
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, DC 20549

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d)
of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): April 3, 2020

Inovio Pharmaceuticals, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation)

001-14888
(Commission
File Number)

33-0969592
(IRS Employer
Identification No.)

660 W. Germantown Pike, Suite 110
Plymouth Meeting, PA 19462
(Address of principal executive offices, including zip code)

(267) 440-4200
(Registrant's telephone number, including area code)

N/A
(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, \$0.001 par value	INO	The Nasdaq Stock Market LLC

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

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 13(a) of the Exchange Act.

[Table of Contents](#)

Item 1.01. Entry into a Material Definitive Agreement.

On April 3, 2020, Inovio Pharmaceuticals, Inc. (the “*Company*”) entered into an At-The-Market Equity Offering Sales Agreement (the “*Sales Agreement*”) with Stifel, Nicolaus & Company, Incorporated (“*Stifel*”) under which the Company may offer and sell, from time to time at its sole discretion, shares of its common stock, par value \$0.001 per share (the “*Common Stock*”), through Stifel as its sales agent. The Company has filed a prospectus supplement pursuant to the Sales Agreement for the offer and sale of its Common Stock having an aggregate offering price of up to \$150,000,000.

Pursuant to the Sales Agreement, sales of the Common Stock, if any, will be made under the Company’s previously filed and effective Registration Statement on Form S-3 (File No. 333-237172) and an applicable prospectus supplement, by any method that is deemed to be an “at the market offering” as defined in Rule 415(a)(4) under the Securities Act of 1933, as amended. Subject to the terms and conditions of the Sales Agreement, Stifel may sell the Common Stock by any method permitted by law deemed to be an “at the market offering” as defined in Rule 415(a)(4) of the Securities Act of 1933, as amended. Stifel will use commercially reasonable efforts to sell the Common Stock from time to time, based upon instructions from the Company (including any price, time or size limits or other customary parameters or conditions the Company may impose). The Company will pay Stifel a commission of up to three percent (3.0%) of the gross sales proceeds of any Common Stock sold through Stifel under the Sales Agreement, and also has provided Stifel with certain indemnification rights.

The foregoing description of the Sales Agreement is not complete and is qualified in its entirety by reference to the full text of the Sales Agreement, a copy of which is filed herewith as Exhibit 10.1 to this Current Report on Form 8-K and is incorporated herein by reference.

This Current Report on Form 8-K shall not constitute an offer to sell or the solicitation of an offer to buy the securities discussed herein, nor shall there be any offer, solicitation, or sale of the securities in any state in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state.

Item 8.01. Other Events.

On March 12, 2020, a purported shareholder class action complaint, *McDermid v. Inovio Pharmaceuticals, Inc. and J. Joseph Kim*, was filed in the United States District Court for the Eastern District of Pennsylvania, naming the Company and J. Joseph Kim, the Company’s Chief Executive Officer, as defendants. The lawsuit alleges that the Company made materially false and misleading statements regarding the Company’s development of a vaccine for COVID-19, also known as coronavirus, in its public disclosures in violation of certain federal securities laws. The plaintiff seeks unspecified monetary damages on behalf of the putative class and an award of costs and expenses, including reasonable attorneys’ fees. The Company intends to defend this action vigorously.

Forward-Looking Statements

This report contains certain forward-looking statements relating to the Company’s business that involve a number of risks and uncertainties, including statements related to the outcome of the above-referenced shareholder class action. These statements may be identified by introductory words such as “may,” “expects,” “plan,” “believe,” “will,” “achieve,” “anticipate,” “would,” “should,” “subject to” or words of similar meaning, or by the fact that they do not relate strictly to historical or current facts. For such statements, the Company claims the protection of the Private Securities Litigation Reform Act of 1995. Actual events or results may differ from the expectations set forth herein as a result of a number of factors, including, but not limited to factors discussed in the “Risk Factors” sections of the Company’s most recently filed Annual Report on Form 10-K and Quarterly Report on Form 10-Q, and other filings that the Company makes with the SEC from time to time. There can be no assurance that any of the forward-looking information provided herein will be proven accurate.

In addition, the forward-looking statements included in this report represent the Company’s views as of the date hereof. The Company anticipates that subsequent events and developments may cause its views to change. However, while the Company may elect to update these forward-looking statements at some point in the future, the company specifically disclaims any obligation to do so, except as may be required by law. These forward-looking statements should not be relied upon as representing the Company’s views as of any date subsequent to the date of this report.

[Table of Contents](#)

Item 9.01. Financial Statements and Exhibits.

<u>Exhibit No.</u>	<u>Exhibit Description</u>
1.1	At-The-Market Equity Offering Sales Agreement dated April 3, 2020 between Inovio Pharmaceuticals, Inc. and Stifel, Nicolaus & Company, Incorporated.
5.1	Opinion of Cooley LLP.
23.1	Consent of Cooley LLP (included in Exhibit 5.1).

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Date: April 3, 2020

INOVIO PHARMACEUTICALS, INC.

By: /s/ Peter Kies

Peter Kies

Chief Financial Officer

INOVIO PHARMACEUTICALS, INC.

Common Stock
(\$0.001 par value per share)

AT-THE-MARKET EQUITY OFFERING SALES AGREEMENT

April 3, 2020

STIFEL, NICOLAUS & COMPANY, INCORPORATED
One South Street, 15th Floor
Baltimore, Maryland 21202

Ladies and Gentlemen:

Inovio Pharmaceuticals, Inc., a Delaware corporation (the “Company”), proposes, subject to the terms and conditions stated herein, to issue and sell from time to time to or through Stifel, Nicolaus & Company, Incorporated (“Stifel Nicolaus”), as sales agent and/or principal (“Agent”), shares (the “Shares”) of the Company’s common stock, \$0.001 par value per share (the “Common Stock”), on the terms set forth in Section 2 of this At-The-Market Equity Offering Sales Agreement (this “Agreement”); provided, however, that in no event shall the Company issue or sell through the Agent such number of Shares that exceeds the Maximum Amount (as defined in Section 2(f)). The Company agrees that whenever it determines to sell Shares directly to the Agent as principal, it will enter into a separate agreement (each, a “Terms Agreement”) in substantially the form of Annex I hereto, relating to such sale in accordance with Section 3 of this Agreement.

Section 1. Representations and Warranties. Except as disclosed in the Registration Statement (as defined below), the Prospectus (as defined below) of the General Disclosure Package (as defined below), the Company represents and warrants to the Agent that as of the date of this Agreement, any applicable Registration Statement Amendment Date (as defined in Section 3 below), each Company Periodic Report Date (as defined in Section 3 below), each Applicable Time (as defined in Section 1(a) below) and each Settlement Date (as defined in Section 2 below):

(a) Compliance with Registration Requirements. The Company has filed or will file with the Securities and Exchange Commission (the “Commission”) a registration under the Securities Act of 1933, as amended (the “1933 Act”) on Form S-3, in respect of the Company’s Common Stock (including the Shares) (collectively, the “Securities”); such registration statement, and any post-effective amendment thereto, has become or will become effective; and no stop order suspending the effectiveness of such registration statement or any part thereof has been issued and no proceeding for that purpose has been initiated or, to the knowledge of the Company, threatened by the Commission (the base prospectus filed as part of such registration statement, in the form in which it has most recently been filed with the Commission on or prior to the date of this Agreement, is hereinafter called the “Basic Prospectus”; the various parts of such registration statement, including all exhibits thereto and any prospectus supplement relating to the Shares that is filed with the Commission and deemed by virtue of Rule 430B to be part of such registration statement, each as amended at the time such part of the registration statement became effective, are hereinafter collectively called the “Registration Statement”; the prospectus supplement specifically relating to the Shares prepared and filed with the Commission pursuant to Rule 424(b) under the 1933 Act is hereinafter called the “Prospectus Supplement”; the Basic Prospectus, as amended and supplemented by the Prospectus Supplement, is hereinafter called the “Prospectus”; any reference herein to the Basic Prospectus, the Prospectus Supplement or the Prospectus shall be deemed to refer to and include the documents incorporated by reference therein pursuant to Item 12 of Form S-3 under the 1933 Act; any reference to any amendment or supplement to the Basic Prospectus, the Prospectus Supplement or the Prospectus shall be deemed to refer to and include any post-effective amendment to the Registration Statement, any prospectus supplement relating to the Shares filed with the Commission pursuant to Rule 424(b) under the 1933 Act and any documents filed under the Securities Exchange Act of 1934, as amended (the “1934 Act”), and the rules and regulations of the Commission thereunder (the “1934 Act Regulations”), and incorporated therein, in each case after the date of the Basic Prospectus, the Prospectus Supplement or the Prospectus, as the case may be; any reference to any amendment to the Registration Statement shall be deemed to refer to and include any annual report of the Company filed pursuant to Section 13(a) or 15(d) of the 1934 Act after the effective date of the Registration Statement that is incorporated by reference in the Registration Statement; and any “issuer free writing prospectus” as defined in Rule 433 under the 1933 Act relating to the Shares is hereinafter called an “Issuer Free Writing Prospectus”). The Company may file one or more additional registration statements (each of which shall be a Registration Statement) from time to time that will contain a base prospectus and related prospectus or prospectus supplement, if applicable (which shall be a Prospectus Supplement), with respect to the Shares.

No order preventing or suspending the use of the Basic Prospectus, the Prospectus Supplement, the Prospectus or any Issuer Free Writing Prospectus has been issued by the Commission, and the Basic Prospectus and the Prospectus Supplement, at the time of filing thereof, conformed in all material respects to the requirements of the 1933 Act and the rules and regulations of the Commission thereunder (the “1933 Act Regulations”) and did not contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading.

For the purposes of this Agreement, the “Applicable Time” means, with respect to any Shares, the time of sale of such Shares pursuant to this Agreement; the Prospectus and the applicable Issuer Free Writing Prospectus(es) issued at or prior to such Applicable Time, taken together (collectively, and, with respect to any Shares, together with the public offering price of such Shares, the “General Disclosure Package”) as of each Applicable Time and each Settlement Date, will not include any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; and each applicable Issuer Free Writing Prospectus will not conflict with the information contained in the Registration Statement, the Prospectus Supplement or the Prospectus and each such Issuer Free Writing Prospectus, as supplemented by and taken together with the General

Disclosure Package as of such Applicable Time, will not include any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading.

(b) Incorporation of Documents by Reference. The documents incorporated or deemed to be incorporated by reference in the Registration Statement and the Prospectus, when they became effective or were filed with the Commission, as the case may be, complied in all material respects with the requirements of the 1934 Act and the 1934 Act Regulations, and, when read together with the other information in the Prospectus, (a) at the time the Registration Statement became effective did not contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading, (b) at the time the Prospectus was issued and on the date of this Agreement, the Prospectus did not contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading.

(c) Independent Accountants. The accountants who certified the financial statements and supporting schedules included in the Registration Statement are independent public accountants as required by the 1933 Act and the 1933 Act Regulations.

(d) Financial Statements. The financial statements included or incorporated by reference in the Registration Statement, the General Disclosure Package and the Prospectus, together with the related schedules and notes, present fairly, in all material respects, the financial position of the Company and its consolidated Subsidiaries (as defined below) at the dates indicated and the statement of operations, stockholders' equity and cash flows of the Company and its consolidated Subsidiaries for the periods specified; said financial statements have been prepared in conformity with generally accepted accounting principles in the United States ("GAAP") applied on a consistent basis throughout the periods involved, except that unaudited financial statements may not contain footnotes required by GAAP. The supporting schedules, if any, present fairly, in all material respects, in accordance with GAAP the information required to be stated therein. The selected financial data and the summary financial information included in the Prospectus present fairly, in all material respects, the information shown therein and have been compiled on a basis consistent with that of the audited financial statements included or incorporated by reference in the Registration Statement. All disclosures, if any, contained in the Registration Statement, the General Disclosure Package or the Prospectus, or incorporated by reference therein, regarding "non-GAAP financial measures" (as such term is defined by the rules and regulations of the Commission) comply with Regulation G of the 1934 Act and Item 10 of Regulation S-K of the 1933 Act, to the extent applicable.

(e) No Material Adverse Change in Business. Since the respective dates as of which information is given in the Registration Statement, the General Disclosure Package or the Prospectus, except as otherwise stated therein, (A) there has been no material adverse change, or any development that could reasonably be expected to result in a material adverse change, in the condition, financial or otherwise, or in the earnings, business affairs or business prospects of the Company and its Subsidiaries considered as one enterprise, whether or not arising in the ordinary course of business (a "Material Adverse Effect"), (B) there have been no transactions entered into by the Company or any of its Subsidiaries, other than those in the ordinary course of business, which are material with respect to the Company and its Subsidiaries considered as one enterprise, and (C) there has been no dividend or distribution of any kind declared, paid or made by the Company on any class of its capital stock.

(f) Good Standing of the Company. The Company has been duly organized and is validly existing as a corporation in good standing under the laws of the jurisdiction of its organization and has corporate power and authority to own, lease and operate its properties and to conduct its business as described in the Prospectus and to enter into and perform its obligations under this Agreement; and the Company is duly qualified as a foreign corporation to transact business and is in good standing in each other jurisdiction in which such qualification is required, whether by reason of the ownership or leasing of property or the conduct of business, except where the failure so to qualify or to be in good standing would not result in a Material Adverse Effect.

(g) Good Standing of Subsidiaries. Each subsidiary listed on Schedule I hereto (each a "Subsidiary" and, collectively, the "Subsidiaries") has been duly organized and is validly existing as a corporation in good standing under the laws of the jurisdiction of its incorporation, has corporate power and authority to own, lease and operate its properties and to conduct its business as described in the Prospectus and is duly qualified as a foreign corporation to transact business and is in good standing in each jurisdiction in which such qualification is required, whether by reason of the ownership or leasing of property or the conduct of business, except where the failure so to qualify or to be in good standing would not result in a Material Adverse Effect; except as otherwise disclosed in the Registration Statement or as would not result in a Material Adverse Effect, all of the issued and outstanding capital stock of each such Subsidiary has been duly authorized and validly issued, is fully paid and non-assessable and is owned by the Company, directly or through subsidiaries, free and clear of any security interest, mortgage, pledge, lien, encumbrance, claim or equity; none of the outstanding shares of capital stock of any Subsidiary was issued in violation of the preemptive or similar rights of any securityholder of such Subsidiary except where such failure would not result in a Material Adverse Effect. The only subsidiaries, direct and indirect, of the Company are the subsidiaries listed on Schedule I hereto.

(h) Capitalization. The shares of issued and outstanding Common Stock have been duly authorized and validly issued and are fully paid and non-assessable; none of the outstanding shares of capital stock was issued in violation of the preemptive or other similar rights of any securityholder of the Company. The Company's Common Stock has been registered pursuant to Section 12(b) of the 1934 Act and is listed on the Nasdaq Global Select Market ("Nasdaq"), and the Company has taken no action designed to, or likely to have the effect of, terminating the registration or listing of the Common Stock from the Nasdaq, nor has the Company received any notification that the Commission or the Nasdaq is contemplating terminating such registration or listing.

(i) Authorization of Agreements. This Agreement and any Terms Agreement have been duly authorized by the Company. This Agreement has been, and any Terms Agreement will be, executed and delivered by the Company.

(j) Authorization and Description of Securities. The Shares have been duly authorized and reserved for issuance and sale pursuant to this Agreement and, when issued and delivered by the Company pursuant to this Agreement or any Terms Agreement against payment of the consideration set forth herein or therein, will be validly issued and fully paid and non-assessable; the Common Stock conforms to all statements relating thereto contained in the Prospectus and such description conforms to the rights set forth in the instruments defining the same; no holder of the Shares will be subject to personal liability by reason of being such a holder; and the issuance of the Shares is not subject to the preemptive or other similar rights of any securityholder of the Company.

(k) Absence of Defaults and Conflicts. (a) Neither the Company nor any of its Subsidiaries is (i) in violation of its charter or by-laws or (ii) in default in the performance or observance of any obligation, agreement, covenant or condition contained in any contract, indenture, mortgage, deed of trust, loan or credit agreement, note, lease or other agreement or instrument to which the Company or any of its Subsidiaries is a party or by which it or any of them may be bound, or to which any of the property or assets of the Company or any Subsidiary is subject (collectively, “Agreements and Instruments”), except for such violations and defaults in the case of this clause (a)(ii) as would not have a Material Adverse Effect; (b)(i) and the execution, delivery and performance of this Agreement or of any Terms Agreement and the consummation of the transactions contemplated herein or in any Terms Agreement and in the Registration Statement (including the issuance and sale of the Shares and the use of the proceeds from the sale of the Shares as described in the Prospectus under the caption “Use of Proceeds”) and compliance by the Company with its obligations hereunder have been duly authorized by all necessary corporate action and do not and will not, whether with or without the giving of notice or passage of time or both, conflict with or constitute a breach of, or default or Repayment Event (as defined below) under, or result in the creation or imposition of any lien, charge or encumbrance upon any property or assets of the Company or any Subsidiary pursuant to, the Agreements and Instruments, (ii) nor will such action result in any violation of the provisions of the charter or by-laws of the Company or any Subsidiary, (iii) nor will such action result in any violation of any applicable law, statute, rule, regulation, judgment, order, writ or decree of any government, government instrumentality or court, domestic or foreign, having jurisdiction over the Company or any Subsidiary or any of their assets, properties or operations, except for such conflicts, breaches, violations and defaults in the case of clauses (b) (i) and (iii) as would not have a Material Adverse Effect. As used herein, a “Repayment Event” means any event or condition which gives the holder of any note, debenture or other evidence of indebtedness (or any person acting on such holder’s behalf) the right to require the repurchase, redemption or repayment of all or a portion of such indebtedness by the Company or any Subsidiary.

(l) Absence of Labor Dispute. Except where the failure thereof would not result in a Material Adverse Effect, no labor dispute with the employees of the Company or any Subsidiary exists or, to the knowledge of the Company, is imminent, and the Company is not aware of any existing or imminent labor disturbance by the employees of any of its or any Subsidiary’s principal suppliers, manufacturers, customers or contractors.

(m) Absence of Proceedings. There is no action, suit, proceeding, inquiry or investigation before or brought by any court or governmental agency or body, domestic or foreign, now pending, or, to the knowledge of the Company, threatened, against or affecting the Company or any Subsidiary, which is required to be disclosed in the Registration Statement or the Prospectus (other than as disclosed therein), or which would reasonably be expected to result in a Material Adverse Effect, or which might materially and adversely affect the properties or assets thereof or the consummation of the transactions contemplated in this Agreement or any Terms Agreement or the performance by the Company of its obligations hereunder or thereunder; the aggregate of all pending legal or governmental proceedings to which the Company or any Subsidiary is a party or of which any of their respective property or assets is the subject which are not described in the Registration Statement or the Prospectus, including ordinary routine litigation incidental to the business, would not reasonably be expected to result in a Material Adverse Effect.

(n) Accuracy of Exhibits. There are no contracts or documents which are required to be described in the Registration Statement or the Prospectus or the documents incorporated by reference therein or to be filed as exhibits thereto which have not been so described and filed as required.

(o) Possession of Intellectual Property. Except where the failure thereof would not reasonably be expected to be material to the Company and its Subsidiaries, taken as a whole, the Company and its Subsidiaries own or possess, or can acquire on reasonable terms, adequate patents, patent rights, licenses, inventions, copyrights, know-how (including trade secrets and other unpatented and/or unpatentable proprietary or confidential information, systems or procedures), trademarks, service marks, trade names or other intellectual property (collectively, “Intellectual Property”) necessary to carry on the business now operated by them, and neither the Company nor any of its Subsidiaries has received any notice or is otherwise aware of any infringement of or conflict with asserted rights of others with respect to any Intellectual Property or of any facts or circumstances which would render any Intellectual Property invalid or inadequate to protect the interest of the Company or any of its Subsidiaries therein.

(p) Absence of Further Requirements. Except where the failure thereof would not result in a Material Adverse Effect, no filing with, or authorization, approval, consent, license, order, registration, qualification or decree of, any court or governmental authority or agency is necessary or required for the performance by the Company of its obligations hereunder, in connection with the offering, issuance or sale of the Securities hereunder or the consummation of the transactions contemplated by this Agreement or any Terms Agreement, except such as have been already obtained or as may be required under the 1933 Act or the 1933 Act Regulations or state securities laws.

(q) Absence of Manipulation. Neither the Company nor, to the Company’s knowledge, any affiliate of the Company has taken, nor will the Company take, directly or indirectly, any action which is designed to or which has constituted or which would reasonably be expected to cause or result in stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Shares.

(r) Possession of Licenses and Permits. The Company and each of its Subsidiaries have made all filings, applications, declarations and submissions required by, and own or possess all approvals, licenses, certificates, clearances, consents, exemptions, marks, notifications, orders, authorizations and permits issued by the appropriate local, state, federal or foreign regulatory agencies or bodies, including all such registrations, approvals, certificates, authorizations and permits required by the United States Food and Drug Administration (the “FDA”) which are required for the ownership of their

respective properties or the conduct of their current respective businesses as described in the Registration Statement, General Disclosure Package and the Prospectus (each, a “Governmental License”) except where any failures to possess or any noncompliance would not, singly or in the aggregate, have a Material Adverse Effect and neither the Company nor any of its Subsidiaries has received any notice of any revocation, modification or cancellation of, any such Governmental License, which, individually or in the aggregate, if the subject of an unfavorable decision, ruling or finding, would reasonably be expected to be material to the Company and its Subsidiaries, taken as a whole. Where required by applicable laws and regulations of the FDA, the Company has submitted to the FDA an Investigational New Drug Application or amendment or supplement thereto for each clinical trial it has conducted or sponsored or is conducting or sponsoring, except where such failure would not, singly or in the aggregate, reasonably be expected to be material to the Company and its Subsidiaries, taken as a whole; all such submissions were in material compliance with applicable laws and rules and regulations when submitted and no material deficiencies have been asserted by the FDA with respect to any such submissions, except any deficiencies which could not, singly or in the aggregate, reasonably be expected to be material to the Company and its Subsidiaries, taken as a whole.

(s) Title to Property. The Company and its Subsidiaries have good and marketable title to all real property owned by the Company and its Subsidiaries and good title to all other properties owned by them that are material to the business of the Company, in each case, free and clear of all mortgages, pledges, liens, security interests, claims, restrictions or encumbrances of any kind except such as (a) are described in the Prospectus or (b) do not, singly or in the aggregate, materially affect the value of such property and do not interfere with the use made and proposed to be made of such property by the Company or any of its Subsidiaries; and all of the leases and subleases material to the business of the Company and its Subsidiaries, considered as one enterprise, and under which the Company or any of its Subsidiaries holds properties described in the Prospectus, are in full force and effect, and neither the Company nor any Subsidiary has any notice of any material claim of any sort that has been asserted by anyone adverse to the rights of the Company or any Subsidiary under any of the leases or subleases mentioned above, or affecting or questioning the rights of the Company or such Subsidiary to the continued possession of the leased or subleased premises under any such lease or sublease.

(t) Investment Company Act. The Company is not required, and upon the issuance and sale of the Shares as herein contemplated and the application of the net proceeds therefrom as described in the Prospectus will not be required, to register as an “investment company” within the meaning of the Investment Company Act of 1940, as amended (the “1940 Act”).

(u) Environmental Laws. Except as would not reasonably be expected to, singly or in the aggregate, result in a Material Adverse Effect and as otherwise described in the Prospectus, (A) neither the Company nor any of its Subsidiaries is in violation of any federal, state, local or foreign statute, law, rule, regulation, ordinance, code, policy or rule of common law or any judicial or administrative interpretation thereof, including any judicial or administrative order, consent, decree or judgment, relating to pollution or protection of human health, the environment (including, without limitation, ambient air, surface water, groundwater, land surface or subsurface strata) or wildlife, including, without limitation, laws and regulations relating to the release or threatened release of chemicals, pollutants, contaminants, wastes, toxic substances, hazardous substances, petroleum or petroleum products, asbestos-containing materials or mold (collectively, “Hazardous Materials”) or to the manufacture, processing, distribution, use, treatment, storage, disposal, transport or handling of Hazardous Materials (collectively, “Environmental Laws”), (B) the Company and its Subsidiaries have all permits, authorizations and approvals required under any applicable Environmental Laws and are each in compliance with their requirements, (C) there are no pending or, to the Company’s knowledge, threatened administrative, regulatory or judicial actions, suits, demands, demand letters, claims, liens, notices of noncompliance or violation, investigation or proceedings relating to any Environmental Law against the Company or any of its Subsidiaries and (D) there are no events or circumstances that would reasonably be expected to form the basis of an order for clean-up or remediation, or an action, suit or proceeding by any private party or governmental body or agency, against or affecting the Company or any of its Subsidiaries relating to Hazardous Materials or any Environmental Laws.

(v) Registration Rights. There are no persons with registrations rights or other similar rights to have any securities registered pursuant to the Registration Statement or otherwise registered by the Company under the 1933 Act.

(w) Accounting Controls and Disclosure Controls. The Company and each of its Subsidiaries maintain a system of internal accounting controls designed to provide reasonable assurances that (A) transactions are executed in accordance with management’s general or specific authorization; (B) transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and to maintain accountability for assets; (C) access to assets is permitted only in accordance with management’s general or specific authorization; and (D) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences. Except as described in the Prospectus, since the end of the Company’s most recent audited fiscal year, there has been (1) no material weakness in the Company’s internal control over financial reporting (whether or not remediated) and (2) no change in the Company’s internal control over financial reporting that has materially affected, or is reasonably likely to materially affect, the Company’s internal control over financial reporting.

The Company and its consolidated Subsidiaries employ disclosure controls and procedures that are designed to ensure that information required to be disclosed by the Company in the reports that it files or submits under the 1934 Act is recorded, processed, summarized and reported, within the time periods specified in the Commission’s rules and forms, and is accumulated and communicated to the Company’s management, including its principal executive officer or officers and principal financial officer or officers, as appropriate, to allow timely decisions regarding disclosure.

(x) S-3 Eligibility. (A)(i) At the time of filing the Registration Statement and (ii) at the time of the most recent amendment thereto for the purposes of complying with Section 10(a)(3) of the 1933 Act (whether such amendment was by post-effective amendment, incorporated report filed pursuant to Section 13 or 15(d) of the 1934 Act or form of prospectus), the Company met the then applicable requirements for use of Form S-3 under the 1933 Act and (B) at the earliest time after the filing of the Registration Statement that the Company or another offering participant made a bona fide offer (within the meaning of Rule 164(h)(2) under the 1933 Act) of the Shares, the Company was not an “ineligible issuer” as defined in Rule 405 under the 1933 Act. The Common Stock is an “actively-traded security” exempted from the requirements of Rule 101 of Regulation M under the 1934 Act by subsection (c)(1) of such rule.

(y) No Commissions. Neither the Company nor any of its Subsidiaries is a party to any contract, agreement or understanding with any person (other than as contemplated by this Agreement or any Terms Agreement) that would give rise to a valid claim against the Company or any of its Subsidiaries or the Agent for a brokerage commission, finder's fee or like payment in connection with the offering and sale of the Shares.

(z) Deemed Representation. Any certificate signed by any officer of the Company delivered to the Agent or to counsel for the Agent pursuant to or in connection with this Agreement or any Terms Agreement shall be deemed a representation and warranty by the Company to the Agent as to the matters covered thereby as of the date or dates indicated in such certificate.

(aa) Compliance with the Sarbanes-Oxley Act. There is and has been no failure on the part of the Company or any of the Company's directors or officers, in their capacities as such, to comply in all material respects with any provision of the Sarbanes-Oxley Act of 2002 and the rules and regulations promulgated in connection therewith (the "Sarbanes-Oxley Act"), including Section 402 related to loans and Sections 302 and 906 related to certifications.

(bb) FINRA Exemption. To enable the Agent to rely on Rule 5110(b)(7)(C)(i) of FINRA, the Company represents that the Company (i) has a non-affiliate, public common equity float of at least \$150 million or a non-affiliate, public common equity float of at least \$100 million and annual trading volume of at least three million shares and (ii) has been subject to the Exchange Act reporting requirements for a period of at least 36 months.

(cc) Payment of Taxes. All United States federal income tax returns of the Company and its Subsidiaries required by law to be filed have been filed and all taxes shown by such returns or otherwise assessed, which are due and payable, have been paid, except assessments against which appeals have been or will be promptly taken and as to which adequate reserves have been provided and except where the failure to do so would not reasonably be expected to have a Material Adverse Effect. The United States federal income tax returns of the Company through the fiscal year ended December 31, 2019 have been filed and no assessment in connection therewith has been made against the Company. The Company and its Subsidiaries have filed all other tax returns that are required to have been filed by them pursuant to applicable foreign, state, local or other law and have paid all taxes due pursuant to such returns or pursuant to any assessment received by the Company and its Subsidiaries, except for such taxes, if any, as are being contested in good faith and as to which adequate reserves have been provided and except where the failure to do so would reasonably be expected to have a Material Adverse Effect. The charges, accruals and reserves on the books of the Company in respect of any income and corporation tax liability for any years not finally determined are adequate to meet any assessments or re-assessments for additional income tax for any years not finally determined.

(dd) Insurance. The Company and its Subsidiaries carry or are entitled to the benefits of insurance, with financially sound and reputable insurers, in such amounts and covering such risks as is generally maintained by companies of established repute engaged in the same or similar business, and all such insurance is in full force and effect. The Company has no reason to believe that it or any Subsidiary will not be able (A) to renew its existing insurance coverage as and when such policies expire or (B) to obtain comparable coverage from similar institutions as may be necessary or appropriate to conduct its business as now conducted and at a cost that would not result in a Material Adverse Effect. Neither of the Company nor any Subsidiary has been denied any material insurance coverage which it has sought or for which it has applied.

(ee) Statistical and Market-Related Data. Any statistical and market-related data included in the Registration Statement, the General Disclosure Package and the Prospectus are based on or derived from sources that the Company believes to be reliable and accurate, and, where required, the Company has obtained the written consent to the use of such data from such sources.

(ff) Foreign Corrupt Practices Act. Neither the Company nor, to the knowledge of the Company, any director, officer, agent, employee, affiliate or other person acting on behalf of the Company or any of its Subsidiaries is aware of or has taken any action, directly or indirectly, that would result in a violation by such persons of the Foreign Corrupt Practices Act of 1977, as amended, and the rules and regulations thereunder (the "FCPA"), including, without limitation, making use of the mails or any means or instrumentality of interstate commerce corruptly in furtherance of an offer, payment, promise to pay or authorization of the payment of any money, or other property, gift, promise to give, or authorization of the giving of anything of value to any "foreign official" (as such term is defined in the FCPA) or any foreign political party or official thereof or any candidate for foreign political office, in contravention of the FCPA and the Company and, to the knowledge of the Company, its affiliates have conducted their businesses in compliance with the FCPA and have instituted and maintain policies and procedures designed to ensure, and which are reasonably expected to continue to ensure, continued compliance therewith.

(gg) Money Laundering Laws. The operations of the Company are and have been conducted at all times in compliance with applicable financial recordkeeping and reporting requirements of the Currency and Foreign Transactions Reporting Act of 1970, as amended, the money laundering statutes of all applicable jurisdictions, the applicable rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any governmental agency (collectively, the "Money Laundering Laws") and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company with respect to the Money Laundering Laws is pending or, to the best knowledge of the Company, threatened.

(hh) OFAC. Neither the Company nor, to the knowledge of the Company, any director, officer, agent, employee, affiliate or person acting on behalf of the Company is currently subject to any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Treasury Department ("OFAC"); and the Company will not directly or indirectly use the proceeds of the offering, or lend, contribute or otherwise make available such proceeds to any Subsidiary, joint venture partner or other person or entity, for the purpose of financing the activities of any person whom the Company has knowledge currently subject to any U.S. sanctions administered by OFAC.

(ii) Tests and Preclinical and Clinical Studies. The Company has operated and currently is in compliance with the United States Federal Food, Drug, and Cosmetic Act, all applicable rules and regulations of the FDA and other federal, state, local and foreign governmental bodies exercising comparable authority, except where the failure to so operate or be in compliance would not reasonably be expected to have a Material Adverse Effect. The preclinical and clinical studies conducted by or, to the Company's knowledge, on behalf of the Company that are described in the Registration Statement and the Prospectus were, and if still pending, are being, conducted in all material respects in accordance with experimental protocols, procedures and controls pursuant to, where applicable, accepted professional and scientific standards for products or product candidates comparable to those being developed by the Company; the descriptions of the tests and preclinical and clinical studies, and results thereof, conducted by or, to the Company's knowledge on the behalf of the Company contained in the Registration Statement, the General Disclosure Package and the Prospectus are accurate and complete in all material respects; the Company is not aware of any trials or studies not described or referred to in the Registration Statement, the General Disclosure Package and the Prospectus, the results of which reasonably call into question the results described or referred to in the Registration Statement, the General Disclosure Package and the Prospectus; the Company is not in receipt of any notices or correspondence from the FDA or any foreign, state or local governmental body exercising comparable authority that reasonably call into question results of the trials or studies described or referred to in the Registration Statement, the General Disclosure Package and the Prospectus; and the Company has not received any notice or correspondence from the FDA or any foreign, state or local governmental body exercising comparable authority requiring the termination, suspension, or clinical hold of any tests or preclinical or clinical studies, or such notice or correspondence from any Institutional Review Board or comparable authority requiring the termination or suspension of a clinical study, conducted by or on behalf of the Company, which termination, suspension, or clinical hold would reasonably be expected to have a Material Adverse Effect.

(jj) Cybersecurity: Data Protection. The Company's information technology assets and equipment, computers, systems, networks, hardware, software, websites, applications, and databases (collectively, "IT Systems") are adequate for, and operate and perform in all material respects as required in connection with the operation of the business of the Company as currently conducted and, to the Company's knowledge, based on commercially reasonable security measures, free and clear of all material bugs, errors, defects, Trojan horses, time bombs, malware and other corruptants. The Company has implemented and maintained commercially reasonable controls, policies, procedures, and safeguards to maintain and protect its material confidential information and the integrity and security of all IT Systems and data (including all personal data and sensitive, confidential or regulated data (collectively, the "Confidential Data")) used in connection with their businesses, and, to the Company's knowledge, based on commercially reasonable security measures, there have been no breaches, violations, outages or unauthorized uses of or accesses to same, except for those that have been remedied without material cost or liability or the duty to notify any other person, nor any incidents under internal review or investigations relating to the same and except as would not individually or in the aggregate have a Material Adverse Effect. To the Company's knowledge, the Company is presently in material compliance with all applicable laws or statutes and all judgments, orders, rules and regulations of any court or arbitrator or governmental or regulatory authority, internal policies and contractual obligations relating to the privacy and security of IT Systems and Confidential Data and to the protection of such IT Systems and Confidential Data from unauthorized use, access, misappropriation or modification, except where failure to do so would not reasonably be expected to have a Material Adverse Effect.

(kk) Compliance with Data Privacy Laws. The Company is in compliance in all material respects with all applicable data privacy and security laws and regulations, including without limitation HIPAA and the European Union General Data Protection Regulation ("GDPR") (EU 2016/679) (collectively, the "Privacy Laws"). The Company has in place and complies in all material respects with policies and procedures relating to data privacy and security and the collection, use, disclosure and other processing of Personal Data (the "Policies"). The Company has at all times made all disclosures to users or customers required for compliance in all material respects with applicable Privacy Laws and none of such disclosures made or contained in any Policy have, to the knowledge of the Company, been inaccurate, deceptive, or misleading in any material respect or in material violation of any applicable Privacy Laws. The Company has not received written notice of any claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action from or by any court or arbitrator or governmental or regulatory authority or third party alleging any material violation of any Privacy Laws or Policies and, to the Company's knowledge, is no such claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action is threatened.

Section 2. Sale and Delivery of Shares.

(a) Subject to the terms and conditions set forth herein, the Company agrees to issue and sell exclusively through the Agent acting as sales agent or directly to the Agent acting as principal from time to time, and the Agent agrees to use its commercially reasonable efforts to sell as sales agent for the Company, the Shares. Sales of the Shares, if any, through the Agent acting as sales agent or directly to the Agent acting as principal may be made in negotiated transactions or transactions that are deemed to be "at the market offerings" as defined in Rule 415(a)(4) under the 1933 Act, including sales made directly on the Nasdaq or any other existing trading market for the Common Stock.

(b) The Shares are to be sold on a daily basis or otherwise as shall be agreed to by the Company and the Agent on that trading day (other than a day on which the Nasdaq is scheduled to close prior to its regular weekday closing time, each, a "Trading Day") that the Company has satisfied its obligations under Section 6 of this Agreement and that the Company has instructed the Agent to make such sales. For the avoidance of doubt, the foregoing limitation shall not apply to sales solely to employees or security holders of the Company or its Subsidiaries, or to a trustee or other person acquiring such securities for the accounts of such persons in which Stifel Nicolaus is acting for the Company in a capacity other than as Agent under this Agreement. On any Trading Day, the Company may instruct the Agent by telephone (confirmed promptly by telecopy or email, together with any certificates or statements that the Agent may reasonably require, which confirmation will be promptly acknowledged by the Agent) as to the maximum number of Shares to be sold by the Agent on such day (in any event not in excess of the Maximum Amount) and the minimum price per Share at which such Shares may be sold. Subject to the terms and conditions hereof, the Agent shall use its commercially reasonable efforts to sell as sales agent all of the Shares so designated by the Company. The Company and the Agent each acknowledge and agree that (A) there can be no assurance that the Agent will be successful in selling the Shares, (B) the Agent will incur no liability or obligation to the

Company or any other person or entity if they do not sell Shares for any reason other than a failure by the Agent to use its commercially reasonable efforts consistent with its normal trading and sales practices and applicable law and regulations to sell such Shares as required by this Agreement, and (C) the Agent shall be under no obligation to purchase Shares on a principal basis except as otherwise specifically agreed by each of the Agent and the Company pursuant to a Terms Agreement. In the event of a conflict between the terms of this Agreement and the terms of a Terms Agreement, the terms of such Terms Agreement will control.

(c) Notwithstanding the foregoing, the Company shall not authorize the issuance and sale of, and the Agent as sales agent shall not be obligated to use its commercially reasonable efforts to sell, any Shares (i) at a price lower than the minimum price therefor authorized from time to time, or (ii) in a number in excess of the number of Shares authorized from time to time to be issued and sold under this Agreement, in each case, by the Company's board of directors, or a duly authorized committee thereof, and notified to the Agent in writing. In addition, the Company may, upon notice to the Agent, suspend the offering of the Shares or the Agent may, upon notice to the Company, suspend the offering of the Shares with respect to which the Agent is acting as sales agent for any reason and at any time; provided, however, that such suspension or termination shall not affect or impair the parties' respective obligations with respect to the Shares sold hereunder prior to the giving of such notice. Any notice given pursuant to the preceding sentence may be given by telephone (confirmed promptly by telecopy or email, which confirmation will be promptly acknowledged).

(d) The gross sales price of any Shares sold pursuant to this Agreement by the Agent acting as sales agent of the Company shall be the market price prevailing at the time of sale for shares of the Company's Common Stock sold by the Agent on the Nasdaq or otherwise, at prices relating to prevailing market prices or at negotiated prices. The compensation payable to the Agent for sales of Shares with respect to which the Agent acts as sales agent shall be up to 3.0% of the gross sales price of the Shares for amounts of Shares sold pursuant to this Agreement. The Company may sell Shares to the Agent, acting as principal, at a price agreed upon with the Agent at the relevant Applicable Time and pursuant to a separate Terms Agreement. The remaining proceeds, after further deduction for any transaction fees imposed by any governmental, regulatory or self-regulatory organization in respect of such sales, shall constitute the net proceeds to the Company for such Shares (the "Net Proceeds"). The Agent shall notify the Company as promptly as practicable if any deduction referenced in the preceding sentence will be required.

(e) If acting as a sales agent hereunder, the Agent shall provide written confirmation to the Company following the close of trading on the Nasdaq, each day in which Shares are sold under this Agreement setting forth the number of Shares sold on such day, the aggregate gross sales proceeds of the Shares, the Net Proceeds to the Company and the compensation payable by the Company to such Agent with respect to such sales.

(f) Under no circumstances shall the aggregate offering price or number, as the case may be, of Shares sold pursuant to this Agreement and any Terms Agreement exceed the aggregate offering price or number, as the case may be, of Shares of Common Stock (i) available for issuance under the Prospectus and the then currently effective Registration Statement, (ii) authorized from time to time to be issued and sold under this Agreement or any Terms Agreement by the Company's board of directors, or a duly authorized committee thereof, and notified to the Agent in writing or (iii) authorized but unissued pursuant to the Company's certificate of incorporation, the lesser of (i), (ii) or (iii), the "Maximum Amount". In addition, under no circumstances shall any Shares with respect to which the Agent acts as sales agent be sold at a price lower than the minimum price therefor authorized from time to time by the Company's board of directors, or a duly authorized committee thereof, and notified to the Agent in writing. Notwithstanding anything to the contrary contained herein, the parties hereto agree that compliance with the limitations set forth in this Section 2(f) on the amount of Shares issued and sold under this Agreement shall be the sole responsibility of the Company and that the Agent shall have no obligation in connection with such compliance.

(g) Settlement for sales of Shares pursuant to this Section 2 will occur on the second business day that is also a Trading Day following the trade date on which such sales are made, unless another date shall be agreed to by the Company and the Agent (each such day, a "Settlement Date"). On each Settlement Date, the Shares sold through the Agent for settlement on such date shall be delivered by the Company to the Agent against payment of the Net Proceeds from the sale of such Shares. Settlement for all Shares shall be effected by book-entry delivery of Shares to the Agent's account at The Depository Trust Company against payments by the Agent of the Net Proceeds from the sale of such Shares in same day funds delivered to an account designated by the Company. If the Company shall default on its obligation to deliver Shares on any Settlement Date, the Company shall (i) indemnify and hold the Agent harmless against any loss, claim or damage arising from or as a result of such default by the Company and (ii) pay the Agent any commission to which it would otherwise be entitled absent such default.

(h) Notwithstanding any other provision of this Agreement, the Company and the Agent agree that no sales of Shares shall take place, and the Company shall not request the sale of any Shares that would be sold, and the Agent shall not be obligated to sell, during any other period in which the Company is, or could be deemed to be, in possession of material non-public information; provided that, unless otherwise agreed between the Company and the Agent, for purposes of this paragraph (h) such period shall be deemed to end on the date on which the Company's next subsequent Annual Report on Form 10-K or Quarterly Report on Form 10-Q, as the case may be, is filed with the Commission.

(i) At each Applicable Time, Settlement Date, Registration Amendment Date and each Company Periodic Report Date, the Company shall be deemed to have affirmed each representation and warranty contained in this Agreement. Any obligation of the Agent to use its commercially reasonable efforts to sell the Shares on behalf of the Company as sales agent shall be subject to the continuing accuracy of the representations and warranties of the Company herein, to the performance by the Company of its obligations hereunder and to the continuing satisfaction of the additional conditions specified in Section 6 of this Agreement.

Section 3. Covenants. The Company agrees with the Agent:

(a) During any period when the delivery of a prospectus is required in connection with the offering or sale of Shares (whether physically or through compliance with Rule 153 or 172, or in lieu thereof, a notice referred to in Rule 173(a) under the 1933 Act), (i) to make no further amendment or any supplement to the Registration Statement or the Prospectus

prior to any Settlement Date which shall be disapproved by the Agent promptly after reasonable notice thereof and to advise the Agent, promptly after it receives notice thereof, of the time when any amendment to the Registration Statement has been filed or becomes effective or any amendment or supplement to the Prospectus has been filed and to furnish the Agent with copies thereof, (ii) make no further amendment or any supplement to the Registration Statement or the Prospectus relating to the Shares unless a copy thereof has been submitted to the Agent within a reasonable period of time before the filing and the Agent has not reasonably objected thereto (provided, however, that (A) the failure of the Agent to make such objection shall not relieve the Company of any obligation or liability hereunder, or affect the Agent's right to rely on the representations and warranties made by the Company in this Agreement and (B) the Company has no obligation to provide the Agent any advance copy of such filing or to provide the Agent an opportunity to object to such filing if the filing does not name the Agent or does not relate to the transaction herein provided), (iii) to file promptly all other material required to be filed by the Company with the Commission pursuant to Rule 433(d) under the 1933 Act, (iv) to file promptly all reports and any definitive proxy or information statements required to be filed by the Company with the Commission pursuant to Section 13(a), 13(c), 14 or 15(d) of the 1934 Act, (v) to advise the Agent, promptly after it receives notice thereof, of the issuance by the Commission of any stop order or of any order preventing or suspending the use of the Prospectus or other prospectus in respect of the Shares, of the suspension of the qualification of the Shares for offering or sale in any jurisdiction, of the initiation or threatening of any proceeding for any such purpose, or of any request by the Commission for the amending or supplementing of the form of the Registration Statement or the Prospectus or for additional information, and (vi) in the event of the issuance of any such stop order or of any such order preventing or suspending the use of the Prospectus in respect of the Shares or suspending any such qualification, to promptly use its commercially reasonable efforts to obtain the withdrawal of such order; and in the event of any such issuance of a notice of objection, promptly to take such reasonable steps as may be necessary to permit offers and sales of the Shares by the Agent, which may include, without limitation, amending the Registration Statement or filing a new registration statement, at the Company's expense (references herein to the Registration Statement shall include any such amendment or new registration statement). Notwithstanding the foregoing, the Company shall not be obligated to furnish copies of any report or statement filed with the Commission to the extent it is available on the Commission's Electronic Data Gathering, Analysis, and Retrieval System ("EDGAR").

(b) Promptly from time to time to take such action as the Agent may reasonably request to qualify the Shares for offering and sale under the securities laws of such jurisdictions as the Agent may request and to comply with such laws so as to permit the continuance of sales and dealings therein in such jurisdictions for as long as may be necessary to complete the sale of the Shares, provided that in connection therewith the Company shall not be required to qualify as a foreign corporation or to file a general consent to service of process in any jurisdiction; and to promptly advise the Agent of the receipt by the Company of any notification with respect to the suspension of the qualification of the Shares for offer or sale in any jurisdiction or the initiation or threatening of any proceeding for such purpose.

(c) During any period when the delivery of a prospectus is required (whether physically or through compliance with Rules 153 or 172, or in lieu thereof, a notice referred to in Rule 173(a) under the 1933 Act) in connection with the offering or sale of Shares, the Company will make available to the Agent, as soon as practicable after the execution of this Agreement, and thereafter from time to time furnish to the Agent, copies of the most recent Prospectus in such quantities and at such locations as the Agent may reasonably request for the purposes contemplated by the 1933 Act. During any period when the delivery of a prospectus is required (whether physically or through compliance with Rules 153 or 172, or in lieu thereof, a notice referred to in Rule 173(a) under the 1933 Act) in connection with the offering or sale of Shares, and if at such time any event shall have occurred as a result of which the Prospectus as then amended or supplemented would include an untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made when such Prospectus is delivered, not misleading, or, if for any other reason it shall be necessary during such same period to amend or supplement the Prospectus or to file under the 1934 Act any document incorporated by reference in the Prospectus in order to comply with the 1933 Act or the 1934 Act, to notify the Agent and to file such document and to prepare and furnish without charge to the Agent as many written and electronic copies as the Agent may from time to time reasonably request of an amended Prospectus or a supplement to the Prospectus which will correct such statement or omission or effect such compliance. Notwithstanding the foregoing, the Company shall not be required to furnish any document to the extent such document is available on EDGAR.

(d) To make generally available to its securityholders as soon as practicable, but in any event not later than sixteen months after the effective date of the Registration Statement (as defined in Rule 158(c) under the 1933 Act), an earnings statement of the Company and its Subsidiaries (which need not be audited) complying with Section 11(a) of the 1933 Act and the rules and regulations of the Commission thereunder (including, at the option of the Company, Rule 158).

(e) If applicable, to pay the required Commission filing fees relating to the Shares within the time required by Rule 456(b)(1) under the 1933 Act without regard to the proviso therein and otherwise in accordance with Rules 456(b) and 457(r) under the 1933 Act.

(f) To use the Net Proceeds received by it from the sale of the Shares pursuant to this Agreement and any Terms Agreement in the manner specified in the General Disclosure Package.

(g) In connection with the offering and sale of the Shares, the Company will file with the Nasdaq all documents and notices, and make all certifications, required by the Nasdaq of companies that have securities that are listed or quoted on the Nasdaq and will maintain such listings or quotations.

(h) To not take, directly or indirectly, and to cause its affiliates to refrain from taking, any action designed to cause or result in, or that has constituted or might reasonably be expected to constitute, under the 1934 Act or otherwise, the stabilization or manipulation of the price of any securities of the Company to facilitate the sale or resale of the Shares.

(i) At each Applicable Time, each Settlement Date, each Registration Statement Amendment Date (as defined below), each Company Periodic Report Date (as defined below) and each date on which Shares are delivered to the Agent pursuant to a Terms Agreement, the Company shall be deemed to have affirmed each representation, warranty, covenant and other agreement contained in this Agreement or any Terms Agreement. In each Annual Report on Form 10-K or Quarterly Report on Form 10-Q filed by the Company in respect of any quarter in which sales of Shares were made by or through the Agent under this Agreement or any Terms Agreement (each date on which any such document is filed, and any date on which

an amendment to any such document is filed, a “Company Periodic Report Date”), the Company shall set forth with regard to such quarter the number of Shares sold through the Agent under this Agreement or any Terms Agreement and the Net Proceeds received by the Company with respect to sales of Shares pursuant to this Agreement or any Terms Agreement.

(j) Upon commencement of the offering of Shares under this Agreement and each time the Shares are delivered to the Agent as principal on a Settlement Date and promptly after each (i) date the Registration Statement or the Prospectus shall be amended or supplemented (other than (1) by an amendment or supplement providing solely for the determination of the terms of the Shares, (2) in connection with the filing of a prospectus supplement that contains solely the information set forth in Section 3(i), (3) in connection with the filing of any current reports on Form 8-K (other than any current reports on Form 8-K which contain financial statements, supporting schedules or other financial data, including any current report on Form 8-K under Item 2.02 of such form that is considered “filed” under the 1934 Act) or (4) by a prospectus supplement relating to the offering of other securities (including, without limitation, other shares of Common Stock)) (each such date, a “Registration Statement Amendment Date”) and (ii) Company Periodic Report Date, the Company will furnish or cause to be furnished forthwith to the Agent a certificate dated the date of effectiveness of such amendment or the date of filing with the Commission of such supplement or other document, as the case may be, in a form reasonably satisfactory to the Agent to the effect that the statements contained in the certificate referred to in Section 6(h) of this Agreement which were last furnished to the Agent are true and correct at the time of such amendment, supplement or filing, as the case may be, as though made at and as of such time (except that such statements shall be deemed to relate to the Registration Statement, the General Disclosure Package and the Prospectus as amended and supplemented to such time) or, in lieu of such certificate, a certificate of the same tenor as the certificate referred to in said Section 6(h), but modified as necessary to relate to the Registration Statement and the Prospectus as amended and supplemented, or to the document incorporated by reference into the Prospectus, to the time of delivery of such certificate. As used in this paragraph, to the extent there shall be an Applicable Time on or following the date referred to in clause (i) or (ii) above, promptly shall be deemed to be on or prior to the next succeeding Applicable Time. Notwithstanding the foregoing, the Company shall not be required to deliver any such certificate if it has notified the Agent that it does not then presently intend to make sales of Shares under this Agreement; provided, however, that such a certificate shall then be required to be delivered to the Agent prior to any further sales of Shares under this Agreement covering the period which would most recently have been required but for such notice.

(k) Upon commencement of the offering of Shares under this Agreement and each time the Shares are delivered to the Agent as principal on a Settlement Date, and promptly after each (i) Registration Statement Amendment Date and (ii) Company Periodic Report Date, the Company will furnish or cause to be furnished to the Agent and to counsel to the Agent the written opinion and letter of each Company counsel or other counsel reasonably satisfactory to the Agent, dated the date of effectiveness of such amendment or the date of filing with the Commission of such supplement or other document, as the case may be, in a form and substance reasonably satisfactory to the Agent and its counsel, of the same tenor as the opinions and letters referred to in Section 6(c) of this Agreement, but modified as necessary to relate to the Registration Statement, the General Disclosure Package and the Prospectus as amended and supplemented, or to the document incorporated by reference into the Prospectus, to the time of delivery of such opinion and letter or, in lieu of such opinion and letter, counsel last furnishing such letter to the Agent shall furnish such Agent with a letter substantially to the effect that the Agent may rely on such last opinion and letter to the same extent as though each were dated the date of such letter authorizing reliance (except that statements in such last letter shall be deemed to relate to the Registration Statement and the Prospectus as amended and supplemented to the time of delivery of such letter authorizing reliance). As used in this paragraph, to the extent there shall be an Applicable Time on or following the date referred to in clause (i) or (ii) above, promptly shall be deemed to be on or prior to the next succeeding Applicable Time. Notwithstanding the foregoing, the Company shall not be required to deliver any such opinion or letter if it has notified the Agent that it does not then presently intend to make sales of Shares under this Agreement; provided, however, that such an opinion or letter shall then be required to be delivered to the Agent prior to any further sales of Shares under this Agreement covering the period which would most recently have been required but for such notice.

(l) Upon commencement of the offering of Shares under this Agreement and each time the Shares are delivered to the Agent as principal on a Settlement Date, and promptly after each (i) Registration Statement Amendment Date and (ii) Company Periodic Report Date, the Company will cause Ernst & Young LLP, or other independent accountants reasonably satisfactory to the Agent, to furnish to the Agent a letter, dated the date of effectiveness of such amendment or the date of filing of such supplement or other document with the Commission, as the case may be, in form reasonably satisfactory to the Agent and its counsel, of the same tenor as the letter referred to in Section 6(f) hereof, but modified as necessary to relate to the Registration Statement, the Disclosure Package and the Prospectus, as amended and supplemented, or to the document incorporated by reference into the Prospectus, to the date of such letter. As used in this paragraph, to the extent there shall be an Applicable Time on or following the date referred to in clause (i) or (ii) above, promptly shall be deemed to be on or prior to the next succeeding Applicable Time. Notwithstanding the foregoing, the Company shall not be required to deliver any such letter if it has notified the Agent that it does not then presently intend to make sales of Shares under this Agreement; provided, however, that such letter shall then be required to be delivered to the Agent prior to any further sales of Shares under this Agreement covering the period which would most recently have been required but for such notice.

(m) The Company consents to Stifel Nicolaus trading in the Company’s Common Stock for Stifel Nicolaus’ own account and for the account of its clients at the same time as sales of Shares occur pursuant to this Agreement or any Terms Agreement.

(n) If, to the knowledge of the Company, all filings required by Rule 424 in connection with this offering shall not have been made or the representations in Section 1(a) shall not be true and correct on the applicable Settlement Date, the Company will offer to any person who has agreed to purchase Shares from the Company as the result of an offer to purchase solicited by the Agent the right to refuse to purchase and pay for such Shares.

(o) The Company will cooperate timely with any reasonable due diligence review conducted by the Agent or its counsel from time to time in connection with the transactions contemplated hereby or in any Terms Agreement, including, without limitation, and upon reasonable notice providing information and making available documents and appropriate corporate officers, during regular business hours and at the Company’s principal offices, as the Agent may reasonably request.

(p) During a period when the Company has instructed the Agent to sell Shares pursuant to this Agreement, the Company will not, without (i) giving the Agent at least three business days' prior written notice specifying the nature of the proposed sale and the date of such proposed sale and (ii) the Agent suspending activity under this program for such period of time as requested by the Company or as deemed appropriate by the Agent in light of the proposed sale, (A) offer, pledge, announce the intention to sell, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant for the sale of, lend or otherwise transfer or dispose of, directly or indirectly, any shares of Common Stock or securities convertible into or exchangeable or exercisable for or repayable with Common Stock, or file any registration statement under the 1933 Act with respect to any of the foregoing (other than a shelf registration statement under Rule 415 under the 1933 Act, a registration statement on Form S-8 or post-effective amendment to the Registration Statement) or (B) enter into any swap or other agreement or any transaction that transfers in whole or in part, directly or indirectly, any of the economic consequence of ownership of the Common Stock, or any securities convertible into or exchangeable or exercisable for or repayable with Common Stock, whether any such swap or transaction described in clause (A) or (B) above is to be settled by delivery of Common Stock or such other securities, in cash or otherwise. The foregoing sentence shall not apply to (x) any securities issuable upon the exercise or conversion of warrants, options, convertible securities or other rights either in existence prior to the date of this Agreement or issued thereafter in compliance with this Section 3(p), (y) the Shares to be offered and sold through the Agent pursuant to this Agreement or any Terms Agreement and (z) equity incentive awards approved by the board of directors of the Company or the compensation committee thereof or the issuance of Common Stock upon exercise thereof.

Section 4. Free Writing Prospectus.

(a) (i) The Company represents and agrees that without the prior consent of the Agent, it has not made and will not make any offer relating to the Shares that would constitute a "free writing prospectus" as defined in Rule 405 under the 1933 Act; and

(ii) the Agent represents and agrees that, without the prior consent of the Company, it has not made and will not make any offer relating to the Shares that would constitute a free writing prospectus required to be filed with the Commission.

(b) The Company has complied and will comply with the requirements of Rule 433 under the 1933 Act applicable to any Issuer Free Writing Prospectus (including any free writing prospectus identified in Section 4(a) hereof), including timely filing with the Commission or retention where required and legending.

Section 5. Payment of Expenses. The Company covenants and agrees with the Agent that the Company will pay or cause to be paid the following:

(i) the fees, disbursements and expenses of the Company's counsel and accountants in connection with the registration of the Shares under the 1933 Act and all other expenses in connection with the preparation, printing and filing of the Registration Statement, the Basic Prospectus, Prospectus Supplement, any Issuer Free Writing Prospectus and the Prospectus and amendments and supplements thereto and the mailing and delivering of copies thereof to the Agent; (ii) the cost of printing or producing this Agreement or any Terms Agreement, any Blue Sky and Legal Investment Memoranda, closing documents (including any compilations thereof) and any other documents in connection with the offering, purchase, sale and delivery of the Shares; (iii) all expenses in connection with the qualification of the Shares for offering and sale under state securities laws as provided in Section 3(b) hereof, including the reasonable fees and disbursements of counsel for the Agent in connection with such qualification and in connection with the Blue Sky and Legal Investment Surveys; (iv) any filing fees incident to, and the reasonable fees and disbursements of counsel for the Agent in connection with, any required review by the Financial Industry Regulatory Authority, Inc. ("FINRA") of the terms of the sale of the Shares; (v) all fees and expenses in connection with listing or quoting the Shares on the Nasdaq; (vi) the cost of preparing the Shares; (vii) the costs and charges of any transfer agent or registrar or any dividend distribution agent; and (viii) all other costs and expenses incident to the performance of its obligations hereunder which are not otherwise specifically provided for in this Section. It is understood, however, that, except as provided in this Section, and Section 7 hereof, the Agent will pay all of its own costs and expenses, including the fees of its counsel, transfer taxes on resale of any of the Shares by it, and any advertising expenses connected with any offers it may make.

Section 6. Conditions of Agent's Obligation. The obligations of the Agent hereunder shall be subject, in its discretion, to the condition that all representations and warranties and other statements of the Company herein or in certificates of any officer of the Company delivered pursuant to the provisions hereof are true and correct as of the time of the execution of this Agreement, the date of any executed Terms Agreement and as of each Registration Statement Amendment Date, Company Periodic Report Date, Applicable Time and Settlement Date, to the condition that the Company shall have performed all of its obligations hereunder theretofore to be performed, and the following additional conditions:

(a) The Prospectus Supplement shall have been filed with the Commission pursuant to Rule 424(b) under the 1933 Act on or prior to the date hereof and in accordance with Section 3(a) hereof, any other material required to be filed by the Company pursuant to Rule 433(d) under the 1933 Act shall have been filed with the Commission within the applicable time periods prescribed for such filings by Rule 433; no stop order suspending the effectiveness of the Registration Statement or any part thereof shall have been issued and no proceeding for that purpose shall have been initiated or threatened by the Commission and no notice of objection of the Commission to the use of the form of the Registration Statement or any post-effective amendment thereto pursuant to Rule 401(g)(2) under the 1933 Act shall have been received; no stop order suspending or preventing the use of the Prospectus or any Issuer Free Writing Prospectus shall have been initiated or threatened by the Commission; and all requests for additional information on the part of the Commission shall have been complied with to the reasonable satisfaction of the Agent.

(b) On the date hereof and on such other dates as reasonably requested by Agent, Dechert LLP, counsel for the Agent, shall have furnished to the Agent such written opinion or opinions, dated as of such date, with respect to such matters as the Agent may reasonably request, and such counsel shall have received such papers and information as they may reasonably request to enable them to pass upon such matters.

(c) On every date specified in Section 3(k) hereof and on such other dates as reasonably requested by Agent, Cooley LLP, counsel for the Company, shall have furnished to the Agent such written opinion or opinions, dated as of such date, in form and substance reasonably satisfactory to the Agent (it being understood and agreed that such opinion shall include a customary “negative assurance” letter).

(d) On every date specified in Section 3(k) hereof and on such other dates as reasonably requested by Agent, Thomas Mancini, Senior Intellectual Property Counsel of the Company, or such other legal representative of the Company that is familiar with intellectual property matters that is reasonably satisfactory to the Agent, shall have furnished to the Agent such written opinion or opinions, dated as of such date, with respect to intellectual property matters of the Company in form and substance reasonably satisfactory to the Agent.

(e) On every date specified in Section 3(k) hereof and on such other dates as reasonably requested by Agent, Thomas Mancini, Senior Intellectual Property Counsel of the Company, or such other legal representative of the Company that is familiar with regulatory and corporate matters that is reasonably satisfactory to the Agent shall have furnished to the Agent such written opinion or opinions, dated as of such date, with respect to regulatory matters of the Company in form and substance reasonably satisfactory to the Agent.

(f) At the dates specified in Section 3(l) hereof and on such other dates as reasonably requested by Agent, the independent accountants of the Company who have certified the financial statements of the Company and its Subsidiaries included or incorporated by reference in the Registration Statement, the General Disclosure Package and the Prospectus shall have furnished to the Agent a letter dated as of the date of delivery thereof and addressed to the Agent in form and substance reasonably satisfactory to the Agent and its counsel, containing statements and information of the type ordinarily included in accountants’ “comfort letters” to underwriters with respect to the financial statements of the Company and its Subsidiaries included or incorporated by reference in the Registration Statement, the General Disclosure Package and the Prospectus.

(g) Prior to commencement of the offering of Shares under this Agreement, the Agent shall have received a certificate, signed on behalf of the Company by its corporate Secretary, in form and substance satisfactory to the Agent and its counsel.

(h) (i) Upon commencement of the offering of Shares under this Agreement and on such other dates as reasonably requested by Agent, the Company will furnish or cause to be furnished promptly to the Agent a certificate of an officer in a form satisfactory to the Agent stating the minimum price for the sale of such Shares pursuant to this Agreement and the maximum number of Shares that may be issued and sold pursuant to this Agreement or, alternatively, maximum gross proceeds from such sales, as authorized from time to time by the Company’s board of directors or a duly authorized committee thereof or, in connection with any amendment, revision or modification of such minimum price or maximum Share number or amount, a new certificate with respect thereto and (ii) on each date specified in Section 3(j) and on such other dates as reasonably requested by Agent, the Agent shall have received a certificate of executive officers of the Company, one of whom shall be the Chief Financial Officer, Chief Accounting Officer, Treasurer, or Executive Vice President in the area of capital markets and investments, dated as of the date thereof, to the effect that (A) there has been no Material Adverse Effect since the date as of which information is given in the General Disclosure Package and the Prospectus as then amended or supplemented, (B) the representations and warranties in Section 1 hereof are true and correct as of such date and (C) the Company has complied with all of the agreements entered into in connection with the transaction contemplated herein and satisfied all conditions on its part to be performed or satisfied hereunder.

(i) Since the date of the latest audited financial statements then included or incorporated by reference in the General Disclosure Package and the Prospectus, no Material Adverse Effect shall have occurred.

(j) The Company shall have complied with the provisions of Section 3(c) hereof with respect to the timely furnishing of prospectuses.

(k) On such dates as reasonably requested by the Agent, the Company shall have conducted due diligence sessions, in form and substance reasonably satisfactory to the Agent.

(l) All filings with the Commission required by Rule 424 under the 1933 Act to have been filed by each Applicable Time or related Settlement Date shall have been made within the applicable time period prescribed for such filing by Rule 424 (without reliance on Rule 424(b)(8)).

(m) The Shares shall have received approval for listing or quotation on the Nasdaq prior to the first Settlement Date.

(n) Prior to any Settlement Date, the Company shall have furnished to the Agent such further information, documents or certificates as the Agent may reasonably request.

Section 7. Indemnification.

(a) The Company will indemnify and hold harmless the Agent against any losses, claims, damages or liabilities, joint or several, to which the Agent may become subject, under the 1933 Act or otherwise, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon an untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, the Basic Prospectus, the Prospectus Supplement or the Prospectus or any amendment or supplement thereto, any Issuer Free Writing Prospectus or any “issuer information” filed or required to be filed pursuant to Rule 433(d) under the 1933 Act, or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, and will reimburse the Agent for any legal or other expenses reasonably incurred by the Agent in connection with investigating or defending any such action or claim as such expenses are incurred; provided, however, that the Company shall not be liable in any such case to the extent that any such loss, claim, damage or liability arises out of or is based upon an untrue statement or alleged untrue statement or omission or alleged omission made in the Registration Statement, the Basic Prospectus, the Prospectus Supplement or the Prospectus, or any amendment or supplement thereto, or any Issuer Free Writing Prospectus, in reliance upon and in strict conformity with written information furnished to the Company by the Agent expressly for use therein.

(b) The Agent will indemnify and hold harmless the Company against any losses, claims, damages or liabilities to which the Company may become subject, under the 1933 Act or otherwise, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon an untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, the Basic Prospectus, the Prospectus Supplement or the Prospectus, or any amendment or supplement thereto, or any Issuer Free Writing Prospectus, or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, in each case to the extent, but only to the extent, that such untrue statement or alleged untrue statement or omission or alleged omission was made in the Registration Statement, the Basic Prospectus, the Prospectus Supplement or the Prospectus, or any such amendment or supplement thereto, or any Issuer Free Writing Prospectus, in reliance upon and in strict conformity with written information furnished to the Company by the Agent expressly for use therein; and will reimburse the Company for any legal or other expenses reasonably incurred by the Company in connection with investigating or defending any such action or claim as such expenses are incurred.

(c) Promptly after receipt by an indemnified party under subsection (a) or (b) above of notice of the commencement of any action, such indemnified party shall, if a claim in respect thereof is to be made against the indemnifying party under such subsection, notify the indemnifying party in writing of the commencement thereof; but the omission so to notify the indemnifying party shall not relieve it from any liability which it may have to any indemnified party otherwise than under such subsection except and then only to the extent such indemnifying party is materially prejudiced thereby. In case any such action shall be brought against any indemnified party and it shall notify the indemnifying party of the commencement thereof, the indemnifying party shall be entitled to participate therein and, to the extent that it shall wish, jointly with any other indemnifying party similarly notified, to assume the defense thereof, with counsel reasonably satisfactory to such indemnified party (who shall not, except with the consent of the indemnified party, be counsel to the indemnifying party), and, after notice from the indemnifying party to such indemnified party of its election so to assume the defense thereof, the indemnifying party shall not be liable to such indemnified party under this Section 7 for any legal expenses of other counsel or any other expenses, in each case subsequently incurred by such indemnified party, in connection with the defense thereof other than reasonable costs of investigation. No indemnifying party shall, without the written consent of the indemnified party, effect the settlement or compromise of, or consent to the entry of any judgment with respect to, any pending or threatened action or claim in respect of which indemnification or contribution may be sought hereunder (whether or not the indemnified party is an actual or potential party to such action or claim) unless such settlement, compromise or judgment (i) includes an unconditional release of the indemnified party from all liability arising out of such action or claim and (ii) does not include a statement as to an admission of fault, culpability or a failure to act, by or on behalf of any indemnified party.

(d) If the indemnification provided for in this Section 7 is unavailable to hold harmless an indemnified party under subsection (a) or (b) above in respect of any losses, claims, damages or liabilities (or actions in respect thereof) referred to therein, then each indemnifying party shall contribute to the amount paid or payable by such indemnified party as a result of such losses, claims, damages or liabilities (or actions in respect thereof) in such proportion as is appropriate to reflect the relative benefits received by the Company on the one hand and the Agent on the other from the offering of the Shares to which such loss, claim, damage or liability (or action in respect thereof) relates. If, however, the allocation provided by the immediately preceding sentence is not permitted by applicable law, then each indemnifying party shall contribute to such amount paid or payable by such indemnified party in such proportion as is appropriate to reflect not only such relative benefits but also the relative fault of the Company on the one hand and the Agent on the other in connection with the statements or omissions which resulted in such losses, claims, damages or liabilities (or actions in respect thereof), as well as any other relevant equitable considerations. The relative benefits received by the Company on the one hand and the Agent on the other shall be deemed to be in the same proportion as the total net proceeds from the offering (before deducting expenses) received by the Company bear to the total commissions received by the Agent. The relative fault shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Company on the one hand or the Agent on the other and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission. The Company and the Agent agree that it would not be just and equitable if contribution pursuant to this subsection (d) were determined by pro rata allocation or by any other method of allocation which does not take account of the equitable considerations referred to above in this subsection (d). The amount paid or payable by an indemnified party as a result of the losses, claims, damages or liabilities (or actions in respect thereof) referred to above in this subsection (d) shall be deemed to include any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending any such action or claim. Notwithstanding the provisions of this subsection (d), the Agent shall not be required to contribute any amount in excess of the amount by which the total compensation received by the Agent with respect to sales of the Shares sold by it to the public exceeds the amount of any damages which the Agent has otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the 1933 Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation.

(e) The obligations of the Company under this Section 7 shall be in addition to any liability which the Company may otherwise have and shall extend, upon the same terms and conditions, to the directors, officers, employees, attorneys and agents of the Agent and to each person, if any, who controls the Agent within the meaning of the 1933 Act and each broker dealer affiliate of the Agent; and the obligations of the Agent under this Section 7 shall be in addition to any liability which the Agent may otherwise have and shall extend, upon the same terms and conditions, to each director, officer, employee, attorney and agent of the Company and to each person, if any, who controls the Company within the meaning of the 1933 Act.

Section 8. Representations, Warranties and Agreements to Survive Delivery. The respective indemnities, agreements, representations, warranties and other statements of the Company and the Agent, as set forth in this Agreement or made by or on behalf of them, respectively, pursuant to this Agreement, shall remain in full force and effect, regardless of any investigation (or any statement as to the results thereof) made by or on behalf of the Agent or any controlling person of the Agent, or the Company, or any officer or director or controlling person of the Company, and shall survive delivery of and payment for the Shares.

Section 9. No Advisory or Fiduciary Relationship. The Company acknowledges and agrees that (i) the Agent is acting solely in the capacity of an arm's length contractual counterparty to the Company with respect to the offering of Shares contemplated hereby (including in connection with determining the terms of such offering) and (ii) the Agent has not assumed an advisory or fiduciary responsibility in favor of the Company with respect to the offering contemplated hereby or the process leading thereto (irrespective of whether the Agent has advised or is currently advising the Company on other matters) or any other obligation to the Company except the obligations expressly set forth in this Agreement and (iii) the Company has consulted its own legal and financial advisors to the extent it deemed appropriate. The Company agrees that it will not claim that the Agent has rendered advisory services of any nature or respect, or owe a fiduciary or similar duty to the Company, in connection with such transaction or the process leading thereto.

Section 10. Termination.

(a) The Company shall have the right, by giving written notice as hereinafter specified, to terminate this Agreement in its sole discretion at any time. Any such termination shall be without liability of any party to any other party, except that (i) with respect to any pending sale through the Agent for the Company, the obligations of the Company, including in respect of compensation of the Agent, shall remain in full force and effect notwithstanding such termination; and (ii) the provisions of Section 1, Section 5, Section 7, Section 8, Section 14 and Section 15 of this Agreement shall remain in full force and effect notwithstanding such termination.

(b) The Agent shall have the right, by giving written notice as hereinafter specified, to terminate this Agreement in its sole discretion at any time. Any such termination shall be without liability of any party to any other party, except that (i) with respect to any pending sale through the Agent for the Company, the obligations of the Agent shall remain in full force and effect through completion of the sale notwithstanding such termination; and (ii) except that the provisions of Section 1, Section 5, Section 7, Section 8, Section 14 and Section 15 of this Agreement shall remain in full force and effect notwithstanding such termination.

(c) This Agreement shall remain in full force and effect until and unless terminated pursuant to Section 10(a) or (b) above or otherwise by mutual agreement of the parties; provided that any such termination by mutual agreement or pursuant to this clause (c) shall in all cases be deemed to provide that Section 1, Section 5, Section 7, Section 8, Section 14 and Section 15 of this Agreement shall remain in full force and effect.

(d) Any termination of this Agreement shall be effective on the date specified in such notice of termination; provided that such termination shall not be effective until the close of business on the date of receipt of such notice by the Agent or the Company, as the case may be. If such termination shall occur prior to the Settlement Date for any sale of Shares, such sale shall settle in accordance with the provisions of Section 2(g) hereof.

(e) In the case of any purchase by the Agent pursuant to a Terms Agreement, the Agent may terminate this Agreement, at any time at or prior to the Settlement Date of such purchase (i) if there has been, since the time of execution of this Agreement or since the respective dates as of which information is given in the General Disclosure Package or the Prospectus, any Material Adverse Effect, or (ii) if there has occurred any material adverse change in the financial markets in the United States or the international financial markets, any outbreak of hostilities or escalation thereof or other calamity or crisis or any change or development involving a prospective change in national or international political, financial or economic conditions, in each case the effect of which is such as to make it, in the judgment of the Agent, impracticable or inadvisable to market the Shares or to enforce contracts for the sale of Shares, or (iii) if trading in any securities of the Company has been suspended or materially limited by the Commission or the Nasdaq, or if trading generally on the NYSE, the NYSE American or Nasdaq has been suspended or materially limited, or minimum or maximum prices for trading have been fixed, or maximum ranges for prices have been required, by any of said exchanges or by such system or by order of the Commission, FINRA or any other governmental authority, or (iv) a material disruption has occurred in commercial banking or securities settlement or clearance services in the United States, or (v) if a banking moratorium has been declared by either Federal or New York authorities.

Section 11. Notices. All statements, requests, notices and agreements hereunder shall be in writing, and if to Stifel Nicolaus shall be delivered or sent by mail, telex or facsimile transmission to:

Stifel, Nicolaus & Company, Incorporated
One South Street, 15th Floor
Baltimore, Maryland 21202
Fax No. (443) 224-1254
Attention: Syndicate Department

with a copy to:

Dechert LLP
1095 Avenue of Americas
New York, New York 10036
Fax No. (212) 698-3599
Attention: David S. Rosenthal, Esq.
Gregory A. Scherneck, Esq.

and if to the Company to:

Inovio Pharmaceuticals, Inc.
660 W. Germantown Pike, Suite 100
Plymouth Meeting, Pennsylvania 19462
Fax: (267) 440-4242
Attention: J. Joseph Kim, Chief Executive Officer

with a copy to:

Cooley LLP
55 Hudson Yards
New York, NY 10001
Fax: (212) 479-6275
Attention: Jeffrey P. Libson and Daniel I. Goldberg

Any such statements, requests, notices or agreements shall take effect upon receipt thereof.

Section 12. Parties. This Agreement shall be binding upon, and inure solely to the benefit of, the Agent and the Company and, to the extent provided in Sections 7 and 8 hereof, the officers, directors, employees, attorneys and agents of the Company and the Agent and each person who controls the Company or the Agent, and their respective heirs, executors, administrators, successors and assigns, and no other person shall acquire or have any right under or by virtue of this Agreement. No purchaser of Shares through the Agent shall be deemed a successor or assign by reason merely of such purchase.

Section 13. Time of the Essence. Time shall be of the essence of this Agreement. As used herein, the term “business day” shall mean any day when the Commission’s office in Washington, D.C. is open for business.

Section 14. Waiver of Jury Trial. The Company and the Agent hereby irrevocably waive, to the fullest extent permitted by applicable law, any and all right to jury trial by jury in any legal proceeding arising out of or relating to this Agreement or the transactions contemplated hereby.

Section 15. Governing Law. THIS AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK WITHOUT REFERENCE TO ITS PRINCIPLES OF CONFLICTS OF LAW.

Section 16. Counterparts. This Agreement and any Terms Agreement may be executed by any one or more of the parties hereto and thereto in any number of counterparts, each of which shall be deemed to be an original, but all such respective counterparts shall together constitute one and the same instrument. This Agreement and any Terms Agreement may be delivered by any party by facsimile or other electronic transmission.

Section 17. Severability. The invalidity or unenforceability of any Section, paragraph or provision of this Agreement shall not affect the validity or enforceability of any other Section, paragraph or provision hereof. If any Section, paragraph or provision of this Agreement is for any reason determined to be invalid or unenforceable, there shall be deemed to be made such minor changes (and only such minor changes) as are necessary to make it valid and enforceable.

[Remainder of page intentionally left blank.]

If the foregoing is in accordance with your understanding of our agreement, please sign and return to the Company a counterpart hereof, whereupon this instrument, along with all counterparts, will become a binding agreement between the Agent and the Company in accordance with its terms.

Very truly yours,

INOVIO PHARMACEUTICALS, INC.

By: /s/ Peter Kies

Name: Peter Kies

Title: Chief Financial Officer

Accepted as of the date hereof:

STIFEL, NICOLAUS & COMPANY, INCORPORATED

By: /s/ Daniel J. Covatta

Name: Daniel J. Covatta

Title: Managing Director

Schedule 1

Subsidiaries

Genetronics, Inc.

VGX Pharmaceuticals, LLC

VGX Animal Health, Inc.

GENEOS Therapeutics, Inc.

Annex 1

INOVIO PHARMACEUTICALS, INC.

Common Stock
(\$0.001 par value per share)

TERMS AGREEMENT

STIFEL, NICOLAUS & COMPANY, INCORPORATED
One South Street, 15th Floor
Baltimore, MD 21202
Attn: Syndicate Department

Ladies and Gentlemen:

Inovio Pharmaceuticals, Inc., a Delaware corporation (the "Company"), proposes, subject to the terms and conditions stated herein and in the At-the-Market Equity Offering Sales Agreement, dated April 3, 2020 (the "Sales Agreement"), between the Company and Stifel, Nicolaus & Company, Incorporated (the "Agent"), to issue and sell to the Agent the securities specified in the Schedule hereto (the "Purchased Securities") [, and solely for the purpose of covering over-allotments, to grant to the Agent the option to purchase the additional securities specified in the Schedule hereto (the "Additional Securities")]*.

[The Agent shall have the right to purchase from the Company all or a portion of the Additional Securities as may be necessary to cover over-allotments made in connection with the offering of the Purchased Securities, at the same purchase price per share to be paid by the Agent to the Company for the Purchased Securities. This option may be exercised by the Agent at any time (but not more than once) on or before the thirtieth day following the date hereof, by written notice to the Company. Such notice shall set forth the aggregate number of shares of Additional Securities as to which the option is being exercised, and the date and time when the Additional Securities are to be delivered (such date and time being herein referred to as the "Option Closing Date"); provided, however, that the Option Closing Date shall not be earlier than the Time of Delivery (as set forth in the Schedule hereto) nor earlier than the second business day after the date on which the option shall have been exercised nor later than the fifth business day after the date on which the option shall have been exercised. Payment of the purchase price for the Additional Securities shall be made at the Option Closing Date in the same manner and at the same office as the payment for the Purchased Securities.]*

Each of the provisions of the Sales Agreement not specifically related to the solicitation by the Agent, as agent of the Company, of offers to purchase securities is incorporated herein by reference in its entirety, and shall be deemed to be part of this Terms Agreement to the same extent as if such provisions had been set forth in full herein. Each of the representations and warranties set forth therein shall be deemed to have been made at and as of the date of this Terms Agreement [and] [,] the Applicable Time [and any Option Closing Date]*, except that each representation and warranty in Section 1 of the Sales Agreement which makes reference to the Prospectus (as therein defined) shall be deemed to be a representation and warranty as of the date of the Sales Agreement in relation to the Prospectus, and also a representation and warranty as of the date of this Terms Agreement [and] [,] the Settlement Date [and any Option Closing Date]* in relation to the Prospectus as amended and supplemented to relate to the Purchased Securities.

An amendment to the Registration Statement (as defined in the Sales Agreement), or a supplement to the Prospectus, as the case may be, relating to the Purchased Securities [and the Additional Securities]*, in the form heretofore delivered to the Agent is now proposed to be filed with the Securities and Exchange Commission.

Subject to the terms and conditions set forth herein and in the Sales Agreement which are incorporated herein by reference, the Company agrees to issue and sell to the Agent and the latter agrees to purchase from the Company the number of shares of the Purchased Securities at the time and place and at the purchase price set forth in the Schedule hereto.

If the foregoing is in accordance with your understanding of our agreement, please sign and return to the Company a counterpart hereof, whereupon this instrument, along with all counterparts, will become a binding agreement between the Agent and the Company in accordance with its terms.

Very truly yours,

INOVIO PHARMACEUTICALS, INC.

By:
Name:
Title:

Accepted as of the date hereof:

STIFEL, NICOLAUS & COMPANY, INCORPORATED

By: _____

Name:

Title:

* Include only if the Agent has an over-allotment option.



Brian F. Leaf
 (703) 456-8053
 bleaf@cooley.com

April 3, 2020

Inovio Pharmaceuticals, Inc.
 660 W. Germantown Pike, Suite 110
 Plymouth Meeting, Pennsylvania 19462

We have represented Inovio Pharmaceuticals, Inc., a Delaware corporation (the “**Company**”), in connection with the offering by the Company of up to \$150,000,000 of the Company’s common stock, par value \$0.001 per share, (the “**Shares**”), pursuant to a Registration Statement on Form S-3 (File No. 333-237172) (the “**Registration Statement**”), filed with the Securities and Exchange Commission (the “**Commission**”) under the Securities Act of 1933, as amended (the “**Act**”), the prospectus included within the Registration Statement (the “**Base Prospectus**”), and the prospectus supplement dated April 3, 2020, filed with the Commission pursuant to Rule 424(b) of the Rules and Regulations of the Act (together with the Base Prospectus, the “**Prospectus**”). The Shares are to be sold by the Company in accordance with the At-The-Market Equity Offering Sales Agreement dated April 3, 2020 (the “**Sales Agreement**”) between the Company and Stifel, Nicolaus & Company, Incorporated, as described in the Prospectus.

In connection with this opinion, we have examined and relied upon (a) the Registration Statement and the Prospectus, (b) the Company’s Certificate of Incorporation, as amended, and Amended and Restated Bylaws, each as currently in effect, (c) the Sales Agreement and (d) the originals or copies certified to our satisfaction of such records, documents, 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 (except that such assumption is not made with respect to the due execution and delivery of documents by the Company). As to certain factual matters, we have relied upon a certificate of officers of the Company and have not sought to independently verify such matters.

We have assumed (i) that the specific sale of Shares will be duly authorized by the Board of Directors of the Company, a duly authorized committee thereof or a person or body pursuant to an authorization granted in accordance with Section 152 of the General Corporation Law of the State of Delaware (the “**DGCL**”) and (ii) that no more than 75,000,000 Shares will be sold. We express no opinion to the extent that future issuances of securities of the Company and/or anti-dilution adjustments to outstanding securities of the Company cause the number of shares of Common Stock outstanding or issuable upon conversion or exercise of outstanding securities of the Company to exceed the number of Shares then issuable under the Sales Agreement.

Our opinion is expressed only with respect to the DGCL. We express no opinion to the extent that any other laws are applicable to the subject matter hereof and express no opinion and provide no assurance as to compliance with any federal or state securities law, rule or regulation.

On the basis of the foregoing and in reliance thereon, we are of the opinion that the Shares, when issued and paid for in accordance with the Sales Agreement and as provided in the Prospectus, will be validly issued, fully paid and nonassessable.

We consent to the reference to our firm under the caption “Legal Matters” in the Prospectus and to the filing of this opinion as an exhibit to the Company’s Current Report on Form 8-K to be filed with the Commission for incorporation by reference into the Registration Statement.

Sincerely,

COOLEY LLP

By: /s/ Brian F. Leaf
 Brian F. Leaf

ONE FREEDOM SQUARE, RESTON TOWN CENTER, 11951 FREEDOM DRIVE, RESTON, VA 20190-5640 T: (703) 456-8000 F: (703) 456-8100 WWW.COOLEY.COM