted additional **IC** licenses if the final reporting requirement is not fulfilled.

14. GENERAL PROVISIONS

14.1 Neither party may waive or release any of its rights or interests in this **Agreement** except in writing. The failure of the **Government** to assert a right hereunder or to insist upon compliance with any term or condition of this **Agreement** shall not constitute a waiver of that right by the **Government** or excuse a similar subsequent failure to perform any of these terms or conditions by the **Licensee**.

14.2 This **Agreement** constitutes the entire agreement between the parties relating to the subject matter of the **Licensed Patent Rights,** the **Licensed Products** and the **Licensed Processes,** and all prior negotiations, representations, agreements, and understandings are merged into, extinguished by, and completely expressed by this **Agreement**.

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14.3 The provisions of this **Agreement** are severable, and in the event that any provision of this **Agreement** shall be determined to be invalid or unenforceable under any controlling body of law, this determination shall not in any way affect the validity or enforceability of the remaining provisions of this **Agreement**.

14.4 If either party desires a modification to this **Agreement,** the parties shall, upon reasonable notice of the proposed modification by the party desiring the change, confer in good faith to determine the desirability of the modification. No modification shall be effective until a written amendment is signed by the signatories to this **Agreement** or their designees.

14.5 The construction, validity, performance, and effect of this **Agreement** shall be governed by Federal law as applied by the Federal courts in the District of Columbia.

14.6 All **Agreement** notices required or permitted by this **Agreement** shall be given by prepaid. first class, registered or certified mail or by an express/overnight delivery service provided by a commercial carrier, properly addressed to the other party at the address designated on the following Signature Page, or to another address as may be designated in writing by the other party. **Agreement** notices shall be considered timely if the notices arc received on or before the established deadline date or sent on or before the deadline date as verifiable by U.S. Postal Service postmark or dated receipt from a commercial carrier. Parties should request a legibly dated U.S. Postal Service postmark or obtain a dated receipt from a commercial carrier or the U.S. Postal Service. Private metered postmarks shall not be acceptable as proof of timely mailing.

14.7 This **Agreement** shall not be assigned or otherwise transferred (including any transfer by legal process or by operation of law, and any transfer in bankruptcy or insolvency, or in any other compulsory procedure or order of court) except to the **Licensee's Affiliate(s)** without the prior Written consent of the **IC**. The parties agree that the identity of the parties is material to the formation of this **Agreement** and that the obligations under this **Agreement** are nondelegable. In the event that the IC approves a proposed assignment, the Licensee shall pay the **IC** as an additional royalty, [***] percent ([***]%) of the **Fair Value** of any consideration received for any assignment of this **Agreement** within sixty (60) days of the assignment.

14.8 The **Licensee** agrees in its use of any **IC**-supplied materials to comply with all applicable statutes, regulations, and guidelines, including **NIH** and **HHS** regulations and guidelines. The **Licensee** agrees not to use the materials for research involving human subjects or clinical trials in the United States without complying with 21 C.E.R. Part 50 and 45 C.F.R. Part 46. The **Licensee** agrees not to use the materials for research involving human subjects or clinical trials outside of the United States without notifying the **IC**, in \wiling, of the research or trials and complying with the applicable regulations of the appropriate national control authorities. Written notification to the **IC** of research involving human subjects or clinical trials outside of the United States shall he given no later than sixty (60) clays prior to commencement of the research or trials.

[***] Certain confidential information contained in this document, marked by brackets, has been omitted because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

14.9 The **Licensee** acknowledges that it is subject to and agrees to abide by the United States laws and regulations (including the Export Administration Act of 1979 and Arms Export Control Act) controlling the export of technical data, computer software, laboratory prototypes, biological material, and other commodities. The transfer of these items may require a license from the appropriate agency of the U.S. **Government** or written assurances by the **Licensee** that it shall not export these items to certain foreign countries without prior approval of this agency. The **IC** neither represents that a license is or is not required or that, if required, it shall be issued.

14.10 The **Licensee** agrees to mark the **Licensed Products** or their packaging sold in the United States with all applicable U.S. patent numbers and similarly to indicate "Patent Pending" status. All the **Licensed Products** manufactured in, shipped to, or sold in other countries shall be marked in a manner to preserve the **IC's** patent rights in those countries.

14.11 By entering into this **Agreement**, the **IC** does not directly or indirectly endorse any product or service provided, or to be provided, by the **Licensee** whether directly or indirectly related to this **Agreement**. The **Licensee** shall not state or imply that this **Agreement** is an endorsement by the **Government**, the **IC**, any other **Government** organizational unit, or any **Government** employee. Additionally, the **Licensee** shall not use the names of the **IC**, the **FDA** or the **HHS** or the **Government** or their employees in any advertising, promotional, or sales literature without the prior written approval of the **IC**.

14.12 The parties agree to attempt to settle amicably any controversy or claim arising under this **Agreement** or a breach of this **Agreement,** except for appeals of modifications or termination decisions provided for in Article 13. The **Licensee** agrees first to appeal any unsettled claims or controversies to the designated IC official, or designee, whose decision shall be considered the final agency decision. Thereafter, the **Licensee** may exercise any administrative or judicial remedies that may be available.

14.13 Nothing relating to the grant of a license, nor the grant itself, shall be construed to confer upon any person any immunity from or defenses under the antitrust laws or from a charge of patent misuse, and the acquisition and use of rights pursuant to 37 C.F.R. Part 404 shall not be immunized from the operation of state or Federal law by reason of the source of the grant.

14.14 Any formal recordation of this **Agreement** required by the laws of any **Licensed Territory** as a prerequisite to enforceability of the **Agreement** in the courts of any foreign jurisdiction or for other reasons shall be carried out by the **Licensee** at its expense, and appropriately verified proof of recordation shall be promptly furnished to the **IC**.

14.15 Paragraphs 4.3, 8.1, 9.5-9.8, 12.1-12.5, 13.9, 13.10, 14.12 and 14.15 of this **Agreement** shall survive termination of this **Agreement**.

14.16 The terms and conditions of this **Agreement** shall, at the **IC's** sole option, be considered by the **IC** to be withdrawn from the **Licensee's** consideration and the terms and conditions of this **Agreement,** and the **Agreement** itself to be null and void, unless this **Agreement** is executed by the **Licensee** and a fully executed original is received by the **IC** within sixty (60) days from the date of the **IC's** signature found at the Signature Page.

[***] Certain confidential information contained in this document, marked by brackets, has been omitted because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

SIGNATURES BEGIN ON NEXT PAGE

[***] Certain confidential information contained in this document, marked by brackets, has been omitted because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

SIGNATURE PAGE

For the **IC:**

/s/ Michael Mowatt 12/5/17
Michael Mowatt, Ph.D Date
Director, Technology Transfer and Intellectual Property Office, NIAID

Mailing Address or E-mail Address for **Agreement** notices and reports:

License Compliance and Administration
Monitoring & Enforcement
Office of Technology Transfer
National Institutes of Health
6011 Executive Boulevard, Suite 325
Rockville, Maryland 20852-3804 U.S.A.
E-mail: [***]

For the **Licensee** (Upon, information and belief, the undersigned expressly certifies or affirms that the contents of any statements of the **Licensee** made or referred to in this document are truthful and accurate.):

By:

/s/ Paul Wagner 12/10/17
Signature of Authorized Official Date
Name: Paul Wagner
Title: Member

I. Official and Mailing Address for **Agreement** notices:

Paul Wagner, Ph.D.
Member

Mailing Address:
[***]
Email Address: [***]
Phone: [***]
Fax: [***]

A-429-2017

[***] Certain confidential information contained in this document, marked by brackets, has been omitted because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

II. Official and Mailing Address for Financial notices (the Licensee's contact person for royalty payments)

Paul Wagner
Member

Address:
[***]
Email Address: [***]
Phone: [***]
Fax: [***]

Any false or misleading statements made, presented, or submitted to the **Government,** including any relevant omissions, under this **Agreement** and during the course of negotiation of this **Agreement** are subject to all applicable civil and criminal statutes including Federal statutes 31 U.S.C. §§3801-3812 (civil liability) and 18 §1001 (criminal liability including fine(s) or imprisonment).

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[***] Certain confidential information contained in this document, marked by brackets, has been omitted because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

APPENDIX A — PATENT(S) OR PATENT APPLICATION(S)

Patent(s) or Patent Application(s):

I. US Provisional Application 62/324,762 [MS Ref #E-099-2016/0-US-01]

II. PCT Patent Application PCT/US2017/028133 [HHS Ref #E-099-2016/0-PCT-02]

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[***] Certain confidential information contained in this document, marked by brackets, has been omitted because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

APPENDIX B — LICENSED FIELDS OF USE AND TERRITORY

I. Licensed Fields of Use:

Use of pharmaceutical and biological compositions comprising Gram-negative bacteria for the topical treatment of dermatological diseases and dermatological conditions.

II. Licensed Territory: Worldwide

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APPENDIX C — ROYALTIES

Royalties:

I. The **Licensee** agrees to pay to the **IC** a noncreditable, nonrefundable license issue royalty in the amount of [***] dollars ($[***]) within sixty (60) days from the effective date of this **Agreement**.

II. The **Licensee** agrees to pay to the IC a nonrefundable minimum annual royalty in the amount of twenty thousand dollars ($20,000) as follows:

(a) The first minimum annual royalty is due within sixty (60) days of the effective date of this Agreement and may be prorated according to the fraction of the calendar year remaining between the effective date of this Agreement and the next subsequent January 1; and

(b) Subsequent minimum annual royalty payments are due and payable on January I of each calendar year and may be credited against any earned royalties due for sales made in that year.

III. The **Licensee** agrees to pay the **IC** earned royalties of [***] percent ([***]%) on **Net Sales** by or on behalf of the **Licensee** and its sublicensees.

IV. The **Licensee** agrees to pay the **IC Benchmark** royalties within sixty (60) days of achieving each **Benchmark:**

(a) [***] dollars ($[***]) upon completion of patient enrollment of a Phase III clinical trial in the **Licensed Field of** Use

(b) [***] dollars ($[***]) upon the completion of a Phase HI clinical trial demonstrating statistical significant efficacy benefit of **Licenced Product**

(c) [***] dollars ($[***]) upon first FDA approval of **Licensed Product.** An additional [***] dollars ($[***]) shall be paid for each additional FDA approved **Licensed Product**

(d) [***] dollars ($[***]) upon first non-U.S. territory approval of **Licensed Product.** An additional [***] dollars ($[***]) shall be paid for each additional non-U.S. territory approval of **Licensed Product**

(e) [***] dollars ($[***]) - First $100 million of annual Net Sales

(f) [***] dollars ($[***]) - First $500 million of annual Net Sales

(g) [***] dollars ($[***]) - First $1,000 million of annual Net Sales

V. The **Licensee** agrees to pay the **IC** additional sublicensing royalties of [***] percent ([***]%) on the **Fair Value** of any consideration received for each sublicense in accordance with Article 4 of this **Agreement** within sixty (60) days of the execution of each sublicense.

[***] Certain confidential information contained in this document, marked by brackets, has been omitted because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

APPENDIX D — BENCHMARKS AND PERFORMANCE

The **Licensee** agrees to the following **Benchmarks** for its performance under this **Agreement** and, within thirty (30) days of achieving a **Benchmark**, shall notify the **IC** that the **Benchmark** has been achieved.

[***]

[***] Certain confidential information contained in this document, marked by brackets, has been omitted because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

APPENDIX E — COMMERCIAL DEVELOPMENT PLAN

Introduction and Overview - Atopic Dermatitis

Atopic dermatitis (AD) is a chronic inflammatory skin disease characterized by pruritus (itching) and xerosis (dry skin). AD pruritis can be severe, leading to changes in the skin, including thickening of the skin (lichenification), breakdown of the skin barrier and scarring. Xerosis in atopic dermatitis results from the disruption of the epidermal integrity and further dysfunction of the skin barrier. Atopic dermatitis lesions present most commonly on the scalp, face and extremities and can vary depending on the degree of inflammation and secondary infection. Both environmental and genetic factors appear to contribute to the pathogenesis of atopic dermatitis with hyper-reactive basophils and mast cells resulting in increased histamine and leukotriene production and elevated serum IgE. Bacterial infections are also common in atopic dermatitis patients and the significant majority of AD patients are colonized with toxin producing S. aureus. S. auerus toxins and superantigen presentation are believed to contribute to the pathogenesis of AD.

According to the American Academy of Dermatology, worldwide, between 10% and 20% of children suffer from atopic dermatitis (AD) and approximately 1% to 3% of adults experience AD. Atopic dermatitis most commonly occurs before the 5th birthday and approximately 50% of children with AD will experience a recurrence in adulthood.

Current Treatment Algorithm

The treatment of atopic dermatitis focuses on addressing the associated pruritus, xerosis, inflammation and infection. For mild breakthrough AD, low to moderate strength topical corticosteroids are used along with antihistimines as needed to address itching. For mild to moderate AD, increased intensity topical corticosteroids are employed along with regular use of antihistimines. If symptoms do not improve, phototherapy and systemic therapies can be administered. According to the AAD guidelines for atopic dermatitis, systemic therapies can include cyclosporine, methotrexate, mycophenolate mofetil, and azathioprine as well as leukotriene inhibitors and oral calcineurin inhibitors. The management of AD with systemic corticosteroids is recommended to be avoided because of adverse side effects and unfavorable risk-benefit of systemic corticosteroids for atopic dermatitis. Treatment of S. aureus infections, which contributes to the AD pathogenesis, can be treated with antibiotics and bleach baths.

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More recently, Regeneron and Sanofi's Dupixent (dupilumab), an antibody targeting the IL-4 receptor alpha, was approved by FDA for the treatment of adult patients with moderate to severe atopic dermatitis whose disease is not adequately controlled with topical prescription therapies or when those therapies are not advisable. Dupixent can be used with or without topical corticosteroids.

DUPIXENT efficacy result

	Trial 1		Trial 2		Trial 3	
	DUPIXENT 300 Q2w	Placebo	DUPIXENT 300 Q2w	Placebo	DUPIXENT 300 Q2w + TCS	Placebo + TCS
Number of subjects randomized (FAS)[a]	224	224	233	236	106	315
IGA O OR 1[D,C]	38%	10%	36%	9%	39%	12%
EASI-75[C]	51%	15%	44%	12%	69%	23%
EASI-90[C]	36%	8%	30%	7%	40%	11%
Number of subjects with baseline Peak Pruritus NAS score ≥4	213	212	225	221	102	299
Peak Pruritus NRS (≥4-point improvement)[C]	41%	12%	36%	10%	59%	20%

a Full Analysis Sol (FAS) includes all subjects randomized
b Responder was defined as a subject with IGA 0 or I ("clear" or almost clear") with a reduction of ≥ on a 0-4 IGA scale
c Subjects who received rescue treatment or with missing data were considered as non-responders

DUPIXENT adverse reaction profile

	DUPIXENT Monotherapy		DUPIXENT + TCS[b]	
Adverse Reaction	DUPIXENT 300 mg Q2W N=529 n (%)	Placebo N=517 n (%)	DUPIXENT 300 mg Q2w + TCS N=110 n (%)	Placebo + TCS N=315 n=(%)
Injection site reactions	51 (10)	28 (5)	11 (10)	18 (6)

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Conjunctivitis[D]	51 (10)	12 (2)	10 (9)	15 (5)
Blepharitis	2 (<1)	1 (<1)	5 (5)	15 (5)
Oral herpes	20 (4)	8 (2)	3 (3)	5 (2)
Keratitis	1 (<1)	0	4 (4)	0
Eye Pruritus	3 (1)	1 (<1)	2 (2)	2 (1)
Other herpes simplex virus infection	10 (2)	6 (1)	1 (1)	1 (<1)
Dry eye	1 (<1)	0	2 (2)	1 (<1)

a pooled analysis of Trials 1, 2, and 4
b analysis of Trial 3 where subjects were on background TCS therapy
c DUPIXENT 600 mg at Week O, followed by 300 mg every two weeks
d Conjunctivitis cluster includes conjunctivitis, allergic conjunctivitis, bacterial conjunctivitis, viral conjunctivitis, giant papillary conjunctivitis, eye irritation and eye inflammation.
e Keratitis cluster includes Keratitis, ulcerative keratitis, allergic keratitis, atopic keratoconjunctivitis and opthalmic herpes simplex.
f Other herpes simplex virus infection cluster includes herpes simplex, genital herpes, herpes simplex oxits eczema, and herpes virus infection, but excludes eczema herpeticum.

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Microbiome transplantation for treatment of patients with atopic dermatitis

Gram-negative microbiota differ between healthy controls and patients with AD, Myles et al. identified that the predominant gram-negative species identified on healthy volunteers as Roseomonas mucosa. Overgrowth and infection with S. aureus are both contributors to **the** immune imbalance and poor barrier function in AD. Treatment with antibiotics can reduce S. aureus burdens and improve symptoms but does not normalize the underlying pathology. Myles and Datta found that supernatants from healthy volunteer, gram negative culturable bacteria inhibited S. aureus by nearly 50% versus the media control and that select strains of the gram-negative bacteria R. mucosa from healthy controls transplanted onto the skin influenced S. aureus growth, transepidermal water loss associated with AD and influenced certain parameters of innate immune activation. The authors concluded that a live biotherapeutic approach may hold promise for treatment of patients with atopic dermatitis and have initiated clinical studies testing the safety and efficacy of topically administered R. mucosa for the treatment of AD.

Forte Biosciences

[***]

Process Development and Manufacturing Detailed Overview

Process development, formulation, manufacturing and fill/finish of the drug product will conducted in accordance with the USP and FDA guidance.

In brief, process development of the drug product will include selection and testing to determine optimal vialing format, formulation development of the spray nozzle applicator and development of validation of the product quality and performance parameters

Testing will be conducted to assess bacterial suspension in solution in comparison to lyophilization, required reconstitution parameters, stability and bacterial proliferation parameters, cell viability/stability, spray dispersion and consistency of bacterial delivery, aerosolizing parameter definition and testing and contaminant microorganism characterization.

Background on manufacturing and formulation guidance for topical drug products

FDA has issued guidance for the current good manufacturing practice (CGMP) of topical drug product production.

The key focus for the CGMP of topical drug products focuses on the active ingredient uniformity, physical characteristics and chemical and microbial purity. FDA examination of manufacturing and control data and correspondence is to be complete early in the process and the specific and complete control data contained in the application is to be compared to the clinical batches and the production validation batches. In the case of the live bacterial topical biotherapeutic assurance of uniform potency and dispersion is required. **In** this case both the bacterial viability/stability in the final drug product containment will need to be assessed. If the final drug product is in solution, the parameters of the reproducibility of the bacterial delivery (spray coating) are to be defined. Production temperature and sterility is a ***key*** to confirm that no objectionable microorganism

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are present. SOPs for cleaning validation will be established to preclude contamination of current and future batches. FDA emphasizes that it is therefore vital that manufacturers assess the health hazard of all organisms isolated from the drug product. Undesirable microbaterial growth factors which influence microbial growth include flow rates, temperature, surface area of resin beds and the microbial quality of the feed water.

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Microbiological Specifications and Test Methods for Topical Drug Products

During inspections it is important to audit the microbiological specifications and microbial test methods used for each topical product to assure that they are consistent with any described in the relevant application. FDA has commented that it is often helpful for the inspection to include an FDA microbiologist.

Generally, product specifications should cover the total number of organisms permitted, as well as specific organisms that must not be present. These specifications must be based on use of specified sampling and analytical procedures. Where appropriate, the specifications should describe action levels where additional sampling and/or speciation of organisms is necessary.

Manufacturers must demonstrate that the test methods and specifications are appropriate for their intended purpose. Where possible, methods should be utilized that isolate and identify organisms that may present a hazard to the user under the intended use.

In assessing the significance of microbial contamination of a topical product, both the identification of the isolated organisms and the number of organisms found are significant. For example, the presence of a high number of organisms may indicate that the manufacturing process, component quality, and/or container integrity may be deficient. Although high numbers of non-pathogenic organisms may not pose a health hazard, they may affect product efficacy and/or physical/chemical stability. Inconsistent batch to batch microbial levels may indicate some process or control failure in the batch. The batch release evaluation should extend to both organism identification and numbers and, if limits are exceeded, there should be an investigation into the cause.

In addition, “The Topical and Transdermal Drug Products” monograph from the topical/transdermal ad hoc advisory panel for the USP performance tests of topical and transdermal dosage forms defines the parameters for drug device combinations that have local action at or on the surface of the skin.

The USP monograph defines two categories of tests: product quality tests and product performance tests, that are to be performed with topically administered drug products to provide assurances of batch-to-batch quality, reproducibility, reliability, and performance. Product quality tests are performed to assess attributes such as assay, identification, content uniformity, pH, microbial limits, and minimum fill and are part of the compendial monograph. Product performance tests are conducted to assess drug release from the finished dosage form.

[***]

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Using the recently approved Dupixent systemic therapy as a benchmark for clinical development in atopic dermatitis, approval may require 3 clinical trials in approximately 1,300 patients examining therapy vs placebo and therapy on top of topical corticosteroids. Endpoints may include investigator global assessment of 0 or 1 (clear or almost clear) and greater than 2 point improvement from baseline, EASI-75 (75% or greater improvement from baseline of eczema and severity index) , EASI-90 (90% improvement from baseline of eczema and severity index) and a greater than 4 point improvement in the peak pruritis scoring.

	Trial 1		Trial 2		Trial 3	
	DUPIXENT 300 mg Q2W	Placebo	DUPIXENT 300 mg Q2W	Placebo	DUPIXENT 300 mg Q2W + TCS	Placebo + TCS
Number of subjects randomized (FAS)	224	224	233	236	106	315
IGA 0 or 1[b,c]	38%	10%	36%	9%	39%	12%
EASI-75c	51%	15%	44%	12%	69%	23%
EASI-90c	36%	8%	30%	7%	40%	11%
Number of subjects with baseline Peak Pruitus NRS score ≥4	213	212	225	221	102	299
Peak Pruitus NRS (≥4-point improvement)[c]	41%	12%	36%	10%	59%	20%

a Full Analysis Set (FAS) includes all subjects randomized.

b Responder was defined as a subject with IGA 0 or 1 (“clear” or “ almost clear”) with a reduction of ≥2 points on a 0-4 IGA scale.

c Subjects who received rescue treatment or with missing data were considered as non-responders.

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Commercialization

According to the National Eczema Association, 31.6 million people in the US suffer with atopic dermatitis, (17.8 million with moderate to severe atopic dermatitis). The prevalence of childhood eczema/atopic dermatitis in the US is 10.7% overall. Approximately one out of every three children with eczema/atopic dermatitis has moderate to severe disease. A recent study found that the prevalence of eczema in adults could be as high as 10.2%. Three percent of US adults have moderate to severe eczema/atopic dermatitis requiring systemic therapy. These numbers are much higher than for psoriasis, a disease that now has many good-targeted treatments for moderate to severe patients. There are still very large unmet needs for the treatment of patients with eczema / atopic dermatitis that could be address with a topical live biotherapeutic approach.

The current pricing for the recently approved systemic antibody therapy Dupixent is $37,000 per year.

The final pricing and market opportunity for the topical live biotherapeutic will be a function of the detailed efficacy and safety data obtained from the phase 3 trial; however, we believe that a topical live biotherapeutic could offer meaningful benefit to atopic dermatitis patients at a fraction of the cost and with lower risk (topical vs systemic).

[***]

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APPENDIX F - EXAMPLE ROYALTY REPORT

Required royalty report information includes:

- License reference number (L-XXX-200X/0)
- Reporting period
- Catalog number and units sold of each Licensed Product (domestic and foreign)
- Gross Sales per catalog number per country
- Total Gross Sales
- Itemized deductions from Gross Sales
- Total Net Sales
- Earned Royalty Rate and associated calculations
- Gross Earned Royalty
- Adjustments for Minimum Annual Royalty (MAR) and other creditable payments made
- Net Earned Royalty due

Example

Catalog Number	Product Name	Country	Units Sold	Gross Sales (US$)
1	A	US	250	62,500
1	A	UK	32	16,500
1	A	France	25	15,625
2	B	US	0	0
3	C	US	57	57,125
4	D	US	12	1,500
		Total Gross Sales		153,250
		Less Deductions:		
			Freight	3,000
			Returns	7,000
			Total Net Sales	143,250
			Royalty Rate	8%
			Royalty Due	11,460
		Less Creditable Payments		10,000
			Net Royalty Due	1,460

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APPENDIX G — ROYALTY PAYMENT OPTIONS

The License Number MUST appear on payments, reports and correspondence.

Credit and Debit Card Payments

Credit and debit card payments can be submitted for amounts up to $29,999. Submit your payment through the U.S. Treasury web site located at: https://www.nav,govinubliciform/start/28680443.

Automated Clearing House (ACH) for payments through U.S. banks only

The **IC** encourages its licensees to submit electronic funds transfer payments through the Automated Clearing House (ACH). Submit your ACH payment through the U.S. Treasury web site located at: huns://www.pay.mov/public/liirm/start/28680443. Please note that the IC "only" accepts ACH payments through this U.S. Treasury web site.

Electronic Funds Wire Transfers

The following account information is provided for wire payments. In order to process payment via Electronic Funds Wire Transfer sender MUST supply the following information within the transmission:

Drawn on a **U.S. bank account** via FEDWIRE should be sent directly to the following account:

[***]

Drawn on a **foreign bank account** should be sent directly to the following account. Payment must be sent in **U.S. Dollars (USD)** using the following instructions:

[***]

[***] Certain confidential information contained in this document, marked by brackets, has been omitted because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

Checks

All checks should be made payable to "NIH Patent Licensing"

Checks drawn on a **U.S. bank account** and sent by US Postal Service should be sent directly to the following address:

National Institutes of Health
P.O. Box 979071
St. Louis, MO 63197-9000

Checks drawn on a U.S. bank account and sent by **overnight or courier** should be sent to the following address:

US Bank
Government Lockbox SL-MO-C2GL
1005 Convention Plaza
St. Louis, MO 63101
Phone: 314-418-4087

Checks drawn on a **foreign bank account** should be sent directly to the following address:

National Institutes of Health
Office of Technology Transfer
License Compliance and Administration
Royalty Administration
6011 Executive Boulevard
Suite 325, MSC 7660
Rockville, Maryland 20852

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Exhibit 10.19

FORTE BIOSCIENCES INC

2018 EQUITY INCENTIVE PLAN

(as amended November 27,2018)

1. Purposes of the Plan. The purposes of this Plan are:

   - to attract and retain the best available personnel for positions of substantial responsibility,
   - to provide additional incentive to Employees, Directors and Consultants, and
   - to promote the success of the Company's business.

The Plan permits the grant of Incentive Stock Options, Nonstatutory Stock Options, Stock Appreciation Rights, Restricted Stock and Restricted Stock Units.

2. Definitions. As used herein, the following definitions will apply:

(a) "Administrator" means the Board or any of its Committees as will be administering the Plan, in accordance with Section 4 of the Plan.

(b) "Applicable Laws" means the requirements relating to the administration of equity-based awards under U.S. state corporate laws, U.S. federal and state securities laws, the Code, any stock exchange or quotation system on which the Common Stock is listed or quoted and the applicable laws of any foreign country or jurisdiction where Awards are, or will be, granted under the Plan.

(c) "Award" means, individually or collectively, a grant under the Plan of Options, Stock Appreciation Rights, Restricted Stock, or Restricted Stock Units.

(d) "Award Agreement" means the written or electronic agreement setting forth the terms and provisions applicable to each Award granted under the Plan. The Award Agreement is subject to the terms and conditions of the Plan.

(e) "Board" means the Board of Directors of the Company.

(f) "Change in Control" means the occurrence of any of the following events:

(i) Change in Ownership of the Company. A change in the ownership of the Company which occurs on the date that any one person, or more than one person acting as a group ("Person"), acquires ownership of the stock of the Company that, together with the stock held by such Person, constitutes more than 50% of the total voting power of the stock of the Company, except that any change in the ownership of the stock of the Company as a result of a private financing of the Company that is approved by the Board will not be considered a Change in Control; or

(ii) Change in Effective Control of the Company. If the Company has a class of securities registered pursuant to Section 12 of the Exchange Act, a change in the effective control of the Company which occurs on the date that a majority of members of the Board is replaced during any twelve (12) month period by Directors whose appointment or election is not endorsed by a majority of the members of the Board prior to the date of the appointment or election. For purposes of this clause (ii), if any Person is considered to be in effective control of the Company, the acquisition of additional control of the Company by the same Person will not be considered a Change in Control; or

(iii) Change in Ownership of a Substantial Portion of the Company's Assets. A change in the ownership of a substantial portion of the Company's assets which occurs on the date that any Person acquires (or has acquired during the twelve (12) month period ending on the date of the most recent acquisition by such person or persons) assets from the Company that have a total gross fair market value equal to or more than 50% of the total gross fair market value of all of the assets of the Company immediately prior to such acquisition or acquisitions. For purposes of this subsection (iii), gross fair market value means the value of the assets of the Company, or the value of the assets being disposed of, determined without regard to any liabilities associated with such assets.

For purposes of this Section 2(f), persons will be considered to be acting as a group if they are owners of a corporation that enters into a merger, consolidation, purchase or acquisition of stock, or similar business transaction with the Company.

Notwithstanding the foregoing, a transaction will not be deemed a Change in Control unless the transaction qualifies as a change in control event within the meaning of Code Section 409A, as it has been and may be amended from time to time, and any proposed or final Treasury Regulations and Internal Revenue Service guidance that has been promulgated or may be promulgated thereunder from time to time.

Further and for the avoidance of doubt, a transaction will not constitute a Change in Control if: (i) its sole purpose is to change the jurisdiction of the Company's incorporation, or (ii) its sole purpose is to create a holding company that will be owned in substantially the same proportions by the persons who held the Company's securities immediately before such transaction.

(g) "Code" means the Internal Revenue Code of 1986, as amended. Any reference to a section of the Code herein will be a reference to any successor or amended section of the Code.

(h) "Committee" means a committee of Directors or of other individuals satisfying Applicable Laws appointed by the Board, or by the compensation committee of the Board, in accordance with Section 4 hereof.

(i) "Common Stock" means the common stock of the Company.

(j) "Company" means Forte Biosciences Inc, a Delaware corporation, or any successor thereto.

(k) "Consultant" means any natural person, including an advisor, engaged by the Company or a Parent or Subsidiary to render bona fide services to such entity, provided the services (i) are not in connection with the offer or sale of securities in a capital-raising transaction, and (ii) do not directly promote or maintain a market for the Company's securities.

(l) "Director" means a member of the Board.

(m) "Disability" means total and permanent disability as defined in Code Section 22(e)(3), provided that in the case of Awards other than Incentive Stock Options, the Administrator in its discretion may determine whether a permanent and total disability exists in accordance with uniform and non-discriminatory standards adopted by the Administrator from time to time.

(n) "Employee" means any person, including officers and Directors, employed by the Company or any Parent or Subsidiary of the Company. Neither service as a Director nor payment of a director's fee by the Company will be sufficient to constitute "employment" by the Company.

(o) "Exchange Act" means the Securities Exchange Act of 1934, as amended.

(p) "Exchange Program" means a program under which (i) outstanding Awards are surrendered or cancelled in exchange for Awards of the same type (which may have higher or lower exercise prices and different terms), Awards of a different type, and/or cash, (ii) Participants would have the opportunity to transfer any outstanding Awards to a financial institution or other person or entity selected by the Administrator, and/or (iii) the exercise price of an outstanding Award is reduced or increased. The Administrator will determine the terms and conditions of any Exchange Program in its sole discretion.

(q) "Fair Market Value" means, as of any date, the value of Common Stock determined as follows:

(i) If the Common Stock is listed on any established stock exchange or a national market system, including without limitation the Nasdaq Global Select Market, the Nasdaq Global Market or the Nasdaq Capital Market of The Nasdaq Stock Market, its Fair Market Value will be the closing sales price for such stock (or the closing bid, if no sales were reported) as quoted on such exchange or system on the day of determination, as reported in *The Wall Street Journal* or such other source as the Administrator deems reliable;

(ii) If the Common Stock is regularly quoted by a recognized securities dealer but selling prices are not reported, the Fair Market Value of a Share will be the mean between the high bid and low asked prices for the Common Stock on the day of determination (or, if no bids and asks were reported on that date, as applicable, on the last trading date such bids and asks were reported), as reported in *The Wall Street Journal* or such other source as the Administrator deems reliable; or

(iii) In the absence of an established market for the Common Stock, the Fair Market Value will be determined in good faith by the Administrator.

(r) "Incentive Stock Option" means an Option that by its terms qualifies and is otherwise intended to qualify as an incentive stock option within the meaning of Code Section 422 and the regulations promulgated thereunder.

(s) "Nonstatutory Stock Option" means an Option that by its terms does not qualify or is not intended to qualify as an Incentive Stock Option.

(t) "Option" means a stock option granted pursuant to the Plan.

(u) "Parent" means a "parent corporation," whether now or hereafter existing, as defined in Code Section 424(e).

(v) "Participant" means the holder of an outstanding Award.

(w) "Period of Restriction" means the period during which the transfer of Shares of Restricted Stock are subject to restrictions and therefore, the Shares are subject to a substantial risk of forfeiture. Such restrictions may be based on the passage of time, the achievement of target levels of performance, or the occurrence of other events as determined by the Administrator.

(x) "Plan" means this 2018 Equity Incentive Plan.

(y) "Restricted Stock" means Shares issued pursuant to an Award of Restricted Stock under Section 8 of the Plan, or issued pursuant to the early exercise of an Option.

(z) "Restricted Stock Unit" means a bookkeeping entry representing an amount equal to the Fair Market Value of one Share, granted pursuant to Section 9. Each Restricted Stock Unit represents an unfunded and unsecured obligation of the Company.

(aa) "Service Provider" means an Employee, Director or Consultant.

(bb) "Share" means a share of the Common Stock, as adjusted in accordance with Section 13 of the Plan.

(cc) "Stock Appreciation Right" means an Award, granted alone or in connection with an Option, that pursuant to Section 7 is designated as a Stock Appreciation Right.

(dd) "Subsidiary" means a "subsidiary corporation," whether now or hereafter existing, as defined in Code Section 424(f).

3. Stock Subject to the Plan.

(a) Stock Subject to the Plan. Subject to the provisions of Section 13 of the Plan, the maximum aggregate number of Shares that may be subject to Awards and sold under the Plan is 2,785,868 Shares. The Shares may be authorized but unissued, or reacquired Common Stock.

(b) Lapsed Awards. If an Award expires or becomes unexercisable without having been exercised in full, is surrendered pursuant to an Exchange Program, or, with respect to Restricted Stock or Restricted Stock Units, is forfeited to or repurchased by the Company due to the failure to vest, the unpurchased Shares (or for Awards other than Options or Stock Appreciation Rights the forfeited or repurchased Shares) which were subject thereto will become available for future grant or sale under the Plan (unless the Plan has terminated). With respect to Stock Appreciation Rights, only Shares actually issued pursuant to a Stock Appreciation Right will cease to be available under the Plan; all remaining Shares under Stock Appreciation Rights will remain available for future grant or sale under the Plan (unless the Plan has terminated). Shares that have actually been issued under the Plan under any Award will not be returned to the Plan and will not become available for future distribution under the Plan; provided, however, that if Shares issued pursuant to Awards of Restricted Stock or Restricted Stock Units are repurchased by the Company or are forfeited to the Company due to the failure to vest, such Shares will become available for future grant under the Plan. Shares used to pay the exercise price of an Award or to satisfy the tax withholding obligations related to an Award will become available for future grant or sale under the Plan. To the extent an Award under the Plan is paid out in cash rather than Shares, such cash payment will not result in reducing the number of Shares available for issuance under the Plan. Notwithstanding the foregoing and, subject to adjustment as provided in Section 13, the maximum number of Shares that may be issued upon the exercise of Incentive Stock Options will equal the aggregate Share number stated in Section 3(a), plus, to the extent allowable under Code Section 422 and the Treasury Regulations promulgated thereunder, any Shares that become available for issuance under the Plan pursuant to Section 3(b).

(c) Share Reserve. The Company, during the term of this Plan, will at all times reserve and keep available such number of Shares as will be sufficient to satisfy the requirements of the Plan.

4. Administration of the Plan.

(a) Procedure.

(i) Multiple Administrative Bodies. Different Committees with respect to different groups of Service Providers may administer the Plan.

(ii) Other Administration. Other than as provided above, the Plan will be administered by (A) the Board or (B) a Committee, which Committee will be constituted to satisfy Applicable Laws.

(b) Powers of the Administrator. Subject to the provisions of the Plan, and in the case of a Committee, subject to the specific duties delegated by the Board to such Committee, the Administrator will have the authority, in its discretion:

(i) to determine the Fair Market Value;

(ii) to select the Service Providers to whom Awards may be granted hereunder;

(iii) to determine the number of Shares to be covered by each Award granted hereunder;

(iv) to approve forms of Award Agreements for use under the Plan;

(v) to determine the terms and conditions, not inconsistent with the terms of the Plan, of any Award granted hereunder. Such terms and conditions include, but are not limited to, the exercise price, the time or times when Awards may be exercised (which may be based on performance criteria), any vesting acceleration or waiver of forfeiture restrictions, and any restriction or limitation regarding any Award or the Shares relating thereto, based in each case on such factors as the Administrator will determine;

(vi) to institute and determine the terms and conditions of an Exchange Program;

(vii) to construe and interpret the terms of the Plan and Awards granted pursuant to the Plan;

(viii) to prescribe, amend and rescind rules and regulations relating to the Plan, including rules and regulations relating to sub-plans established for the purpose of satisfying applicable foreign laws or for qualifying for favorable tax treatment under applicable foreign laws;

(ix) to modify or amend each Award (subject to Section 18(c) of the Plan), including but not limited to the discretionary authority to extend the post-termination exercisability period of Awards and to extend the maximum term of an Option (subject to Section 6(d));

(x) to allow Participants to satisfy withholding tax obligations in a manner prescribed in Section 14;

(xi) to authorize any person to execute on behalf of the Company any instrument required to effect the grant of an Award previously granted by the Administrator;

(xii) to allow a Participant to defer the receipt of the payment of cash or the delivery of Shares that otherwise would be due to such Participant under an Award; and

(xiii) to make all other determinations deemed necessary or advisable for administering the Plan.

(c) Effect of Administrator's Decision. The Administrator's decisions, determinations and interpretations will be final and binding on all Participants and any other holders of Awards.

5. Eligibility. Nonstatutory Stock Options, Stock Appreciation Rights, Restricted Stock, and Restricted Stock Units may be granted to Service Providers. Incentive Stock Options may be granted only to Employees.

6. Stock Options.

(a) Grant of Options. Subject to the terms and provisions of the Plan, the Administrator, at any time and from time to time, may grant Options in such amounts as the Administrator, in its sole discretion, will determine.

(b) Option Agreement. Each Award of an Option will be evidenced by an Award Agreement that will specify the exercise price, the term of the Option, the number of Shares subject to the Option, the exercise restrictions, if any, applicable to the Option, and such other terms and conditions as the Administrator, in its sole discretion, will determine.

(c) Limitations. Each Option will be designated in the Award Agreement as either an Incentive Stock Option or a Nonstatutory Stock Option. Notwithstanding such designation, however, to the extent that the aggregate Fair Market Value of the Shares with respect to which Incentive Stock Options are exercisable for the first time by the Participant during any calendar year (under all plans of the Company and any Parent or Subsidiary) exceeds one hundred thousand dollars ($100,000), such Options will be treated as Nonstatutory Stock Options. For purposes of this Section 6(c), Incentive Stock Options will be taken into account in the order in which they were granted, the Fair Market Value of the Shares will be determined as of the time the Option with respect to such Shares is granted, and calculation will be performed in accordance with Code Section 422 and Treasury Regulations promulgated thereunder.

(d) Term of Option. The term of each Option will be stated in the Award Agreement; provided, however, that the term will be no more than ten (10) years from the date of grant thereof. In the case of an Incentive Stock Option granted to a Participant who, at the time the Incentive Stock Option is granted, owns stock representing more than ten percent (10%) of the total combined voting power of all classes of stock of the Company or any Parent or Subsidiary, the term of the Incentive Stock Option will be five (5) years from the date of grant or such shorter term as may be provided in the Award Agreement.

(e) Option Exercise Price and Consideration.

(i) Exercise Price. The per Share exercise price for the Shares to be issued pursuant to the exercise of an Option will be determined by the Administrator, but will be no less than one hundred percent (100%) of the Fair Market Value per Share on the date of grant. In addition, in the case of an Incentive Stock Option granted to an Employee who owns stock representing more than ten percent (10%) of the voting power of all classes of stock of the Company or any Parent or Subsidiary, the per Share exercise price will be no less than one hundred ten percent (110%) of the Fair Market Value per Share on the date of grant. Notwithstanding the foregoing provisions of this Section 6(e)(i), Options may be granted with a per Share exercise price of less than one hundred percent (100%) of the Fair Market Value per Share on the date of grant pursuant to a transaction described in, and in a manner consistent with, Code Section 424(a).

(ii) Waiting Period and Exercise Dates. At the time an Option is granted, the Administrator will fix the period within which the Option may be exercised and will determine any conditions that must be satisfied before the Option may be exercised.

(iii) Form of Consideration. The Administrator will determine the acceptable form of consideration for exercising an Option, including the method of payment. In the

case of an Incentive Stock Option, the Administrator will determine the acceptable form of consideration at the time of grant. Such consideration may consist entirely of: (1) cash; (2) check; (3) promissory note, to the extent permitted by Applicable Laws, (4) other Shares, provided that such Shares have a Fair Market Value on the date of surrender equal to the aggregate exercise price of the Shares as to which such Option will be exercised and provided further that accepting such Shares will not result in any adverse accounting consequences to the Company, as the Administrator determines in its sole discretion; (5) consideration received by the Company under cashless exercise program (whether through a broker or otherwise) implemented by the Company in connection with the Plan; (6) by net exercise, (7) such other consideration and method of payment for the issuance of Shares to the extent permitted by Applicable Laws, or (8) any combination of the foregoing methods of payment. In making its determination as to the type of consideration to accept, the Administrator will consider if acceptance of such consideration may be reasonably expected to benefit the Company.

(f) Exercise of Option.

(i) Procedure for Exercise; Rights as a Stockholder. Any Option granted hereunder will be exercisable according to the terms of the Plan and at such times and under such conditions as determined by the Administrator and set forth in the Award Agreement. An Option may not be exercised for a fraction of a Share.

An Option will be deemed exercised when the Company receives: (i) notice of exercise (in such form as the Administrator may specify from time to time) from the person entitled to exercise the Option, and (ii) full payment for the Shares with respect to which the Option is exercised (together with applicable tax withholding). Full payment may consist of any consideration and method of payment authorized by the Administrator and permitted by the Award Agreement and the Plan. Shares issued upon exercise of an Option will be issued in the name of the Participant or, if requested by the Participant, in the name of the Participant and his or her spouse. Until the Shares are issued (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), no right to vote or receive dividends or any other rights as a stockholder will exist with respect to the Shares subject to an Option, notwithstanding the exercise of the Option. The Company will issue (or cause to be issued) such Shares promptly after the Option is exercised. No adjustment will be made for a dividend or other right for which the record date is prior to the date the Shares are issued, except as provided in Section 13 of the Plan.

Exercising an Option in any manner will decrease the number of Shares thereafter available, both for purposes of the Plan and for sale under the Option, by the number of Shares as to which the Option is exercised.

(ii) Termination of Relationship as a Service Provider. If a Participant ceases to be a Service Provider, other than upon the Participant's termination as the result of the Participant's death or Disability, the Participant may exercise his or her Option within thirty (30) days of termination, or such longer period of time as is specified in the Award Agreement (but in no event later than the expiration of the term of such Option as set forth in the Award Agreement) to the extent that the Option is vested on the date of termination. Unless otherwise provided by the Administrator, if on the date of termination the Participant is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option will revert to the Plan. If after

termination the Participant does not exercise his or her Option within the time specified by the Administrator, the Option will terminate, and the Shares covered by such Option will revert to the Plan.

(iii) Disability of Participant. If a Participant ceases to be a Service Provider as a result of the Participant's Disability, the Participant may exercise his or her Option within six (6) months of termination, or such longer period of time as is specified in the Award Agreement (but in no event later than the expiration of the term of such Option as set forth in the Award Agreement) to the extent the Option is vested on the date of termination. Unless otherwise provided by the Administrator, if on the date of termination the Participant is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option will revert to the Plan. If after termination the Participant does not exercise his or her Option within the time specified herein, the Option will terminate, and the Shares covered by such Option will revert to the Plan.

(iv) Death of Participant. If a Participant dies while a Service Provider, the Option may be exercised within six (6) months following the Participant's death, or within such longer period of time as is specified in the Award Agreement (but in no event later than the expiration of the term of such Option as set forth in the Award Agreement) to the extent that the Option is vested on the date of death, by the Participant's designated beneficiary, provided such beneficiary has been designated prior to the Participant's death in a form acceptable to the Administrator. If no such beneficiary has been designated by the Participant, then such Option may be exercised by the personal representative of the Participant's estate or by the person(s) to whom the Option is transferred pursuant to the Participant's will or in accordance with the laws of descent and distribution. Unless otherwise provided by the Administrator, if at the time of death Participant is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option will immediately revert to the Plan. If the Option is not so exercised within the time specified herein, the Option will terminate, and the Shares covered by such Option will revert to the Plan.

7. Stock Appreciation Rights.

(a) Grant of Stock Appreciation Rights. Subject to the terms and conditions of the Plan, a Stock Appreciation Right may be granted to Service Providers at any time and from time to time as will be determined by the Administrator, in its sole discretion.

(b) Number of Shares. The Administrator will have complete discretion to determine the number of Shares subject to any Award of Stock Appreciation Rights.

(c) Exercise Price and Other Terms. The per Share exercise price for the Shares that will determine the amount of the payment to be received upon exercise of a Stock Appreciation Right as set forth in Section 7(f) will be determined by the Administrator and will be no less than one hundred percent (100%) of the Fair Market Value per Share on the date of grant. Otherwise, the Administrator, subject to the provisions of the Plan, will have complete discretion to determine the terms and conditions of Stock Appreciation Rights granted under the Plan.

(d) Stock Appreciation Right Agreement. Each Stock Appreciation Right grant will be evidenced by an Award Agreement that will specify the exercise price, the term of the Stock Appreciation Right, the conditions of exercise, and such other terms and conditions as the Administrator, in its sole discretion, will determine.

(e) Expiration of Stock Appreciation Rights. A Stock Appreciation Right granted under the Plan will expire upon the date determined by the Administrator, in its sole discretion, and set forth in the Award Agreement. Notwithstanding the foregoing, the rules of Section 6(d) relating to the maximum term and Section 6(f) relating to exercise also will apply to Stock Appreciation Rights.

(f) Payment of Stock Appreciation Right Amount. Upon exercise of a Stock Appreciation Right, a Participant will be entitled to receive payment from the Company in an amount determined by multiplying:

(i) The difference between the Fair Market Value of a Share on the date of exercise over the exercise price; times

(ii) The number of Shares with respect to which the Stock Appreciation Right is exercised.

At the discretion of the Administrator, the payment upon Stock Appreciation Right exercise may be in cash, in Shares of equivalent value, or in some combination thereof.

8. Restricted Stock.

(a) Grant of Restricted Stock. Subject to the terms and provisions of the Plan, the Administrator, at any time and from time to time, may grant Shares of Restricted Stock to Service Providers in such amounts as the Administrator, in its sole discretion, will determine.

(b) Restricted Stock Agreement. Each Award of Restricted Stock will be evidenced by an Award Agreement that will specify the Period of Restriction, the number of Shares granted, and such other terms and conditions as the Administrator, in its sole discretion, will determine. Unless the Administrator determines otherwise, the Company as escrow agent will hold Shares of Restricted Stock until the restrictions on such Shares have lapsed.

(c) Transferability. Except as provided in this Section 8 or as the Administrator determines, Shares of Restricted Stock may not be sold, transferred, pledged, assigned, or otherwise alienated or hypothecated until the end of the applicable Period of Restriction.

(d) Other Restrictions. The Administrator, in its sole discretion, may impose such other restrictions on Shares of Restricted Stock as it may deem advisable or appropriate.

(e) Removal of Restrictions. Except as otherwise provided in this Section 8, Shares of Restricted Stock covered by each Restricted Stock grant made under the Plan will be released from escrow as soon as practicable after the last day of the Period of Restriction or at such other time as the Administrator may determine. The Administrator, in its discretion, may accelerate the time at which any restrictions will lapse or be removed.

(f) Voting Rights. During the Period of Restriction, Service Providers holding Shares of Restricted Stock granted hereunder may exercise full voting rights with respect to those Shares, unless the Administrator determines otherwise.

(g) Dividends and Other Distributions. During the Period of Restriction, Service Providers holding Shares of Restricted Stock will be entitled to receive all dividends and other distributions paid with respect to such Shares, unless the Administrator provides otherwise. If any such dividends or distributions are paid in Shares, the Shares will be subject to the same restrictions on transferability and forfeitability as the Shares of Restricted Stock with respect to which they were paid.

(h) Return of Restricted Stock to Company. On the date set forth in the Award Agreement, the Restricted Stock for which restrictions have not lapsed will revert to the Company and again will become available for grant under the Plan.

9. Restricted Stock Units.

(a) Grant. Restricted Stock Units may be granted at any time and from time to time as determined by the Administrator. After the Administrator determines that it will grant Restricted Stock Units, it will advise the Participant in an Award Agreement of the terms, conditions, and restrictions related to the grant, including the number of Restricted Stock Units.

(b) Vesting Criteria and Other Terms. The Administrator will set vesting criteria in its discretion, which, depending on the extent to which the criteria are met, will determine the number of Restricted Stock Units that will be paid out to the Participant. The Administrator may set vesting criteria based upon the achievement of Company-wide, business unit, or individual goals (including, but not limited to, continued employment or service), or any other basis determined by the Administrator in its discretion.

(c) Earning Restricted Stock Units. Upon meeting the applicable vesting criteria, the Participant will be entitled to receive a payout as determined by the Administrator. Notwithstanding the foregoing, at any time after the grant of Restricted Stock Units, the Administrator, in its sole discretion, may reduce or waive any vesting criteria that must be met to receive a payout.

(d) Form and Timing of Payment. Payment of earned Restricted Stock Units will be made as soon as practicable after the date(s) determined by the Administrator and set forth in the Award Agreement. The Administrator, in its sole discretion, may settle earned Restricted Stock Units in cash, Shares, or a combination of both.

(e) Cancellation. On the date set forth in the Award Agreement, all unearned Restricted Stock Units will be forfeited to the Company.

10. Compliance With Code Section 409A. Awards will be designed and operated in such a manner that they are either exempt from the application of, or comply with, the requirements of Code Section 409A, except as otherwise determined in the sole discretion of the Administrator. The Plan and each Award Agreement under the Plan is intended to meet the requirements of Code Section 409A and will be construed and interpreted in accordance with such intent, except as

otherwise determined in the sole discretion of the Administrator. To the extent that an Award or payment, or the settlement or deferral thereof, is subject to Code Section 409A the Award will be granted, paid, settled or deferred in a manner that will meet the requirements of Code Section 409A, such that the grant, payment, settlement or deferral will not be subject to the additional tax or interest applicable under Code Section 409A.

11. Leaves of Absence/Transfer Between Locations. Unless the Administrator provides otherwise, vesting of Awards granted hereunder will be suspended during any unpaid leave of absence. A Participant will not cease to be an Employee in the case of (i) any leave of absence approved by the Company or (ii) transfers between locations of the Company or between the Company, its Parent, or any Subsidiary. For purposes of Incentive Stock Options, no such leave may exceed three (3) months, unless reemployment upon expiration of such leave is guaranteed by statute or contract. If reemployment upon expiration of a leave of absence approved by the Company is not so guaranteed, then six (6) months following the first (1st) day of such leave, any Incentive Stock Option held by the Participant will cease to be treated as an Incentive Stock Option and will be treated for tax purposes as a Nonstatutory Stock Option.

12. Limited Transferability of Awards.

(a) Unless determined otherwise by the Administrator, Awards may not be sold, pledged, assigned, hypothecated, or otherwise transferred in any manner other than by will or by the laws of descent and distribution, and may be exercised, during the lifetime of the Participant, only by the Participant. If the Administrator makes an Award transferable, such Award may only be transferred (i) by will, (ii) by the laws of descent and distribution, or (iii) as permitted by Rule 701 of the Securities Act of 1933, as amended (the "Securities Act").

(b) Further, until the Company becomes subject to the reporting requirements of Section 13 or 15(d) of the Exchange Act, or after the Administrator determines that it is, will, or may no longer be relying upon the exemption from registration under the Exchange Act as set forth in Rule 12h-1(f) promulgated under the Exchange Act, an Option, or prior to exercise, the Shares subject to the Option, may not be pledged, hypothecated or otherwise transferred or disposed of, in any manner, including by entering into any short position, any "put equivalent position" or any "call equivalent position" (as defined in Rule 16a-1(h) and Rule 16a-1(b) of the Exchange Act, respectively), other than to (i) persons who are "family members" (as defined in Rule 701(c)(3) of the Securities Act) through gifts or domestic relations orders, or (ii) to an executor or guardian of the Participant upon the death or disability of the Participant. Notwithstanding the foregoing sentence, the Administrator, in its sole discretion, may determine to permit transfers to the Company or in connection with a Change in Control or other acquisition transactions involving the Company to the extent permitted by Rule 12h-1(f).

13. Adjustments; Dissolution or Liquidation; Merger or Change in Control.

(a) Adjustments. In the event that any dividend or other distribution (whether in the form of cash, Shares, other securities, or other property), recapitalization, stock split, reverse stock split, reorganization, merger, consolidation, split-up, spin-off, combination, repurchase, or exchange of Shares or other securities of the Company, or other change in the corporate structure of the Company affecting the Shares occurs, the Administrator, in order to prevent diminution or

enlargement of the benefits or potential benefits intended to be made available under the Plan, will adjust the number and class of shares of stock that may be delivered under the Plan and/or the number, class, and price of shares of stock covered by each outstanding Award; provided, however, that the Administrator will make such adjustments to an Award required by Section 25102(o) of the California Corporations Code to the extent the Company is relying upon the exemption afforded thereby with respect to the Award.

(b) Dissolution or Liquidation. In the event of the proposed dissolution or liquidation of the Company, the Administrator will notify each Participant as soon as practicable prior to the effective date of such proposed transaction. To the extent it has not been previously exercised, an Award will terminate immediately prior to the consummation of such proposed action.

(c) Merger or Change in Control. In the event of a merger of the Company with or into another corporation or other entity or a Change in Control, each outstanding Award will be treated as the Administrator determines (subject to the provisions of the following paragraph) without a Participant's consent, including, without limitation, that (i) Awards will be assumed, or substantially equivalent Awards will be substituted, by the acquiring or succeeding corporation (or an affiliate thereof) with appropriate adjustments as to the number and kind of shares and prices; (ii) upon written notice to a Participant, that the Participant's Awards will terminate upon or immediately prior to the consummation of such merger or Change in Control; (iii) outstanding Awards will vest and become exercisable, realizable, or payable, or restrictions applicable to an Award will lapse, in whole or in part prior to or upon consummation of such merger or Change in Control, and, to the extent the Administrator determines, terminate upon or immediately prior to the effectiveness of such merger or Change in Control; (iv) (A) the termination of an Award in exchange for an amount of cash and/or property, if any, equal to the amount that would have been attained upon the exercise of such Award or realization of the Participant's rights as of the date of the occurrence of the transaction (and, for the avoidance of doubt, if as of the date of the occurrence of the transaction the Administrator determines in good faith that no amount would have been attained upon the exercise of such Award or realization of the Participant's rights, then such Award may be terminated by the Company without payment), or (B) the replacement of such Award with other rights or property selected by the Administrator in its sole discretion; or (v) any combination of the foregoing. In taking any of the actions permitted under this subsection 13(c), the Administrator will not be obligated to treat all Awards, all Awards held by a Participant, or all Awards of the same type, similarly.

In the event that the successor corporation does not assume or substitute for the Award (or portion thereof), the Participant will fully vest in and have the right to exercise all of his or her outstanding Options and Stock Appreciation Rights, including Shares as to which such Awards would not otherwise be vested or exercisable, all restrictions on Restricted Stock and Restricted Stock Units will lapse, and, with respect to Awards with performance-based vesting, all performance goals or other vesting criteria will be deemed achieved at one hundred percent (100%) of target levels and all other terms and conditions met. In addition, if an Option or Stock Appreciation Right is not assumed or substituted in the event of a merger or Change in Control, the Administrator will notify the Participant in writing or electronically that the Option or Stock Appreciation Right will be exercisable for a period of time determined by the Administrator in its sole discretion, and the Option or Stock Appreciation Right will terminate upon the expiration of such period.

For the purposes of this subsection 13(c), an Award will be considered assumed if, following the merger or Change in Control, the Award confers the right to purchase or receive, for each Share subject to the Award immediately prior to the merger or Change in Control, the consideration (whether stock, cash, or other securities or property) received in the merger or Change in Control by holders of Common Stock for each Share held on the effective date of the transaction (and if holders were offered a choice of consideration, the type of consideration chosen by the holders of a majority of the outstanding Shares); provided, however, that if such consideration received in the merger or Change in Control is not solely common stock of the successor corporation or its Parent, the Administrator may, with the consent of the successor corporation, provide for the consideration to be received upon the exercise of an Option or Stock Appreciation Right or upon the payout of a Restricted Stock Unit, for each Share subject to such Award, to be solely common stock of the successor corporation or its Parent equal in fair market value to the per share consideration received by holders of Common Stock in the merger or Change in Control.

Notwithstanding anything in this Section 13(c) to the contrary, an Award that vests, is earned or paid-out upon the satisfaction of one or more performance goals will not be considered assumed if the Company or its successor modifies any of such performance goals without the Participant's consent; provided, however, a modification to such performance goals only to reflect the successor corporation's post-Change in Control corporate structure will not be deemed to invalidate an otherwise valid Award assumption.

Notwithstanding anything in this Section 13(c) to the contrary, if a payment under an Award Agreement is subject to Code Section 409A and if the change in control definition contained in the Award Agreement does not comply with the definition of "change of control" for purposes of a distribution under Code Section 409A, then any payment of an amount that is otherwise accelerated under this Section will be delayed until the earliest time that such payment would be permissible under Code Section 409A without triggering any penalties applicable under Code Section 409A.

14. Tax Withholding.

(a) Withholding Requirements. Prior to the delivery of any Shares or cash pursuant to an Award (or exercise thereof), the Company will have the power and the right to deduct or withhold, or require a Participant to remit to the Company, an amount sufficient to satisfy federal, state, local, foreign or other taxes (including the Participant's FICA obligation) required to be withheld with respect to such Award (or exercise thereof).

(b) Withholding Arrangements. The Administrator, in its sole discretion and pursuant to such procedures as it may specify from time to time, may permit a Participant to satisfy such tax withholding obligation, in whole or in part by (without limitation) (i) paying cash, (ii) electing to have the Company withhold otherwise deliverable Shares having a Fair Market Value equal to the minimum statutory amount required to be withheld, (iii) delivering to the Company already-owned Shares having a Fair Market Value equal to the statutory amount required to be withheld, provided the delivery of such Shares will not result in any adverse accounting consequences, as the Administrator determines in its sole discretion, or (iv) selling a sufficient number of Shares otherwise deliverable to the Participant through such means as the Administrator may determine in its sole discretion (whether through a broker or otherwise) equal to the amount

required to be withheld. The amount of the withholding requirement will be deemed to include any amount which the Administrator agrees may be withheld at the time the election is made, not to exceed the amount determined by using the maximum federal, state or local marginal income tax rates applicable to the Participant with respect to the Award on the date that the amount of tax to be withheld is to be determined. The Fair Market Value of the Shares to be withheld or delivered will be determined as of the date that the taxes are required to be withheld.

15. No Effect on Employment or Service. Neither the Plan nor any Award will confer upon a Participant any right with respect to continuing the Participant's relationship as a Service Provider with the Company, nor will they interfere in any way with the Participant's right or the Company's right to terminate such relationship at any time, with or without cause, to the extent permitted by Applicable Laws.

16. Date of Grant. The date of grant of an Award will be, for all purposes, the date on which the Administrator makes the determination granting such Award, or such other later date as is determined by the Administrator. Notice of the determination will be provided to each Participant within a reasonable time after the date of such grant.

17. Term of Plan. Subject to Section 21 of the Plan, the Plan will become effective upon its adoption by the Board. Unless sooner terminated under Section 18, it will continue in effect for a term of ten (10) years from the later of (a) the effective date of the Plan, or (b) the earlier of the most recent Board or stockholder approval of an increase in the number of Shares reserved for issuance under the Plan.

18. Amendment and Termination of the Plan.

(a) Amendment and Termination. The Board may at any time amend, alter, suspend or terminate the Plan.

(b) Stockholder Approval. The Company will obtain stockholder approval of any Plan amendment to the extent necessary and desirable to comply with Applicable Laws.

(c) Effect of Amendment or Termination. No amendment, alteration, suspension or termination of the Plan will impair the rights of any Participant, unless mutually agreed otherwise between the Participant and the Administrator, which agreement must be in writing and signed by the Participant and the Company. Termination of the Plan will not affect the Administrator's ability to exercise the powers granted to it hereunder with respect to Awards granted under the Plan prior to the date of such termination.

19. Conditions Upon Issuance of Shares.

(a) Legal Compliance. Shares will not be issued pursuant to the exercise of an Award unless the exercise of such Award and the issuance and delivery of such Shares will comply with Applicable Laws and will be further subject to the approval of counsel for the Company with respect to such compliance.

(b) Investment Representations. As a condition to the exercise of an Award, the Company may require the person exercising such Award to represent and warrant at the time of any

such exercise that the Shares are being purchased only for investment and without any present intention to sell or distribute such Shares if, in the opinion of counsel for the Company, such a representation is required.

20. Inability to Obtain Authority. The inability of the Company to obtain authority from any regulatory body having jurisdiction, which authority is deemed by the Company's counsel to be necessary to the lawful issuance and sale of any Shares hereunder, will relieve the Company of any liability in respect of the failure to issue or sell such Shares as to which such requisite authority will not have been obtained.

21. Stockholder Approval. The Plan will be subject to approval by the stockholders of the Company within twelve (12) months after the date the Plan is adopted by the Board. Such stockholder approval will be obtained in the manner and to the degree required under Applicable Laws.

22. Information to Participants. Beginning on the earlier of (i) the date that the aggregate number of Participants under this Plan is five hundred (500) or more and the Company is relying on the exemption provided by Rule 12h-1(f)(1) under the Exchange Act and (ii) the date that the Company is required to deliver information to Participants pursuant to Rule 701 under the Securities Act, and until such time as the Company becomes subject to the reporting requirements of Section 13 or 15(d) of the Exchange Act, is no longer relying on the exemption provided by Rule 12h-1(f)(1) under the Exchange Act or is no longer required to deliver information to Participants pursuant to Rule 701 under the Securities Act, the Company shall provide to each Participant the information described in paragraphs (e)(3), (4), and (5) of Rule 701 under the Securities Act not less frequently than every six (6) months with the financial statements being not more than 180 days old and with such information provided either by physical or electronic delivery to the Participants or by written notice to the Participants of the availability of the information on an Internet site that may be password-protected and of any password needed to access the information. The Company may request that Participants agree to keep the information to be provided pursuant to this section confidential. If a Participant does not agree to keep the information to be provided pursuant to this section confidential, then the Company will not be required to provide the information unless otherwise required pursuant to Rule 12h-1(f)(1) under the Exchange Act or Rule 701 of the Securities Act.

FORTE BIOSCIENCES, INC.

2018 EQUITY INCENTIVE PLAN

STOCK OPTION AGREEMENT

Unless otherwise defined herein, the terms defined in the 2018 Equity Incentive Plan (the "Plan") shall have the same defined meanings in this Stock Option Agreement (the "Option Agreement").

I. NOTICE OF STOCK OPTION GRANT

Name: «Name»

Address: «Address»
«City_State_Zip»

The undersigned Participant has been granted an Option to purchase Common Stock of the Company, subject to the terms and conditions of the Plan and this Option Agreement, as follows:

Date of Grant:	«Grant_Date»
Vesting Commencement Date:	«Vest_Date»
Exercise Price per Share:	$ «Price_Per_Share»
Total Number of Shares Granted:	«Shares»
Total Exercise Price:	$ «Total_Price»
Type of Option:	«ISO» ___ Incentive Stock Option
	«NSO» ___ Nonstatutory Stock Option
Term/Expiration Date:	«Expire_Date»

Vesting Schedule:

This Option shall be exercisable, in whole or in part, according to the following vesting schedule:

[vesting schedule]

Termination Period:

This Option shall be exercisable for three (3) months after Participant ceases to be a Service Provider, unless such termination is due to Participant's death or Disability, in which case this Option shall be exercisable for twelve (12) months after Participant ceases to be a Service Provider.

Notwithstanding the foregoing sentence, in no event may this Option be exercised after the Term/Expiration Date as provided above and this Option may be subject to earlier termination as provided in Section 13 of the Plan.

II. AGREEMENT

1. Grant of Option. The Administrator of the Company hereby grants to the Participant named in the Notice of Stock Option Grant in Part I of this Option Agreement ("Participant"), an option (the "Option") to purchase the number of Shares set forth in the Notice of Stock Option Grant, at the exercise price per Share set forth in the Notice of Stock Option Grant (the "Exercise Price"), and subject to the terms and conditions of the Plan, which is incorporated herein by reference. Subject to Section 18 of the Plan, in the event of a conflict between the terms and conditions of the Plan and this Option Agreement, the terms and conditions of the Plan shall prevail.

If designated in the Notice of Stock Option Grant as an Incentive Stock Option ("ISO"), this Option is intended to qualify as an Incentive Stock Option as defined in Section 422 of the Code. Nevertheless, to the extent that it exceeds the $100,000 rule of Code Section 422(d), this Option shall be treated as a Nonstatutory Stock Option ("NSO"). Further, if for any reason this Option (or portion thereof) shall not qualify as an ISO, then, to the extent of such nonqualification, such Option (or portion thereof) shall be regarded as a NSO granted under the Plan. In no event shall the Administrator, the Company or any Parent or Subsidiary or any of their respective employees or directors have any liability to Participant (or any other person) due to the failure of the Option to qualify for any reason as an ISO.

2. Exercise of Option.

(a) Right to Exercise. This Option shall be exercisable during its term in accordance with the Vesting Schedule set out in the Notice of Stock Option Grant and with the applicable provisions of the Plan and this Option Agreement.

(b) Method of Exercise. This Option shall be exercisable by delivery of an exercise notice in the form attached as Exhibit A (the "Exercise Notice") or in a manner and pursuant to such procedures as the Administrator may determine, which shall state the election to exercise the Option, the number of Shares with respect to which the Option is being exercised (the "Exercised Shares"), and such other representations and agreements as may be required by the Company. The Exercise Notice shall be accompanied by payment of the aggregate Exercise Price as to all Exercised Shares, together with any applicable tax withholding. This Option shall be deemed to be exercised upon receipt by the Company of such fully executed Exercise Notice accompanied by the aggregate Exercise Price, together with any applicable tax withholding.

No Shares shall be issued pursuant to the exercise of an Option unless such issuance and such exercise comply with Applicable Laws. Assuming such compliance, for income tax purposes the Shares shall be considered transferred to Participant on the date on which the Option is exercised with respect to such Shares.

3. Participant's Representations. In the event the Shares have not been registered under the Securities Act of 1933, as amended (the "Securities Act"), at the time this Option is exercised, Participant shall, if required by the Company, concurrently with the exercise of all or any portion of this Option, deliver to the Company his or her Investment Representation Statement in the form attached hereto as Exhibit B.

4. Lock-Up Period. Participant hereby agrees that Participant shall not offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, any Common Stock (or other securities) of the Company or enter into any swap, hedging or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of any Common Stock (or other securities) of the Company held by Participant (other than those included in the registration) for a period specified by the representative of the underwriters of Common Stock (or other securities) of the Company not to exceed one hundred and eighty (180) days following the effective date of any registration statement of the Company filed under the Securities Act (or such other period as may be requested by the Company or the underwriters to accommodate regulatory restrictions on (i) the publication or other distribution of research reports and (ii) analyst recommendations and opinions, including, but not limited to, the restrictions contained in NYSE Rule 472(f)(4), or any successor provisions or amendments thereto).

Participant agrees to execute and deliver such other agreements as may be reasonably requested by the Company or the underwriter which are consistent with the foregoing or which are necessary to give further effect thereto. In addition, if requested by the Company or the representative of the underwriters of Common Stock (or other securities) of the Company, Participant shall provide, within ten (10) days of such request, such information as may be required by the Company or such representative in connection with the completion of any public offering of the Company's securities pursuant to a registration statement filed under the Securities Act. The obligations described in this Section 4 shall not apply to a registration relating solely to employee benefit plans on Form S-1 or Form S-8 or similar forms that may be promulgated in the future, or a registration relating solely to a Commission Rule 145 transaction on Form S-4 or similar forms that may be promulgated in the future. The Company may impose stop-transfer instructions with respect to the shares of Common Stock (or other securities) subject to the foregoing restriction until the end of said one hundred and eighty (180) day (or other) period. Participant agrees that any transferee of the Option or shares acquired pursuant to the Option shall be bound by this Section 4.

5. Method of Payment. Payment of the aggregate Exercise Price shall be by any of the following, or a combination thereof, at the election of the Participant:

(a) cash;

(b) check;

(c) consideration received by the Company under a formal cashless exercise program adopted by the Company in connection with the Plan; or

(d) surrender of other Shares which (i) shall be valued at its Fair Market Value on the date of exercise, and (ii) must be owned free and clear of any liens, claims, encumbrances or security interests, if accepting such Shares, in the sole discretion of the Administrator, shall not result in any adverse accounting consequences to the Company.

6. Restrictions on Exercise. This Option may not be exercised until such time as the Plan has been approved by the stockholders of the Company, or if the issuance of such Shares upon such exercise or the method of payment of consideration for such shares would constitute a violation of any Applicable Law.

7. Non-Transferability of Option.

(a) This Option may not be transferred in any manner otherwise than by will or by the laws of descent or distribution and may be exercised during the lifetime of Participant only by Participant. The terms of the Plan and this Option Agreement shall be binding upon the executors, administrators, heirs, successors and assigns of Participant.

(b) Further, until the Company becomes subject to the reporting requirements of Section 13 or 15(d) of the Exchange Act, or after the Administrator determines that it is, will, or may no longer be relying upon the exemption from registration of Options under the Exchange Act as set forth in Rule 12h-1(f) promulgated under the Exchange Act (the "Reliance End Date"), Participant shall not transfer this Option or, prior to exercise, the Shares subject to this Option, in any manner other than (i) to persons who are "family members" (as defined in Rule 701(c)(3) of the Securities Act) through gifts or domestic relations orders, or (ii) to an executor or guardian of Participant upon the death or disability of Participant. Until the Reliance End Date, the Options and, prior to exercise, the Shares subject to this Option, may not be pledged, hypothecated or otherwise transferred or disposed of, including by entering into any short position, any "put equivalent position" or any "call equivalent position" (as defined in Rule 16a-1(h) and Rule 16a-1(b) of the Exchange Act, respectively), other than as permitted in clauses (i) and (ii) of this paragraph.

8. Term of Option. This Option may be exercised only within the term set out in the Notice of Stock Option Grant, and may be exercised during such term only in accordance with the Plan and the terms of this Option Agreement.

9. Tax Obligations.

(a) Tax Withholding. Participant agrees to make appropriate arrangements with the Company (or the Parent or Subsidiary employing or retaining Participant) for the satisfaction of all Federal, state, local and foreign income and employment tax withholding requirements applicable to the Option exercise. Participant acknowledges and agrees that the Company may refuse to honor the exercise and refuse to deliver the Shares if such withholding amounts are not delivered at the time of exercise.

(b) Notice of Disqualifying Disposition of ISO Shares. If the Option granted to Participant herein is an ISO, and if Participant sells or otherwise disposes of any of the Shares acquired pursuant to the ISO on or before the later of (i) the date two (2) years after the Date of Grant, or (ii) the date one (1) year after the date of exercise, Participant shall immediately notify the Company in writing of such disposition. Participant agrees that Participant may be subject to income tax withholding by the Company on the compensation income recognized by Participant.

(c) Code Section 409A. Under Code Section 409A, an Option that vests after December 31, 2004 (or that vested on or prior to such date but which was materially modified after October 3, 2004) that was granted with a per Share exercise price that is determined by the Internal

Revenue Service (the "IRS") to be less than the Fair Market Value of a Share on the date of grant (a "discount option") may be considered "deferred compensation." An Option that is a "discount option" may result in (i) income recognition by Participant prior to the exercise of the Option, (ii) an additional twenty percent (20%) federal income tax, and (iii) potential penalty and interest charges. The "discount option" may also result in additional state income, penalty and interest tax to the Participant. Participant acknowledges that the Company cannot and has not guaranteed that the IRS will agree that the per Share exercise price of this Option equals or exceeds the Fair Market Value of a Share on the date of grant in a later examination. Participant agrees that if the IRS determines that the Option was granted with a per Share exercise price that was less than the Fair Market Value of a Share on the date of grant, Participant shall be solely responsible for Participant's costs related to such a determination.

10. Entire Agreement; Governing Law. The Plan is incorporated herein by reference. The Plan and this Option Agreement constitute the entire agreement of the parties with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements of the Company and Participant with respect to the subject matter hereof, and may not be modified adversely to the Participant's interest except by means of a writing signed by the Company and Participant. This Option Agreement is governed by the internal substantive laws but not the choice of law rules of California.

11. No Guarantee of Continued Service. PARTICIPANT ACKNOWLEDGES AND AGREES THAT THE VESTING OF SHARES PURSUANT TO THE VESTING SCHEDULE HEREOF IS EARNED ONLY BY CONTINUING AS A SERVICE PROVIDER AT THE WILL OF THE COMPANY (OR THE PARENT OR SUBSIDIARY EMPLOYING OR RETAINING PARTICIPANT) AND NOT THROUGH THE ACT OF BEING HIRED, BEING GRANTED THIS OPTION OR ACQUIRING SHARES HEREUNDER. PARTICIPANT FURTHER ACKNOWLEDGES AND AGREES THAT THIS AGREEMENT, THE TRANSACTIONS CONTEMPLATED HEREUNDER AND THE VESTING SCHEDULE SET FORTH HEREIN DO NOT CONSTITUTE AN EXPRESS OR IMPLIED PROMISE OF CONTINUED ENGAGEMENT AS A SERVICE PROVIDER FOR THE VESTING PERIOD, FOR ANY PERIOD, OR AT ALL, AND SHALL NOT INTERFERE IN ANY WAY WITH PARTICIPANT'S RIGHT OR THE RIGHT OF THE COMPANY (OR THE PARENT OR SUBSIDIARY EMPLOYING OR RETAINING PARTICIPANT) TO TERMINATE PARTICIPANT'S RELATIONSHIP AS A SERVICE PROVIDER AT ANY TIME, WITH OR WITHOUT CAUSE.

Participant acknowledges receipt of a copy of the Plan and represents that he or she is familiar with the terms and provisions thereof, and hereby accepts this Option subject to all of the terms and provisions thereof. Participant has reviewed the Plan and this Option in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Option and fully understands all provisions of the Option. Participant hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Administrator upon any questions arising under the Plan or this Option. Participant further agrees to notify the Company upon any change in the residence address indicated below.

PARTICIPANT	FORTE BIOSCIENCES, INC.
Signature	By
«Name» Print Name	Print Name
«Address»	Title
«City_State_Zip» Residence Address	

EXHIBIT A

2018 EQUITY INCENTIVE PLAN

EXERCISE NOTICE

Forte Biosciences, Inc.
[address]

Attention: President

1. Exercise of Option. Effective as of today, , , the undersigned ("Participant") hereby elects to exercise Participant's option (the "Option") to purchase shares of the Common Stock (the "Shares") of Forte Biosciences, Inc. (the "Company") under and pursuant to the 2018 Equity Incentive Plan (the "Plan") and the Stock Option Agreement dated , (the "Option Agreement").

2. Delivery of Payment. Participant herewith delivers to the Company the full purchase price of the Shares, as set forth in the Option Agreement, and any and all withholding taxes due in connection with the exercise of the Option.

3. Representations of Participant. Participant acknowledges that Participant has received, read and understood the Plan and the Option Agreement and agrees to abide by and be bound by their terms and conditions.

4. Rights as Stockholder. Until the issuance of the Shares (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), no right to vote or receive dividends or any other rights as a stockholder shall exist with respect to the Common Stock subject to an Award, notwithstanding the exercise of the Option. The Shares shall be issued to Participant as soon as practicable after the Option is exercised in accordance with the Option Agreement. No adjustment shall be made for a dividend or other right for which the record date is prior to the date of issuance except as provided in Section 13 of the Plan.

5. Company's Right of First Refusal. Before any Shares held by Participant or any transferee (either being sometimes referred to herein as the "Holder") may be sold or otherwise transferred (including transfer by gift or operation of law), the Company or its assignee(s) shall have a right of first refusal to purchase the Shares on the terms and conditions set forth in this Section 5 (the "Right of First Refusal").

(a) Notice of Proposed Transfer. The Holder of the Shares shall deliver to the Company a written notice (the "Notice") stating: (i) the Holder's bona fide intention to sell or otherwise transfer such Shares; (ii) the name of each proposed purchaser or other transferee ("Proposed Transferee"); (iii) the number of Shares to be transferred to each Proposed Transferee; and (iv) the bona fide cash price or other consideration for which the Holder proposes to transfer the Shares (the "Offered Price"), and the Holder shall offer the Shares at the Offered Price to the Company or its assignee(s).

(b) Exercise of Right of First Refusal. At any time within thirty (30) days after receipt of the Notice, the Company and/or its assignee(s) may, by giving written notice to the Holder, elect to purchase all, but not less than all, of the Shares proposed to be transferred to any one or more of the Proposed Transferees, at the purchase price determined in accordance with subsection (c) below.

(c) Purchase Price. The purchase price ("Purchase Price") for the Shares purchased by the Company or its assignee(s) under this Section 5 shall be the Offered Price. If the Offered Price includes consideration other than cash, the cash equivalent value of the non-cash consideration shall be determined by the Board of Directors of the Company in good faith.

(d) Payment. Payment of the Purchase Price shall be made, at the option of the Company or its assignee(s), in cash (by check), by cancellation of all or a portion of any outstanding indebtedness of the Holder to the Company (or, in the case of repurchase by an assignee, to the assignee), or by any combination thereof within thirty (30) days after receipt of the Notice or in the manner and at the times set forth in the Notice.

(e) Holder's Right to Transfer. If all of the Shares proposed in the Notice to be transferred to a given Proposed Transferee are not purchased by the Company and/or its assignee(s) as provided in this Section 5, then the Holder may sell or otherwise transfer such Shares to that Proposed Transferee at the Offered Price or at a higher price, *provided* that such sale or other transfer is consummated within one hundred and twenty (120) days after the date of the Notice, that any such sale or other transfer is effected in accordance with any applicable securities laws and that the Proposed Transferee agrees in writing that the provisions of this Section 5 shall continue to apply to the Shares in the hands of such Proposed Transferee. If the Shares described in the Notice are not transferred to the Proposed Transferee within such period, a new Notice shall be given to the Company, and the Company and/or its assignees shall again be offered the Right of First Refusal before any Shares held by the Holder may be sold or otherwise transferred.

(f) Exception for Certain Family Transfers. Anything to the contrary contained in this Section 5 notwithstanding, the transfer of any or all of the Shares during the Participant's lifetime or on the Participant's death by will or intestacy to the Participant's immediate family or a trust for the benefit of the Participant's immediate family shall be exempt from the provisions of this Section 5. "Immediate Family" as used herein shall mean spouse, lineal descendant or antecedent, father, mother, brother or sister. In such case, the transferee or other recipient shall receive and hold the Shares so transferred subject to the provisions of this Section 5, and there shall be no further transfer of such Shares except in accordance with the terms of this Section 5.

(g) Termination of Right of First Refusal. The Right of First Refusal shall terminate as to any Shares upon the earlier of (i) the first sale of Common Stock of the Company to the general public, or (ii) a Change in Control in which the successor corporation has equity securities that are publicly traded.

6. Tax Consultation. Participant understands that Participant may suffer adverse tax consequences as a result of Participant's purchase or disposition of the Shares. Participant represents that Participant has consulted with any tax consultants Participant deems advisable in connection with the purchase or disposition of the Shares and that Participant is not relying on the Company for any tax advice.

7. Restrictive Legends and Stop-Transfer Orders.

(a) Legends. Participant understands and agrees that the Company shall cause the legends set forth below or legends substantially equivalent thereto, to be placed upon any certificate(s) evidencing ownership of the Shares together with any other legends that may be required by the Company or by state or federal securities laws:

> THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 (THE "ACT") AND MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, PLEDGED OR HYPOTHECATED UNLESS AND UNTIL REGISTERED UNDER THE ACT OR, IN THE OPINION OF COUNSEL SATISFACTORY TO THE ISSUER OF THESE SECURITIES, SUCH OFFER, SALE OR TRANSFER, PLEDGE OR HYPOTHECATION IS IN COMPLIANCE THEREWITH.
>
> THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO CERTAIN RESTRICTIONS ON TRANSFER AND A RIGHT OF FIRST REFUSAL HELD BY THE ISSUER OR ITS ASSIGNEE(S) AS SET FORTH IN THE EXERCISE NOTICE BETWEEN THE ISSUER AND THE ORIGINAL HOLDER OF THESE SHARES, A COPY OF WHICH MAY BE OBTAINED AT THE PRINCIPAL OFFICE OF THE ISSUER. SUCH TRANSFER RESTRICTIONS AND RIGHT OF FIRST REFUSAL ARE BINDING ON TRANSFEREES OF THESE SHARES.
>
> THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO RESTRICTIONS ON TRANSFER FOR A PERIOD OF TIME FOLLOWING THE EFFECTIVE DATE OF THE UNDERWRITTEN PUBLIC OFFERING OF THE COMPANY'S SECURITIES SET FORTH IN AN AGREEMENT BETWEEN THE ISSUER AND THE ORIGINAL HOLDER OF THESE SHARES AND MAY NOT BE SOLD OR OTHERWISE DISPOSED OF BY THE HOLDER PRIOR TO THE EXPIRATION OF SUCH PERIOD WITHOUT THE CONSENT OF THE COMPANY OR THE MANAGING UNDERWRITER.

(b) Stop-Transfer Notices. Participant agrees that, in order to ensure compliance with the restrictions referred to herein, the Company may issue appropriate "stop transfer" instructions to its transfer agent, if any, and that, if the Company transfers its own securities, it may make appropriate notations to the same effect in its own records.

(c) Refusal to Transfer. The Company shall not be required (i) to transfer on its books any Shares that have been sold or otherwise transferred in violation of any of the provisions of this Exercise Notice or (ii) to treat as owner of such Shares or to accord the right to vote or pay dividends to any purchaser or other transferee to whom such Shares shall have been so transferred.

8. Successors and Assigns. The Company may assign any of its rights under this Exercise Notice to single or multiple assignees, and this Exercise Notice shall inure to the benefit of

the successors and assigns of the Company. Subject to the restrictions on transfer herein set forth, this Exercise Notice shall be binding upon Participant and his or her heirs, executors, administrators, successors and assigns.

9. Interpretation. Any dispute regarding the interpretation of this Exercise Notice shall be submitted by Participant or by the Company forthwith to the Administrator, which shall review such dispute at its next regular meeting. The resolution of such a dispute by the Administrator shall be final and binding on all parties.

10. Governing Law; Severability. This Exercise Notice is governed by the internal substantive laws, but not the choice of law rules, of California. In the event that any provision hereof becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable or void, this Exercise Notice shall continue in full force and effect.

11. Entire Agreement. The Plan and Option Agreement are incorporated herein by reference. This Exercise Notice, the Plan, the Option Agreement and the Investment Representation Statement constitute the entire agreement of the parties with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements of the Company and Participant with respect to the subject matter hereof, and may not be modified adversely to the Participant's interest except by means of a writing signed by the Company and Participant.

Submitted by:	Accepted by:
PARTICIPANT	FORTE BIOSCIENCES, INC.
_____	_____
Signature	By
«Name»	_____
Print Name	Print Name
	_____
	Title
Address:	
	Address:
«Address»	
«City_State_Zip»	_____
	Date Received

EXHIBIT B

INVESTMENT REPRESENTATION STATEMENT

PARTICIPANT : «Name»

COMPANY : FORTE BIOSCIENCES, INC.

SECURITY : COMMON STOCK

AMOUNT : «Shares»

DATE :

In connection with the purchase of the above-listed Securities, the undersigned Participant represents to the Company the following:

(a) Participant is aware of the Company's business affairs and financial condition and has acquired sufficient information about the Company to reach an informed and knowledgeable decision to acquire the Securities. Participant is acquiring these Securities for investment for Participant's own account only and not with a view to, or for resale in connection with, any "distribution" thereof within the meaning of the Securities Act of 1933, as amended (the "Securities Act").

(b) Participant acknowledges and understands that the Securities constitute "restricted securities" under the Securities Act and have not been registered under the Securities Act in reliance upon a specific exemption therefrom, which exemption depends upon, among other things, the bona fide nature of Participant's investment intent as expressed herein. In this connection, Participant understands that, in the view of the Securities and Exchange Commission, the statutory basis for such exemption may be unavailable if Participant's representation was predicated solely upon a present intention to hold these Securities for the minimum capital gains period specified under tax statutes, for a deferred sale, for or until an increase or decrease in the market price of the Securities, or for a period of one (1) year or any other fixed period in the future. Participant further understands that the Securities must be held indefinitely unless they are subsequently registered under the Securities Act or an exemption from such registration is available. Participant further acknowledges and understands that the Company is under no obligation to register the Securities. Participant understands that the certificate evidencing the Securities shall be imprinted with any legend required under applicable state securities laws.

(c) Participant is familiar with the provisions of Rule 701 and Rule 144, each promulgated under the Securities Act, which, in substance, permit limited public resale of "restricted securities" acquired, directly or indirectly from the issuer thereof, in a non-public offering subject to the satisfaction of certain conditions. Rule 701 provides that if the issuer qualifies under Rule 701 at the time of the grant of the Option to Participant, the exercise shall be exempt from registration under the Securities Act. In the event the Company becomes subject to the reporting requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, ninety (90) days thereafter (or such

longer period as any market stand-off agreement may require) the Securities exempt under Rule 701 may be resold, subject to the satisfaction of the applicable conditions specified by Rule 144, including in the case of affiliates (1) the availability of certain public information about the Company, (2) the amount of Securities being sold during any three (3) month period not exceeding specified limitations, (3) the resale being made in an unsolicited "broker's transaction", transactions directly with a "market maker" or "riskless principal transactions" (as those terms are defined under the Securities Exchange Act of 1934) and (4) the timely filing of a Form 144, if applicable.

In the event that the Company does not qualify under Rule 701 at the time of grant of the Option, then the Securities may be resold in certain limited circumstances subject to the provisions of Rule 144, which may require (i) the availability of current public information about the Company; (ii) the resale to occur more than a specified period after the purchase and full payment (within the meaning of Rule 144) for the Securities; and (iii) in the case of the sale of Securities by an affiliate, the satisfaction of the conditions set forth in sections (2), (3) and (4) of the paragraph immediately above.

(d) Participant further understands that in the event all of the applicable requirements of Rule 701 or 144 are not satisfied, registration under the Securities Act, compliance with Regulation A, or some other registration exemption shall be required; and that, notwithstanding the fact that Rules 144 and 701 are not exclusive, the Staff of the Securities and Exchange Commission has expressed its opinion that persons proposing to sell private placement securities other than in a registered offering and otherwise than pursuant to Rules 144 or 701 shall have a substantial burden of proof in establishing that an exemption from registration is available for such offers or sales, and that such persons and their respective brokers who participate in such transactions do so at their own risk. Participant understands that no assurances can be given that any such other registration exemption shall be available in such event.

PARTICIPANT

_____

Signature

«Name»

Print Name

_____

Date

Exhibit 10.20

Forte Biosciences Inc.

December 14, 2018

Paul A. Wagner, Ph.D.

Dear Dr. Wagner:

I am pleased to provide this offer for you to continue to serve Forte Biosciences, Inc. (the "***Company***") as its President and Chief Executive Officer, reporting to the Board of Directors of the Company (the "***Board***"). If you decide to accept this offer, the terms of this offer will be effective as of the date set forth above (the "***Effective Date***"). You will receive an annual base salary of $350,000 (the ***"Base Salary***"), which will be paid periodically in accordance with the Company's normal payroll practices and be subject to the usual, required withholdings. Your Base Salary will be subject to review and adjustments will be made based upon the Company's normal performance review practices.

Commencing on January 1, 2019, you will be eligible to receive an annual bonus of up to 50% of your Base Salary then in effect upon achievement of performance objectives to be determined by the Board in its sole discretion (the "***Target Bonus***"). The Target Bonus, or any portion thereof, will be paid, less applicable withholdings, as soon as practicable after the Board determines that the Target Bonus has been earned, but in no event shall the Target Bonus be paid after the later of (i) the fifteenth (15th) day of the third (3rd) month following the close of the Company's fiscal year (which currently is December 31st) in which the Target Bonus is earned or (ii) March 15 following the calendar year in which the Target Bonus is earned. Any bonuses will be subject to your continued employment with the Company through the date the bonus is earned.

In the event that your employment is terminated (i) by the Company for reasons other than "Cause" (as defined below), death, or disability or (ii) by you for "Good Reason" (as defined below) (either a "***Qualifying Termination***"), and in any case subject to you signing and not revoking a standard form of release of claims with the Company within 60 days following your employment termination date (the "***Release***"), you will receive (A) cash payments in the form of continuation of your base salary at the rate in effect at the time of termination, less applicable withholdings, payable in accordance with the Company's standard payroll practices for a period of twelve (12) months following your employment termination date, with the first payment to be made no later than ten (10) days following the effective date of the Release (subject to any delay as may be required under the Section 409A paragraph below), (B) reimbursement for the cost of continuation of health coverage for you and your eligible dependents pursuant to the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended ("***COBRA***") until the earlier of (x) twelve (12) months following your termination of employment or (y) the date you and your eligible dependents are no longer eligible for COBRA; provided, however, if, at the time of your termination of employment, the Company determines that providing the COBRA reimbursement in this paragraph would result in a violation of law or an excise tax to the Company, then the Company instead will pay a lump sum payment equal to twelve (12) months of your estimated monthly COBRA premiums, grossed-up for any applicable taxes, within ten (10) days following the effective date of the Release (subject to any delay as may be required under the Section 409A paragraph below), and (C) if such Qualifying Termination occurs on or within 12 months following a "Change of Control" (as defined in the Company's 2018 Equity Incentive Plan), vesting acceleration of your Option (as defined below) in an amount equal to 100% of the then-unvested portion of your Option (or any unvested shares previously acquired under that Option).

It is the intent of this offer letter that all payment and benefits hereunder comply with or be exempt from the requirements of Section 409A of the Internal Revenue Code of 1986, as amended, and the final regulations and any guidance promulgated thereunder and any applicable state law requirements ("***Section 409A***") so that none of the payments and benefits to be provided under this offer letter will be subject to the additional tax imposed under Section 409A, and any ambiguities or ambiguous terms herein will be interpreted to be exempt or so comply. Each payment and benefit payable under this offer letter is intended to constitute a separate payment for purposes of Section 1.409A-2(b)(2) of the Treasury Regulations. You and the Company agree to work together in good faith to consider amendments to this offer letter and to take such reasonable actions which are necessary, appropriate or desirable to avoid imposition of any additional tax or income recognition prior to actual payment to you under Section 409A. No termination pay or benefits to be paid or provided to you, if any, pursuant to this offer letter that, when considered together with any other severance payments or separation benefits, are considered deferred compensation under Section 409A (together, "***Deferred Compensation***") or otherwise would be exempt from Section 409A pursuant to Treasury Regulation Section 1.409A-1(b)(9) will be paid or otherwise provided until you have a "separation from service" within the meaning of Section 409A. Any termination payments or benefits under this offer letter that would be considered Deferred Compensation will be paid on, or, in the case of installments, will not commence until, the sixty-first (61st) day following your separation from service, or, if later, the Delayed Payment Date (as defined below). Further, if at the time of your termination of employment, you are a "specified employee" within the meaning of Section 409A, payment of such Deferred Compensation will be delayed to the extent necessary to avoid the imposition of the additional tax imposed under Section 409A, which generally means that you will receive payment on the first payroll date that occurs on or after the date that is six (6) months and one (1) day following your termination of employment, or your death, if earlier (the "***Delayed Payment Date***").

For purposes of this offer letter "***Cause***" means: (i) a material breach of any of your obligations to the Company or any of its affiliates under the terms of this offer letter or your At Will Employment, Confidential Information, Invention Assignment and Arbitration Agreement; (ii) your gross negligence or willful failure or refusal to perform your duties; (iii) any material act of personal dishonesty taken by you and intended to result in substantial personal enrichment of you at the expense of the Company or its affiliates; (iv) any willful or intentional act that could reasonably be expected to injure the reputation, business, or business relationships of the Company or its affiliates; (v) perpetration of an intentional and knowing fraud against or affecting the company or any customer, supplier, client, agent, or employee thereof; (vi) your conviction of a felony or any crime involving fraud, dishonesty or moral turpitude; or (vii) your termination in connection with a dissolution, wind-down or liquidation of the Company, including as part of a voluntary or involuntary bankruptcy or insolvency proceedings; with respect to any of the foregoing (other than clauses (vi) or (vii)), the Board shall be required to give you written notice of any termination for "Cause" with a detailed description of any alleged breach together with a 30 day ability to cure any such breach, unless such breach is non-curable.

For purposes of this offer letter, "***Good Reason***" means one of the following has occurred without your written consent: (A) a material breach by the Company of any of the covenants in this offer letter; (B) any reduction of your base salary or compensation (including bonus opportunity); (C) any material and adverse change in your position, chain of reporting, title or status or any change in your job duties, authority or responsibilities to those of lesser status; or (D) any material change in the geographic location at which you must principally perform services; it being understood that a change in such geographic location of less than 50 miles will not be deemed material for these purposes. You will not resign for "Good Reason" without first providing the Company with written notice of the acts or omissions constituting the grounds for "Good Reason" within 90 days following the initial occurrence of the event giving rise to "Good Reason" and a reasonable cure period of thirty (30) days following the date the

Company receives such notice during which such condition must not have been cured, and you must resign from your employment with the Company within 30 days following the end of the cure period if uncured.

If you decide to accept this offer, the Company shall recommend that the Board grant to you an option to purchase, pursuant to an option agreement, 2,250,000 shares of Common Stock, par value $0.0001 per share, of the Company (the "***Common Stock***") at a price per share equal to the fair market value per share of the Common Stock on the date of grant, as determined by the Board (the "***Option***"). Subject to the vesting acceleration terms described in this offer letter, the Option shall vest pursuant to certain milestones to be agreed upon with you, subject to your continuing employment with the Company, and none of the Option shall vest before achievement of such milestones. Any shares acquired upon exercise of the Option will be subject to the terms and conditions of the Company's 2018 Equity Incentive Plan and option agreement to be entered into between you and the Company.

If you accept this offer of employment, from and after the Effective Date, you will be entitled to participate in any employee benefit plans hereafter maintained by the Company of general applicability to other senior executives of the Company, including, without limitation, any group medical, dental, vision, disability, life insurance plans maintained by the Company, subject to the terms and conditions of the applicable plans. The Company reserves the right to cancel or change the benefit plans and programs it offers to its employees at any time.

The Company is excited about continuing a beneficial and productive relationship. Nevertheless, you should be aware that your employment with the Company is for no specified period and constitutes at-will employment. As a result, you are free to resign at any time, for any reason or for no reason. Similarly, the Company is free to conclude its employment relationship with you at any time, with or without cause, and with or without notice. We request that, in the event of resignation, you give the Company at least two weeks' notice.

We also ask that, if you have not already done so, you disclose to the Company any and all agreements relating to your prior employment that may affect your eligibility to be employed by the Company or limit the manner in which you may be employed. It is the Company's understanding that any such agreements will not prevent you from performing the duties of your position and you represent that such is the case. Moreover, you agree that, during the term of your employment with the Company, you will not engage in any other employment, occupation, consulting or other business activity directly related to the business in which the Company is now involved or becomes involved during the term of your employment, nor will you engage in any other activities that conflict with your obligations to the Company. Similarly, you agree not to bring any third party confidential information to the Company, including that of your former employer, and that in performing your duties for the Company you will not in any way utilize any such information.

As a condition of your employment, you are also required to continue to comply with the At Will Employment, Confidential Information, Invention Assignment and Arbitration Agreement previously entered into with the Company, which requires, among other provisions, the assignment of patent and other intellectual property rights to any invention made during your employment at the Company, and non-disclosure of Company proprietary information. In the event of any dispute or claim relating to or arising out of our employment relationship, you and the Company agree that any and all disputes between you and the Company shall be fully and finally resolved by binding arbitration, and you are waiving any and all rights to a jury trial.

To accept the Company's offer, please sign and date this letter in the space provided below. This offer letter, along with any agreements relating to proprietary rights between you and the Company, set forth the terms of your employment with the Company and supersede any prior representations or agreements including, but not limited to, any representations made during your recruitment, interviews or pre-employment negotiations, whether written or oral. This offer letter, including, but not limited to, its at-will employment provision, may not be modified or amended except by a written agreement signed by a member of the Board (other than you) and you.

We look forward to your favorable reply and continuing to work with you at the Company.

Sincerely,

Tuan Huynh, Director

Agreed to and accepted:

Signature:	/s/ Paul A. Wagner, Ph.D.
Printed Name:	Paul A. Wagner, Ph.D.
Date:	December 21, 2018

Exhibit 10.21

Forte Biosciences Inc.

March 16, 2020

Antony Riley

Dear Tony:

I am pleased to provide this offer for you to serve Forte Biosciences, Inc. (the "***Company***") as its Chief Financial Officer, reporting to the Chief Executive Officer. If you decide to accept this offer, the terms of this offer will be effective as of March 23, 2020 (the "***Effective Date***"). You will receive an annual base salary of $340,000 (the ***"Base Salary***"), which will be paid periodically in accordance with the Company's normal payroll practices and be subject to the usual, required withholdings. Your Base Salary will be subject to review and adjustments will be made based upon the Company's normal performance review practices.

Commencing on the Effective Date, you will be eligible to receive a target annual bonus equal to 35% of your Base Salary then in effect upon achievement of performance objectives to be determined by the Board of Directors of the Company (the "***Board***") in its sole discretion (the "***Target Bonus***"). The Target Bonus, or any portion thereof, will be paid, less applicable withholdings, as soon as practicable after the Board determines that the Target Bonus has been earned, but in no event shall the Target Bonus be paid after the later of (i) the fifteenth (15th) day of the third (3rd) month following the close of the Company's fiscal year (which currently is December 31st) in which the Target Bonus is earned or (ii) March 15 following the calendar year in which the Target Bonus is earned. Any bonuses will be subject to your continued employment with the Company through the date the bonus is earned.

Commencing on the date immediately following the closing of the Merger (as such term is defined in that certain Agreement and Plan of Merger and Reorganization by and among Tocagen, Inc., its merger subsidiary and the Company, dated on or about the date hereof), in the event that your employment is terminated (i) by the Company for reasons other than "Cause" (as defined below), death, or disability or (ii) by you for "Good Reason" (as defined below) (either a "***Qualifying Termination***"), and in any case subject to you signing and not revoking a standard form of release of claims with the Company within 60 days following your employment termination date (the "***Release***"), you will receive (A) cash payments in the form of continuation of your base salary at the rate in effect at the time of termination, less applicable withholdings, payable in accordance with the Company's standard payroll practices for a period of nine (9) months following your employment termination date, with the first payment to be made no later than ten (10) days following the effective date of the Release (subject to any delay as may be required under the Section 409A paragraph below), (B) reimbursement for the cost of continuation of health coverage for you and your eligible dependents pursuant to the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended ("***COBRA***") until the earlier of (x) nine (9) months following your termination of employment or (y) the date you and your eligible dependents are no longer eligible for COBRA; provided, however, if, at the time of your termination of employment, the Company determines that providing the COBRA reimbursement in this paragraph would result in a violation of law or an excise tax to the Company, then the Company instead will pay a lump sum payment equal to nine (9) months of your estimated monthly COBRA premiums, grossed-up for any applicable taxes, within ten (10) days following the effective date of the Release (subject to any delay as may be required under the Section 409A paragraph below), and (C) if such Qualifying Termination occurs on or within 12 months following a "Change of Control" (as defined in the Company's 2018 Equity Incentive

Plan), vesting acceleration of your Option (as defined below) in an amount equal to 100% of the then-unvested portion of your Option (or any unvested shares previously acquired under that Option). For clarity, prior to the closing of the Merger, none of the benefits set forth in the paragraph shall apply.

It is the intent of this offer letter that all payment and benefits hereunder comply with or be exempt from the requirements of Section 409A of the Internal Revenue Code of 1986, as amended, and the final regulations and any guidance promulgated thereunder and any applicable state law requirements ("***Section 409A***") so that none of the payments and benefits to be provided under this offer letter will be subject to the additional tax imposed under Section 409A, and any ambiguities or ambiguous terms herein will be interpreted to be exempt or so comply. Each payment and benefit payable under this offer letter is intended to constitute a separate payment for purposes of Section 1.409A-2(b)(2) of the Treasury Regulations. You and the Company agree to work together in good faith to consider amendments to this offer letter and to take such reasonable actions which are necessary, appropriate or desirable to avoid imposition of any additional tax or income recognition prior to actual payment to you under Section 409A. No termination pay or benefits to be paid or provided to you, if any, pursuant to this offer letter that, when considered together with any other severance payments or separation benefits, are considered deferred compensation under Section 409A (together, "***Deferred Compensation***") or otherwise would be exempt from Section 409A pursuant to Treasury Regulation Section 1.409A-1(b)(9) will be paid or otherwise provided until you have a "separation from service" within the meaning of Section 409A. Any termination payments or benefits under this offer letter that would be considered Deferred Compensation will be paid on, or, in the case of installments, will not commence until, the sixty-first (61st) day following your separation from service, or, if later, the Delayed Payment Date (as defined below). Further, if at the time of your termination of employment, you are a "specified employee" within the meaning of Section 409A, payment of such Deferred Compensation will be delayed to the extent necessary to avoid the imposition of the additional tax imposed under Section 409A, which generally means that you will receive payment on the first payroll date that occurs on or after the date that is six (6) months and one (1) day following your termination of employment, or your death, if earlier (the "***Delayed Payment Date***").

For purposes of this offer letter "***Cause***" means: (i) a material breach of any of your obligations to the Company or any of its affiliates under the terms of this offer letter or your At Will Employment, Confidential Information, Invention Assignment and Arbitration Agreement; (ii) your gross negligence or willful failure or refusal to perform your duties; (iii) any material act of personal dishonesty taken by you and intended to result in substantial personal enrichment of you at the expense of the Company or its affiliates; (iv) any willful or intentional act that could reasonably be expected to injure the reputation, business, or business relationships of the Company or its affiliates; (v) perpetration of an intentional and knowing fraud against or affecting the company or any customer, supplier, client, agent, or employee thereof; (vi) your conviction of a felony or any crime involving fraud, dishonesty or moral turpitude; or (vii) your termination in connection with a dissolution, wind-down or liquidation of the Company, including as part of a voluntary or involuntary bankruptcy or insolvency proceedings; with respect to any of the foregoing (other than clauses (vi) or (vii)), the Board shall be required to give you written notice of any termination for "Cause" with a detailed description of any alleged breach together with a 30 day ability to cure any such breach, unless such breach is non-curable.

For purposes of this offer letter, "***Good Reason***" means one of the following has occurred without your written consent: (A) a material breach by the Company of any of the covenants in this offer letter; (B) any reduction of your base salary or compensation (including bonus opportunity); or (C) any material change in the geographic location at which you must principally perform services; it being understood that a change in such geographic location of less than 50 miles will not be deemed material for these

purposes. You will not resign for "Good Reason" without first providing the Company with written notice of the acts or omissions constituting the grounds for "Good Reason" within 90 days following the initial occurrence of the event giving rise to "Good Reason" and a reasonable cure period of thirty (30) days following the date the Company receives such notice during which such condition must not have been cured, and you must resign from your employment with the Company within 30 days following the end of the cure period if uncured.

If you decide to accept this offer, the Company shall recommend that the Board grant to you an option to purchase, pursuant to an option agreement, 175,000 shares of Common Stock, par value $0.0001 per share, of the Company (the "***Common Stock***") at a price per share equal to the fair market value per share of the Common Stock on the date of grant, as determined by the Board (the "***Option***"). It is anticipated that 50,000 shares of the Option will be granted prior to the closing of the Merger and 125,000 shares of the Option will be granted following the closing of the Merger, and in the event the date of grant occurs following the closing of the Merger, the number of shares of Common Stock subject to the Option shall be adjusted to take into account the exchange ratio in the Merger. Subject to the vesting acceleration terms described in this offer letter, 25% of the shares subject to the option shall vest 12 months after the date your vesting begins subject to your continuing employment with the Company, and no shares shall vest before such date. The remaining shares shall vest monthly over the next 36 months in equal monthly amounts subject to your continuing employment with the Company. Any shares acquired upon exercise of the Option will be subject to the terms and conditions of the Company's Equity Incentive Plan and option agreement to be entered into between you and the Company.

If you accept this offer of employment, from and after the Effective Date, you will be entitled to participate in any employee benefit plans hereafter maintained by the Company of general applicability to other senior executives of the Company, including, without limitation, any group medical, dental, vision, disability, life insurance plans maintained by the Company, subject to the terms and conditions of the applicable plans. The Company reserves the right to cancel or change the benefit plans and programs it offers to its employees at any time.

The Company is excited about continuing a beneficial and productive relationship. Nevertheless, you should be aware that your employment with the Company is for no specified period and constitutes at-will employment. As a result, you are free to resign at any time, for any reason or for no reason. Similarly, the Company is free to conclude its employment relationship with you at any time, with or without cause, and with or without notice. We request that, in the event of resignation, you give the Company at least two weeks' notice.

We also ask that, if you have not already done so, you disclose to the Company any and all agreements relating to your prior employment that may affect your eligibility to be employed by the Company or limit the manner in which you may be employed. It is the Company's understanding that any such agreements will not prevent you from performing the duties of your position and you represent that such is the case. Moreover, you agree that, during the term of your employment with the Company, you will not engage in any other employment, occupation, consulting or other business activity directly related to the business in which the Company is now involved or becomes involved during the term of your employment, nor will you engage in any other activities that conflict with your obligations to the Company. Similarly, you agree not to bring any third party confidential information to the Company, including that of your former employer, and that in performing your duties for the Company you will not in any way utilize any such information.

As a condition of your employment, you are also required to sign and comply with an At Will Employment, Confidential Information, Invention Assignment and Arbitration Agreement which requires, among other provisions, the assignment of patent rights to any invention made during your employment at the Company, and non-disclosure of Company proprietary information. In the event of any dispute or claim relating to or arising out of our employment relationship, you and the Company agree that any and all disputes between you and the Company shall be fully and finally resolved by binding arbitration, and you are waiving any and all rights to a jury trial. Please note that we must receive your signed Agreement before your first day of employment.

To accept the Company's offer, please sign and date this letter in the space provided below. This offer letter, along with any agreements relating to proprietary rights between you and the Company, set forth the terms of your employment with the Company and supersede any prior representations or agreements including, but not limited to, any representations made during your recruitment, interviews or pre-employment negotiations, whether written or oral. This offer letter, including, but not limited to, its at-will employment provision, may not be modified or amended except by a written agreement signed by the Chief Executive Officer and you.

We look forward to your favorable reply and working with you at the Company.

Sincerely,

/s/ Paul A. Wagner, Ph.D.
Paul A. Wagner, Ph.D., Chief Executive Officer

Agreed to and accepted:

Signature:	/s/ Antony Riley
Printed Name:	Antony Riley
Date:	March 16, 2020

Exhibit 23.1

Consent Independent Registered Public Accounting Firm

We consent to the reference to our firm under the caption “Experts” and to the use of our report dated February 27, 2020, in Amendment No. 1 to the Registration Statement (Form S-4 No. 333-237371) and related Prospectus of Tocagen Inc. for the registration of shares of its common stock.

/s/ Ernst & Young LLP
San Diego, California
April 27, 2020

Exhibit 23.2

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

As independent registered public accountants, we hereby consent to the inclusion in the proxy statement/prospectus/information statement constituting a part of this Registration Statement on Form S-4/A of our report dated March 24, 2020 relating to the financial statements of Forte Biosciences, Inc. as of and for the years ended December 31, 2019 and 2018, and to the reference to us under the caption "Experts," which is contained in the Registration Statement.

/s/ Mayer Hoffman McCann P.C.

San Diego, California
April 27, 2020

Exhibit 99.2

Consent of Ladenburg Thalmann & Co. Inc.

April 27, 2020

Board of Directors
Tocagen Inc.
4445 Eastgate Mall, Suite 200
San Diego, California 92121

Re: Registration Statement on Form S-4 of Tocagen Inc.

Members of the Board:

We hereby consent to: (i) the inclusion of our opinion letter, dated February 19, 2020, to the Board of Directors of Tocagen Inc. ("Tocagen") as Annex B to the proxy statement/prospectus/information statement that forms part of the Registration Statement on Form S-4 of Tocagen (the "Registration Statement") filed on March 25, 2020; and (ii) the references made to our firm and such opinion in such Registration Statement under the captions "Prospectus Summary—Opinion of the Tocagen Financial Advisor," "The Merger—Background of the Merger," "The Merger—Tocagen Reasons for the Merger," "The Merger—Tocagen's Unaudited Financial Projections Regarding Forte," "The Merger—Opinion of the Tocagen Financial Advisor" and "Description of Tocagen's Business—Overview." Notwithstanding the foregoing, in giving such consent, we do not admit and we hereby disclaim that we come within the category of persons whose consent is required under Section 7 of the Securities Act of 1933, as amended, or the rules and regulations of the Securities and Exchange Commission thereunder, nor do we hereby admit that we are experts with respect to any part of such Registration Statement within the meaning of the term "experts" as used in the Securities Act of 1933, as amended, or the rules and regulations of the Securities and Exchange Commission promulgated thereunder.

Very truly yours,

/s/ Ladenburg Thalmann & Co. Inc.
LADENBURG THALMANN & CO. INC.

LADENBURG THALMANN & CO. INC.
277 Park Avenue, 26th Floor
New York, NY 10172
Phone 212.409.2000 • Fax 212.308.2203

MEMBER NYSE, NYSE Amex, FINRA, SIPC