

**CALCULATION OF REGISTRATION FEE**

<b>Title of Each Class of Securities to be Registered</b>	<b>Amount to be Registered</b>	<b>Proposed Maximum Offering Price Per Share(1)</b>	<b>Proposed Maximum Aggregate Offering Price(1)</b>	<b>Amount of Registration Fee(2)</b>
Common Stock, \$0.0001 par value per share	16,320,476 shares	\$39.39	\$642,863,550	\$70,137

- (1) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(c) under the Securities Act of 1933 (the "Securities Act") based on the average of the high and low prices of the Registrant's common stock on The New York Stock Exchange on November 2, 2020.
- (2) The registration fee is calculated and being paid pursuant to Rule 456(b) and Rule 457(r) under the Securities Act and relates to the Registration Statement on Form S-3 (File No. 333-230053) filed by the Registrant on March 4, 2019.

**PROSPECTUS SUPPLEMENT**  
(To Prospectus dated March 4, 2019)

**16,320,476 Shares**



**INVITAE**

**Common Stock**

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The selling stockholders identified in this prospectus supplement may sell up to an aggregate of 16,320,476 shares of our common stock. We will not receive any of the proceeds from the sale of the shares of our common stock by the selling stockholders.

Our registration of the shares of our common stock covered by this prospectus supplement does not mean that the selling stockholders will offer or sell any of the shares of our common stock. The selling stockholders identified in this prospectus supplement may sell the shares of our common stock covered by this prospectus supplement in a number of different ways and at varying prices. For additional information on the possible methods of sale that may be used by the selling stockholders, you should refer to the information under the heading “Plan of Distribution” on page S-8 of this prospectus supplement.

Our common stock is listed on The New York Stock Exchange under the symbol “NVTA.” On November 4, 2020, the last reported sale price of our common stock on The New York Stock Exchange was \$43.21 per share.

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**Investing in our common stock involves risks. See the section entitled “[Risk Factors](#)” on page S-3 of this prospectus supplement before making an investment decision.**

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

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The date of this prospectus supplement is November 5, 2020

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## ABOUT THIS PROSPECTUS SUPPLEMENT

This document contains two parts. The first part is this prospectus supplement, which describes the specific terms of this offering and also supplements and updates information contained in the accompanying prospectus and the documents incorporated by reference into this prospectus supplement and the accompanying prospectus. The second part is the accompanying prospectus, which provides more general information, some of which may not apply to this offering. If the information contained in this prospectus supplement differs or varies from the information contained in the accompanying prospectus, you should rely on the information set forth in the document that was filed with the Securities and Exchange Commission, or the SEC, later.

You should rely only on the information contained or incorporated by reference in this prospectus supplement and the accompanying prospectus. Neither we nor the selling stockholders have authorized anyone else to provide you with information that is in addition to or different from that contained or incorporated by reference in this prospectus supplement and the accompanying prospectus. This prospectus supplement and the accompanying prospectus do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the securities described in this prospectus supplement or an offer to sell or the solicitation of an offer to buy any shares of our common stock in any circumstances in which such offer or solicitation is unlawful. The information contained in this prospectus supplement and the accompanying prospectus is accurate only as of the date of this prospectus supplement or the date of the accompanying prospectus, and the information in the documents incorporated by reference in this prospectus supplement and the accompanying prospectus is accurate only as of the date of those respective documents, regardless of the time of delivery of this prospectus supplement and the accompanying prospectus or of any sale of our common stock. Our business, financial condition, results of operations and prospects may have changed since those dates. It is important for you to read and consider all information contained or incorporated by reference in this prospectus supplement and the accompanying prospectus in making your investment decision. You should read both this prospectus supplement and the accompanying prospectus, as well as the documents incorporated by reference into this prospectus supplement and the accompanying prospectus and the additional information described under “Where You Can Find More Information” in this prospectus supplement and in the accompanying prospectus, before investing in our common stock.

Unless the context otherwise requires, references in this prospectus supplement to “Invitae,” the “company,” “we,” “us” and “our” refer to Invitae Corporation and its consolidated subsidiaries.

Invitae and the Invitae logo are our trademarks. This prospectus supplement and the documents incorporated by reference into this prospectus supplement may also contain trademarks and trade names that are the property of their respective owners.

## PROSPECTUS SUPPLEMENT SUMMARY

*This summary highlights selected information about us and this offering. Because it is a summary, it does not contain all of the information that you should consider before investing. Before you decide to invest in our common stock, you should read carefully and in their entirety this entire prospectus supplement and the accompanying prospectus, including the section entitled “Risk Factors,” and the documents we have incorporated by reference into this prospectus supplement and the accompanying prospectus, along with our financial statements and accompanying notes incorporated by reference in this prospectus supplement and the accompanying prospectus.*

### Our Company

Invitae is a medical genetics company and our mission is to bring comprehensive genetic information into mainstream medical practice to improve the quality of healthcare for billions of people.

### Corporate Information

We were incorporated in Delaware on January 13, 2010 as Locus Development, Inc., and changed our name to Invitae Corporation in 2012. Our principal executive offices are located at 1400 16th Street, San Francisco, California 94103 and our telephone number is (415) 374-7782. Our website address is [www.invitae.com](http://www.invitae.com). We do not incorporate the information on, or accessible through, our website into this prospectus supplement, and you should not consider any information on, or accessible through, our website as part of this prospectus supplement.

### The Offering

Common stock registered for resale by the selling stockholders	16,320,476 shares
Use of proceeds	We will not receive any of the proceeds from the sale of the shares of our common stock by the selling stockholders.
New York Stock Exchange symbol	NVTA

Throughout this prospectus supplement, when we refer to the shares of our common stock being registered on behalf of the selling stockholders, we are referring to the shares of common stock purchased from us by the selling stockholders on October 2, 2020 pursuant to the securities purchase agreement with the selling stockholders dated June 21, 2020, or the Securities Purchase Agreement. We agreed to file this prospectus supplement pursuant to a Registration Rights Agreement with the selling stockholders dated October 2, 2020, or the Registration Rights Agreement. Additional information with respect to the selling stockholders is contained in this prospectus supplement under the heading “Selling Stockholders.”

When we refer to the selling stockholders in this prospectus supplement, we are referring to the individuals and entities named in this prospectus supplement as the selling stockholders and, as applicable, any donees, pledgees, transferees or other successors-in-interest selling shares of common stock or interests in shares of common stock received after the date of this prospectus supplement from the selling stockholders as a gift, pledge, partnership distribution or other non-sale related transfer.

## RISK FACTORS

*Investing in our common stock involves a high degree of risk. You should carefully consider the risk factors discussed under the caption “Risk Factors” in our most recent Annual Report on Form 10-K, Quarterly Reports on Form 10-Q or Current Reports on Form 8-K, as well as any document incorporated by reference in this prospectus supplement and accompanying prospectus before deciding to invest in our common stock. These risks and uncertainties are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also impair our business operations. If any of these risks actually occur, our business, financial condition and results of operations could be materially and adversely affected. For more information, see “Where You Can Find More Information.”*

## FORWARD-LOOKING STATEMENTS

This prospectus supplement and the documents we have filed with the SEC that are incorporated herein by reference contain forward-looking statements that involve risks and uncertainties. These statements relate to future periods, future events or our future operating or financial plan or performance. These statements can often be identified by the use of forward-looking terminology such as “expects,” “believes,” “intends,” “anticipates,” “estimates,” “plans,” “may,” or “will,” or the negative of these terms, and other similar expressions. These forward-looking statements reflect our current views with respect to future events, are based on assumptions and are subject to risks and uncertainties. These risks and uncertainties could cause actual results to differ materially from those projected. We discuss many of these risks and uncertainties in greater detail in the documents that are incorporated by reference into this prospectus supplement, which address additional factors that could cause results or events to differ from those set forth in the forward-looking statements. Given these risks and uncertainties, you should not place undue reliance on these forward-looking statements. Except as required by federal securities laws, we undertake no obligation to update any forward-looking statements for any reason, even if new information becomes available or other events occur in the future.

## USE OF PROCEEDS

All of the shares of common stock being offered hereby are being sold by the selling stockholders identified in this prospectus supplement. We will not receive any proceeds from the sale of common stock by the selling stockholders.

## SELLING STOCKHOLDERS

On October 2, 2020, the selling stockholders acquired the shares of our common stock from us in a private offering pursuant to an exemption from registration under the Securities Act of 1933, or the Securities Act. Pursuant to the Securities Purchase Agreement and the Registration Rights Agreement, we agreed to file a registration statement on Form S-3 with the SEC for the purposes of registering for resale the shares of our common stock issued to the selling stockholders pursuant to the Securities Purchase Agreement.

The following table sets forth, based on written representations from the selling stockholders, certain information as of June 21, 2020, the date of the Securities Purchase Agreement regarding the beneficial ownership of our common stock by the selling stockholders and the shares being offered by the selling stockholders. The applicable percentage ownership is based on 131,785,131 shares of our common stock outstanding as of October 30, 2020. Information with respect to shares owned beneficially after the offering assumes the sale of all of the shares offered and no other purchases or sales of our common stock. The selling stockholders may offer and sell some, all or none of their shares. This table does not include certain shares of our common stock held by affiliates of the selling stockholders and does not include information regarding beneficial ownership of our common stock held by the selling stockholders other than the common stock acquired pursuant to the Securities Purchase Agreement.

We have determined beneficial ownership in accordance with the rules of the SEC. Except as indicated by the footnotes below, we believe, based on the information furnished to us, that the selling stockholders have sole voting and investment power with respect to all shares of common stock that they beneficially own, subject to applicable community property laws. To our knowledge, none of the selling stockholders has held any position or office or had any other material relationship with us or our affiliates during the three years prior to October 2, 2020 except for Randal Scott, who served as our executive chairman of the board until his retirement in September 2019. In addition, based on the information provided to us by the selling stockholders, no selling stockholder is a broker-dealer or an affiliate of a broker-dealer.

Name of Selling Stockholder	Shares Beneficially Owned Prior to Offering		Number of Shares Being Offered <sup>(1)</sup>	Shares Beneficially Owned After Offering	
	Number	Percent		Number	Percent
667, L.P.	288,160	*	288,160	—	—
Baker Brothers Life Sciences, L.P.	3,510,060	2.7%	3,510,060	—	—
Casdin Partners Master Fund, L.P.	3,264,095	2.5%	3,264,095	—	—
Deerfield Partners, L.P. <sup>(2)</sup>	890,208	*	890,208	—	—
Driehaus Event Driven Fund (A Series of Driehaus Mutual Funds)	148,368	*	148,368	—	—
Driehaus Life Sciences Master Fund, L.P.	148,368	*	148,368	—	—
Farallon Capital (AM) Investors, L.P.	10,386	*	10,386	—	—
Farallon Capital F5 Master I, L.P.	28,190	*	28,190	—	—
Farallon Capital Institutional Partners II, L.P.	38,576	*	38,576	—	—
Farallon Capital Institutional Partners III, L.P.	16,320	*	16,320	—	—
Farallon Capital Institutional Partners, L.P.	183,976	*	183,976	—	—
Farallon Capital Offshore Investors II, L.P.	216,617	*	216,617	—	—
Farallon Capital Partners, L.P.	75,668	*	75,668	—	—
Four Crossings Institutional Partners V, L.P.	23,739	*	23,739	—	—
Four Pines Master Fund LP	8,902	*	8,902	—	—
Paul B. Manning	296,736	*	296,736	—	—
Perceptive Credit Holdings III, LP	296,736	*	296,736	—	—
Perceptive Life Sciences Master Fund, Ltd.	2,967,359	2.3%	2,967,359	—	—
Randal Scott	59,347	*	59,347	—	—
Redmile Biopharma Investments II, L.P.	624,629	*	624,629	—	—

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Name of Selling Stockholder	Shares Beneficially Owned Prior to Offering		Number of Shares Being Offered <sup>(1)</sup>	Shares Beneficially Owned After Offering	
	Number	Percent		Number	Percent
Redmile Capital Fund, LP	512,200	*	512,200	—	—
Redmile Capital Offshore Fund (ERISA), Ltd.	66,700	*	66,700	—	—
Redmile Capital Offshore II Master Fund, Ltd.	260,400	*	260,400	—	—
Redmile Capital Offshore Master Fund, Ltd.	1,244,487	*	1,244,487	—	—
Redmile Private Investments II, L.P.	265,579	*	265,579	—	—
Redmile Strategic Master Fund, LP	290,100	*	290,100	—	—
Rock Springs Capital Master Fund LP	287,834	*	287,834	—	—
Soleus Capital Master Fund, L.P. <sup>(3)</sup>	296,736	*	296,736	—	—
<b>Total Shares</b>	<b>16,320,476</b>		<b>16,320,476</b>		

\* Less than 1%.

- (1) The amounts set forth in this column are the number of shares of common stock that may be offered by each selling stockholder using this prospectus supplement. These amounts do not represent any other shares of our common stock that the selling stockholder may own beneficially or otherwise.
- (2) Deerfield Mgmt, L.P. is the general partner of Deerfield Partners, L.P. Deerfield Management Company, L.P. is the investment manager of Deerfield Partners, L.P. Mr. James E. Flynn is the sole member of the general partner of each of Deerfield Mgmt, L.P. and Deerfield Management Company, L.P. Each of Deerfield Mgmt, L.P., Deerfield Management Company, L.P. and Mr. James E. Flynn may be deemed to beneficially own the shares of common stock of the company beneficially owned by Deerfield Partners, L.P.
- (3) The shares are owned directly by Soleus Capital Master Fund, L.P. (“Master Fund”). Soleus Capital, LLC is the sole general partner of Master Fund and thus holds voting and dispositive power over the shares held by Master Fund. Soleus Capital Group, LLC is the sole managing member of Soleus Capital, LLC. Mr. Guy Levy is the sole managing member of Soleus Capital Group, LLC. Each of Soleus Capital Group, LLC, Soleus Capital, LLC and Mr. Guy Levy disclaims beneficial ownership of these shares held by Master Fund and the inclusion of those parties in this prospectus supplement shall not be deemed an admission that they are the beneficial owners of such shares for any purpose, except to the extent of their respective pecuniary interests therein. The address of Master Fund is 104 Field Point Road, Greenwich, CT 06830.

## PLAN OF DISTRIBUTION

We are registering the shares of common stock issued to the selling stockholders to permit the resale of these shares of common stock by the holders of the shares of common stock from time to time after the date of this prospectus supplement. We will not receive any of the proceeds from the sale by the selling stockholders of the shares of common stock. We will bear all fees and expenses incident to our obligation to register the shares of common stock. There can be no assurance that any selling stockholder will sell any or all of the shares of common stock registered pursuant to the registration statement of which this prospectus supplement forms a part.

The selling stockholders, which as used herein includes donees, pledgees, transferees or other successors-in-interest selling shares of common stock received after the date of this prospectus supplement from a selling stockholder as a gift, pledge, partnership distribution or other transfer, may, from time to time, sell any or all of their shares of common stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions directly or through one or more underwriters, broker dealers or agents. If the shares of common stock are sold through underwriters or broker-dealers, the selling stockholders will be responsible for underwriting discounts or commissions or agent's commissions. Dispositions may be at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices.

The selling stockholders may use any one or more of the following methods when disposing of shares or interests therein:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent, but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- short sales effected after the date the registration statement of which this prospectus supplement is a part is declared effective by the SEC;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- broker-dealers may agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share;
- a combination of any such methods of sale; and
- any other method permitted by applicable law.

The selling stockholders may, from time to time, pledge or grant a security interest in some or all of the shares of common stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the shares of common stock, from time to time, under this prospectus supplement, or under an amendment to this prospectus supplement amending the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this prospectus supplement. The selling stockholders also may transfer the shares of common stock in other circumstances, in which case the transferees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus supplement.

In connection with the sale of our common stock or interests therein, the selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the common stock in the course of hedging the positions they assume. The selling stockholders may also sell

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shares of our common stock short and may deliver shares of common stock covered by this prospectus supplement to close out short positions and to return borrowed shares in connection with such short sales. The selling stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus supplement, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus supplement (as supplemented or amended to reflect such transaction). Notwithstanding the foregoing, the selling stockholders have been advised that they may not use shares registered on the registration statement to cover short sales of our common stock made prior to the date the registration statement, of which this prospectus supplement forms a part, has been filed with the SEC.

The aggregate proceeds to the selling stockholders from the sale of the common stock offered by them will be the purchase price of the common stock less discounts or commissions, if any. Each of the selling stockholders reserves the right to accept and, together with their agents from time to time, to reject, in whole or in part, any proposed purchase of common stock to be made directly or through agents.

The selling stockholders also may resell all or a portion of the shares in open market transactions in reliance upon Rule 144 under the Securities Act, provided that they meet the criteria and conform to the requirements of that rule.

The selling stockholders and any underwriters, broker-dealers or agents that participate in the sale of the common stock or interests therein may be “underwriters” within the meaning of Section 2(11) of the Securities Act. Any discounts, commissions, concessions or profit they earn on any resale of the shares may be underwriting discounts and commissions under the Securities Act. Selling stockholders who are “underwriters” within the meaning of Section 2(11) of the Securities Act will be subject to the prospectus supplement delivery requirements of the Securities Act, including Rule 172 thereunder, and may be subject to certain statutory liabilities under the Securities Act and the Securities Exchange Act of 1934, or the Exchange Act.

To the extent required, the shares of our common stock to be sold, the names of the selling stockholders, the respective purchase prices and public offering prices, the names of any agents, dealer or underwriter, and any applicable commissions or discounts with respect to a particular offer will be set forth in an accompanying prospectus supplement.

In order to comply with the securities laws of some states, if applicable, the common stock may be sold in these jurisdictions only through registered or licensed brokers or dealers.

Each selling stockholder and any other person participating in such distribution will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including, without limitation, to the extent applicable, Regulation M of the Exchange Act, which may limit the timing of purchases and sales of any of the shares of common stock by the selling stockholder and any other participating person. To the extent applicable, Regulation M may also restrict the ability of any person engaged in the distribution of the shares of common stock to engage in market-making activities with respect to the shares of Common Stock. All of the foregoing may affect the marketability of the shares of common stock and the ability of any person or entity to engage in market-making activities with respect to the shares of Common Stock.

To the extent applicable, we will make copies of this prospectus supplement (as it may be supplemented or amended from time to time) available to the selling stockholders for the purpose of satisfying the prospectus supplement delivery requirements of the Securities Act. The selling stockholders may indemnify any broker-dealer that participates in transactions involving the sale of the shares against certain liabilities, including liabilities arising under the Securities Act.

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Broker dealers engaged by the selling stockholders may arrange for other broker dealers to participate in sales. If the selling stockholders effect such transactions by selling shares of common stock to or through underwriters, broker dealers or agents, such underwriters, broker-dealers or agents may receive commissions in the form of discounts, concessions or commissions from the selling stockholders or commissions from purchasers of the shares of common stock for whom they may act as agent or to whom they may sell as principal.

We have agreed to indemnify the selling stockholders against liabilities, including liabilities under the Securities Act and state securities laws, relating to the registration of the shares offered by this prospectus supplement.

We have agreed with the selling stockholders to keep the registration statement of which this prospectus supplement constitutes a part effective until the earlier of (1) such time as all of the shares covered by this prospectus supplement held by non-affiliates have been sold pursuant to and in accordance with such registration statement or (2) the date on which all of the shares may be sold by non-affiliates without restriction pursuant to Rule 144 of the Securities Act, and without the requirement to be in compliance with Rule 144(c)(1) of the Securities Act.

## LEGAL MATTERS

The validity of the shares of common stock offered by this prospectus supplement will be passed upon for us by Pillsbury Winthrop Shaw Pittman LLP.

## EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2019, and the effectiveness of our internal control over financial reporting as of December 31, 2019, as set forth in their reports, which are incorporated by reference in this prospectus supplement and elsewhere in this registration statement. Our financial statements are incorporated by reference in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

## WHERE YOU CAN FIND MORE INFORMATION

We have filed a registration statement on Form S-3 with the SEC under the Securities Act. This prospectus supplement is part of the registration statement but the registration statement includes and incorporates by reference additional information and exhibits. We file annual, quarterly and current reports, proxy statements and other information with the SEC. The SEC maintains a website that contains reports, proxy and information statements and other information regarding companies, such as ours, that file documents electronically with the SEC. The address of that website is <http://www.sec.gov>. The information on the SEC's website is not part of this prospectus supplement, and any references to this website or any other website are inactive textual references only.

The SEC permits us to "incorporate by reference" the information contained in documents we file with the SEC, which means that we can disclose important information to you by referring you to those documents rather than by including them in this prospectus supplement. Information that is incorporated by reference is considered to be part of this prospectus supplement and you should read it with the same care that you read this prospectus supplement. Later information that we file with the SEC will automatically update and supersede the information that is either contained, or incorporated by reference, in this prospectus supplement, and will be considered to be a part of this prospectus supplement from the date those documents are filed. We have filed with the SEC, and incorporate by reference in this prospectus supplement:

- [our Annual Report on Form 10-K for the year ended December 31, 2019](#);
- our Quarterly Reports on Form 10-Q for the quarters ended [March 31, 2020](#), [June 30, 2020](#) and [September 30, 2020](#);
- our Current Reports on Form 8-K filed with the SEC on [March 10, 2020](#) (as amended on [March 16, 2020](#)), [April 1, 2020](#) (to the extent filed under Items 8.01 and 9.01); [April 6, 2020](#), [May 22, 2020](#), [June 12, 2020](#), [June 18, 2020](#), [June 22, 2020](#), [June 24, 2020](#), [June 26, 2020](#), [September 11, 2020](#), [October 1, 2020](#) (as amended on [October 5, 2020](#)), [October 5, 2020](#) and [November 5, 2020](#) (to the extent filed under Item 8.01); and
- [the description of our common stock contained in our Registration Statement on Form 8-A filed on February 11, 2015, including any amendment or report filed for the purpose of updating such description](#).

We also incorporate by reference all additional documents that we file with the SEC under the terms of Section 13(a), 13(c), 14 or 15(d) of the Exchange Act that are made after the filing date of the registration statement of which this prospectus supplement is a part, as well as between the date of this prospectus supplement and the termination of any offering of common stock offered by this prospectus supplement. We are

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not, however, incorporating, in each case, any documents or information that we are deemed to furnish and not file in accordance with SEC rules.

You may request a copy of any or all of the documents incorporated by reference but not delivered with this prospectus supplement, at no cost, by writing or telephoning us at the following address and number: Investor Relations, Invitae Corporation, 1400 16th Street, San Francisco, California 94103 and (415) 374-7782. We will not, however, send exhibits to those documents, unless the exhibits are specifically incorporated by reference in those documents.

We make available free of charge on our website our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports, as soon as reasonably practicable after we electronically file or furnish such materials to the SEC. You may also obtain a free copy of these reports in the Investor Relations section of our website, [www.invitae.com](http://www.invitae.com).

PROSPECTUS



*Common Stock*

We may, from time to time, offer and sell shares of our common stock in one or more offerings. This prospectus describes the general terms that may apply to sales of our common stock and the general manner in which our common stock will be offered. We will provide the specific terms of any offering in supplements to this prospectus. The prospectus supplements will also describe the manner in which the common stock will be offered and may also add to, update or change information contained in this prospectus. You should read carefully this prospectus and the accompanying prospectus supplement before you invest.

We may offer the common stock for sale directly to investors or through underwriters, dealers or agents. If any underwriters, dealers or agents are involved in the sale of any of the common stock, we will set forth their names and describe their compensation in the applicable prospectus supplement.

Our common stock is listed on The New York Stock Exchange under the symbol “NVTA.” On March 1, 2019, the last reported sale price of our common stock on The New York Stock Exchange was \$20.33 per share.

**Investing in our common stock involves risks. See the section entitled “[Risk Factors](#)” included in or incorporated by reference into any accompanying prospectus supplement and in the documents we incorporate by reference in this prospectus.**

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

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The date of this prospectus is March 4, 2019

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We have not authorized anyone to provide any information other than that contained or incorporated by reference in this prospectus, any applicable prospectus supplement or any free writing prospectus prepared by or on behalf of us or to which we have referred you. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. We are not making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information in this prospectus and any prospectus supplement, or incorporated by reference, is accurate only as of the dates of those documents. Our business, financial condition, results of operations and prospects may have changed since those dates.

## ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, or SEC, using a “shelf” registration, or continuous offering, process. Under this shelf registration process, we may, from time to time, offer and sell shares of our common stock in one or more offerings.

This prospectus provides you with a general description of the securities we may offer. Each time we sell securities, we will provide a prospectus supplement that will contain specific information about the terms of that offering. Any prospectus supplement may also add to, update or change information contained in this prospectus. Any statement that we make in this prospectus will be modified or superseded by any inconsistent statement made by us in a prospectus supplement. The registration statement we filed with the SEC includes exhibits that provide more detail of the matters discussed in this prospectus. You should read this prospectus and the related exhibits filed with the SEC and any prospectus supplement, together with additional information described under the heading “Where You Can Find More Information,” before making your investment decision.

Unless the context otherwise requires, references in this prospectus to “Invitae,” “we,” “us” and “our” refer to Invitae Corporation and its subsidiaries.

## RISK FACTORS

Investing in our common stock involves risk. The prospectus supplement relating to a particular offering will contain or incorporate by reference a discussion of risks applicable to an investment in the common stock offered. Prior to making a decision about investing in our common stock, you should carefully consider the specific factors discussed under the heading “Risk Factors” included in or incorporated by reference into the applicable prospectus supplement together with all of the other information contained in the prospectus supplement or appearing in or incorporated by reference into this prospectus, including the risk factors incorporated by reference to our most recent Annual Report on Form 10-K and any subsequent Quarterly Reports on Form 10-Q or Current Reports on Form 8-K. The occurrence of any of these risks might cause you to lose all or part of your investment in our common stock.

## INVITAE CORPORATION

Our mission is to bring comprehensive genetic information into mainstream medical practice to improve the quality of healthcare for billions of people. Our goal is to aggregate most of the world’s genetic tests into a single service with higher quality, faster turnaround time and lower pricing than many single gene tests today. By aggregating large numbers of currently available genetic tests into a single service, we believe we can achieve great economies of scale that allow us to not only provide primary single gene or multi-gene tests but also to generate and store additional genetic information on behalf of the patient for future use. We refer to the service of managing genetic information over the course of disease or the lifetime of a patient as “genome management.” In addition, as more individuals gain access to their genetic information, we believe that sharing genetic information will provide an economic opportunity for patients and us to participate in advancing the understanding and treatment of disease.

We were incorporated in the state of Delaware on January 13, 2010, as Locus Development, Inc. and changed our name to Invitae Corporation in 2012. Our principal executive offices are located at 1400 16th Street, San Francisco, California 94103 and our telephone number is (415) 374-7782. Our website address is [www.invitae.com](http://www.invitae.com). We do not incorporate the information on, or accessible through, our website into this prospectus, and you should not consider any information on, or accessible through, our website as part of this prospectus.

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Invitae, and the Invitae logo are our trademarks. This prospectus and the documents incorporated by reference into this prospectus may also contain trademarks and trade names that are the property of their respective owners. We do not intend our use or display of other companies' trade names, trademarks or service marks to imply relationships with, or endorsements or sponsorship of us by, these other companies.

## FORWARD-LOOKING STATEMENTS

When used in this prospectus, the words “expects,” “believes,” “anticipates,” “estimates,” “may,” “could,” “intends,” and similar expressions are intended to identify forward-looking statements. These statements are subject to known and unknown risks and uncertainties that could cause actual results to differ materially from those projected or otherwise implied by the forward-looking statements. These forward-looking statements speak only as of the date of this prospectus. Given these risks and uncertainties, you should not place undue reliance on these forward-looking statements. We will discuss many of these risks and uncertainties in greater detail in any prospectus supplement under the heading “Risk Factors.” Additional cautionary statements or discussions of risks and uncertainties that could affect our results or the achievement of the expectations described in forward-looking statements may also be contained in the documents we incorporate by reference into this prospectus.

These forward-looking statements speak only as of the date of this prospectus. We expressly disclaim any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements contained herein to reflect any change in our expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based. You should, however, review additional disclosures we make in our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, and Current Reports on Form 8-K filed with the SEC.

## USE OF PROCEEDS

Unless we state otherwise in the applicable prospectus supplement, we intend to use the net proceeds from the sale of the common stock offered by this prospectus for general corporate purposes. General corporate purposes may include additions to working capital, financing of capital expenditures, repayment or redemption of existing indebtedness, repurchases of stock, and future acquisitions and strategic investment opportunities. Unless we state otherwise in the applicable prospectus supplement, pending the application of net proceeds, we expect to invest the net proceeds in investment grade, interest-bearing securities.

## DESCRIPTION OF CAPITAL STOCK

This section describes the general terms and provisions of the shares of our common stock, \$0.0001 par value per share, and preferred stock, \$0.0001 par value per share. This description is only a summary. Our restated certificate of incorporation, the certificate of designation with respect to our Series A convertible preferred stock and our amended and restated bylaws have been filed as exhibits to our periodic reports filed with the SEC, which are incorporated by reference in this prospectus. You should read our restated certificate of incorporation, the certificate of designation with respect to our Series A convertible preferred stock and our amended and restated bylaws for additional information before you buy any of our common stock. See “Where You Can Find More Information.”

### Common Stock

We are authorized to issue 400,000,000 shares of common stock. As of December 31, 2018, there were 75,480,699 shares of common stock issued and outstanding. Each holder of common stock is entitled to one vote for each share of common stock held on all matters submitted to a vote of stockholders. We have not provided for cumulative voting for the election of directors in our restated certificate of incorporation. This means that the holders of a majority of the shares voted can elect all of the directors then standing for election. Subject to preferences that may apply to shares of preferred stock outstanding at the time, the holders of outstanding shares of our common stock are entitled to receive dividends out of assets legally available at the times and in the amounts that our board of directors may determine from time to time. Upon our liquidation, dissolution or winding-up, the holders of common stock are entitled to share ratably in all assets remaining after payment of all

liabilities and the liquidation preferences of any outstanding preferred stock. Holders of common stock have no preemptive or conversion rights or other subscription rights. There are no redemption or sinking fund provisions applicable to the common stock. All outstanding shares of common stock are fully paid and nonassessable.

### **Preferred Stock**

We are authorized to issue 20,000,000 shares of preferred stock, of which 3,458,823 shares are designated as Series A convertible preferred stock, or the Series A Preferred Stock. As of December 31, 2018, 3,458,823 shares of Series A Preferred Stock were outstanding. The Series A Preferred Stock is a non-voting common stock equivalent and conversion of the Series A Preferred Stock is prohibited if the holder exceeds a specified threshold of voting security ownership. The Series A Preferred Stock is convertible into common stock on a one-for-one basis, subject to adjustment for events such as stock splits, combinations and the like. The Series A Preferred Stock has the right to receive dividends first or simultaneously with payment of dividends on common stock, in an amount equal to the product of (i) the dividend payable on each share of common stock and (ii) the number of shares of common stock issuable upon conversion of a share of Series A Preferred Stock. The Series A Preferred Stock has no voting rights except as required by law, as modified by our restated certificate of incorporation. In the event of any liquidation or dissolution of the company, the Series A Preferred Stock is entitled to receive \$0.001 per share prior to the payment of any amount to any holders of our capital stock ranking junior to the Series A Preferred Stock and thereafter shall participate *pari passu* with the holders of our common stock (on an as-if-converted-to-common-stock basis).

We may issue additional preferred stock, in series, with such designations, powers, preferences and other rights and qualifications, limitations or restrictions as our board of directors may authorize, without further action by our stockholders, including:

- the distinctive designation of each series and the number of shares that will constitute the series;
- the voting rights, if any, of shares of the series and the terms and conditions of the voting rights;
- the dividend rate on the shares of the series, the dates on which dividends are payable, any restriction, limitation or condition upon the payment of dividends, whether dividends will be cumulative, and the dates from and after which dividends shall accumulate;
- the prices at which, and the terms and conditions on which, the shares of the series may be redeemed, if the shares are redeemable;
- the terms and conditions of a sinking or purchase fund for the purchase or redemption of shares of the series, if such a fund is provided;
- any preferential amount payable upon shares of the series in the event of the liquidation, dissolution or winding up of, or upon the distribution of any of our assets; and
- the prices or rates of conversion or exchange at which, and the terms and conditions on which, the shares of the series may be converted or exchanged into other securities, if the shares are convertible or exchangeable.

The issuance of additional preferred stock could decrease the amount of earnings and assets available for distribution to holders of our common stock or adversely affect the rights and powers, including voting rights, of the holders of our common stock. The issuance of preferred stock could have the effect of delaying, deferring or preventing a change in control of our company, which could depress the market price of our common stock.

### **Registration Rights**

As of February 11, 2019, the holders of approximately 8,401,778 shares of our common stock, including shares of our common stock issuable upon conversion of our Series A Preferred Stock, are entitled to contractual

rights to require us to register those shares under the Securities Act of 1933, as amended, or Securities Act, subject to certain exceptions. These rights are provided under the terms of our amended and restated registration rights agreement. We generally must pay all expenses relating to any such registration, other than underwriting discounts and selling commissions. The registration rights terminate automatically upon the earlier of the sale of the registrable securities (as such term is defined in the agreement), the date such registrable securities may be resold without volume or manner of sale limitations pursuant to Rule 144 under the Securities Act or July 31, 2027.

### **Certain Provisions of Delaware Law and of our Charter and Bylaws**

Certain provisions of Delaware law, our restated certificate of incorporation and our amended and restated bylaws could have the effect of delaying, deferring or discouraging another party from acquiring control of us. These provisions, which are summarized below, are expected to discourage certain types of coercive takeover practices and inadequate takeover bids. These provisions are also designed, in part, to encourage persons seeking to acquire control of us to first negotiate with our board of directors. We believe that the benefits of increased protection of our potential ability to negotiate with an unfriendly or unsolicited acquirer outweigh the disadvantages of discouraging such proposals, including proposals that are priced above the then-current market value of our common stock, because, among other reasons, the negotiation of such proposals could result in an improvement of their terms.

*Certificate of Incorporation and Bylaws.* Our restated certificate of incorporation and amended and restated bylaws include provisions that:

- divide our board of directors into three classes, each serving staggered, three-year terms;
- authorize the board of directors to issue, without further action by the stockholders, up to 20,000,000 shares of undesignated preferred stock, of which 16,541,177 shares remain undesignated as of the date of this prospectus;
- require that any action to be taken by our stockholders be effected at a duly called annual or special meeting and not by written consent;
- specify that special meetings of our stockholders can be called only by the board of directors, the chairman of the board, or the chief executive officer;
- establish an advance notice procedure for stockholder approvals to be brought before an annual meeting of our stockholders, including proposed nominations of persons for election to the board of directors;
- provide that directors may be removed only for cause;
- establish the Court of Chancery of the State of Delaware as the sole and exclusive forum for certain derivative actions or proceedings brought on our behalf, any action asserting a claim of breach of fiduciary duty, any action asserting a claim against us arising pursuant to the General Corporation Law of the State of Delaware (the “DGCL”), or any action asserting a claim governed by the internal affairs doctrine;
- require the affirmative vote of holders of at least 66 2/3 % of the total votes eligible to be cast in the election of directors to amend, alter, change or repeal our bylaws; and provide that vacancies on our board of directors may be filled only by a majority of directors then in office, even though less than a quorum.

*Delaware anti-takeover statute.* We are subject to the provisions of Section 203 of the DGCL regulating corporate takeovers. In general, Section 203 prohibits a publicly-held Delaware corporation from engaging, under certain circumstances, in a business combination with an interested stockholder for a period of three years following the date the person became an interested stockholder unless:

- prior to the date of the transaction, the board of directors of the corporation approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- upon completion of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the voting stock outstanding, but not the outstanding voting stock owned by the interested stockholder, (1) shares owned by persons who are directors and also officers and (2) shares owned by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or at or subsequent to the date of the transaction, the business combination is approved by the board of directors of the corporation and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66 2/3 % of the outstanding voting stock which is not owned by the interested stockholder.

Generally, a “business combination” includes a merger, asset or stock sale, or other transaction resulting in a financial benefit to the “interested stockholder” and an “interested stockholder” is a person who, together with affiliates and associates, owns or, within three years prior to the determination of interested stockholder status, did own 15% or more of a corporation’s outstanding voting stock. We expect the existence of this provision to have an anti-takeover effect with respect to transactions our board of directors does not approve in advance. We also anticipate that Section 203 may discourage business combinations or other attempts that might result in a premium over the market price for the shares of common stock held by our stockholders. The provisions of DGCL, our restated certificate of incorporation and our amended and restated bylaws could have the effect of discouraging others from attempting hostile takeovers and, as a consequence, they may also inhibit temporary fluctuations in the market price of our common stock that often result from actual or rumored hostile takeover attempts. These provisions may also have the effect of preventing changes in our management. It is possible that these provisions could make it more difficult to accomplish transactions that stockholders may otherwise deem to be in their best interests.

#### **Transfer Agent and Registrar**

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company, LLC. The transfer agent’s address is 6201 5th Avenue, Brooklyn, New York 11219.

## PLAN OF DISTRIBUTION

We may sell the common stock offered by this prospectus to one or more underwriters or dealers for public offering and sale by them or to investors directly or through agents. The accompanying prospectus supplement will set forth the terms of the offering and the method of distribution and will identify any firms acting as underwriters, dealers or agents in connection with the offering, including:

- the name or names of any underwriters, dealers or agents;
- the purchase price of the common stock and the proceeds to us from the sale;
- any underwriting discounts and other items constituting compensation to underwriters, dealers or agents;
- any public offering price;
- any discounts or concessions allowed or reallocated or paid to dealers; and
- any securities exchange or market on which the common stock offered in the prospectus supplement may be listed.

Only those underwriters identified in such prospectus supplement are deemed to be underwriters in connection with the common stock offered in the prospectus supplement.

The distribution of the securities may be effected from time to time in one or more transactions at a fixed price or prices, which may be changed, or at prices determined as the applicable prospectus supplement specifies. The securities may be sold through an at the market offering, a rights offering, forward contracts or similar arrangements. In addition, we may enter into derivative transactions with third parties, or sell securities not covered by this prospectus to third parties in privately negotiated transactions. If the applicable prospectus supplement so indicates, in connection with those derivatives, the third parties may sell securities covered by this prospectus and the applicable prospectus supplement, including in short sale transactions. If so, the third party may use securities pledged by us or borrowed from us or others to settle those sales or to close out any related open borrowings of stock, and may use securities received from us in settlement of those derivatives to close out any related open borrowings of stock. The third party in such sale transactions will be an underwriter and, if not identified in this prospectus, will be named in the applicable prospectus supplement (or a post-effective amendment). In addition, we may otherwise loan or pledge securities to a financial institution or other third party that in turn may sell the securities short using this prospectus and an applicable prospectus supplement. Such financial institution or other third party may transfer its economic short position to investors in our securities or in connection with a concurrent offering of other securities.

In connection with the sale of the securities, underwriters, dealers or agents may be deemed to have received compensation from us in the form of underwriting discounts or commissions and also may receive commissions from securities purchasers for whom they may act as agent. Underwriters may sell the securities to or through dealers, and the dealers may receive compensation in the form of discounts, concessions or commissions from the underwriters or commissions from the purchasers for whom they may act as agent.

We will provide in the applicable prospectus supplement information regarding any underwriting discounts or other compensation that we pay to underwriters or agents in connection with the securities offering, and any discounts, concessions or commissions that underwriters allow to dealers. Underwriters, dealers and agents participating in the securities distribution may be deemed to be underwriters, and any discounts, commissions or concessions they receive and any profit they realize on the resale of the securities may be deemed to be underwriting discounts and commissions under the Securities Act. Underwriters and their controlling persons, dealers and agents may be entitled, under agreements entered into with us, to indemnification against and contribution toward specific civil liabilities, including liabilities under the Securities Act. Some of the underwriters, dealers or agents who participate in the securities distribution may engage in other transactions with, and perform other services for, us or our subsidiaries in the ordinary course of business.

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Our common stock is currently listed on The New York Stock Exchange. To facilitate the offering of securities, certain persons participating in the offering may engage in transactions that stabilize, maintain or otherwise affect the price of the securities. This may include over-allotments or short sales of the securities, which involve the sale by persons participating in the offering of more securities than were sold to them. In these circumstances, these persons would cover such over-allotments or short positions by making purchases in the open market or by exercising their over-allotment option, if any. In addition, these persons may stabilize or maintain the price of the securities by bidding for or purchasing securities in the open market or by imposing penalty bids, whereby selling concessions allowed to dealers participating in the offering may be reclaimed if securities sold by them are repurchased in connection with stabilization transactions. The effect of these transactions may be to stabilize or maintain the market price of the securities at a level above that which might otherwise prevail in the open market. These transactions may be discontinued at any time.

## LEGAL MATTERS

Unless otherwise indicated in the applicable prospectus supplement, the validity of the shares of common stock offered by this prospectus will be passed upon for us by Pillsbury Winthrop Shaw Pittman LLP, Palo Alto, California.

## EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2018, as set forth in their report, which is incorporated by reference in this prospectus and elsewhere in this registration statement. Our consolidated financial statements are incorporated by reference in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

## WHERE YOU CAN FIND MORE INFORMATION

We have filed a registration statement on Form S-3 with the SEC under the Securities Act. This prospectus is part of the registration statement but the registration statement includes and incorporates by reference additional information and exhibits. We file annual, quarterly and current reports, proxy statements and other information with the SEC. The SEC maintains a website that contains reports, proxy and information statements and other information regarding companies, such as ours, that file documents electronically with the SEC. The address of that website is <http://www.sec.gov>. The information on the SEC's website is not part of this prospectus, and any references to this website or any other website are inactive textual references only.

The SEC permits us to "incorporate by reference" the information contained in documents we file with the SEC, which means that we can disclose important information to you by referring you to those documents rather than by including them in this prospectus. Information that is incorporated by reference is considered to be part of this prospectus and you should read it with the same care that you read this prospectus. Later information that we file with the SEC will automatically update and supersede the information that is either contained, or incorporated by reference, in this prospectus, and will be considered to be a part of this prospectus from the date those documents are filed. We have filed with the SEC, and incorporate by reference in this prospectus:

- our Annual Report on [Form 10-K](#) for the year ended December 31, 2018, filed with the SEC on February 28, 2019;
- the information contained in our Definitive Proxy Statement on [Schedule 14A](#) filed with the SEC on April 5, 2018 and incorporated by reference into Part III of our Annual Report on Form 10-K for the year ended December 31, 2017;
- our Current Report on [Form 8-K](#) filed with the SEC on March 1, 2019; and
- the description of our common stock contained in our Registration Statement on [Form 8-A](#) filed on February 11, 2015, including any amendment or report filed for the purpose of updating such description.

We also incorporate by reference all additional documents that we file with the SEC under the terms of Section 13(a), 13(c), 14 or 15(d) of the Exchange Act that are made after the filing date of the registration statement of which this prospectus is a part, as well as between the date of this prospectus and the termination of any offering of common stock offered by this prospectus. We are not, however, incorporating, in each case, any documents or information that we are deemed to furnish and not file in accordance with SEC rules.

You may request a copy of any or all of the documents incorporated by reference but not delivered with this prospectus, at no cost, by writing or telephoning us at the following address and number: Investor Relations,

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Invitae Corporation, 1400 16th Street, San Francisco, California 94103 and (415) 374-7782. We will not, however, send exhibits to those documents, unless the exhibits are specifically incorporated by reference in those documents.

**16,320,476 Shares**



**INVITAE**

**Common Stock**

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**PROSPECTUS SUPPLEMENT**

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