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

SCHEDULE 14A

**Proxy Statement Pursuant to Section 14(a) of the
Securities Exchange Act of 1934 (Amendment No.)**

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

- Preliminary Proxy Statement
- Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))**
- Definitive Proxy Statement
- Definitive Additional Materials
- Soliciting Material under §240.14a-12

Invitae Corporation

(Name of Registrant as Specified In Its Charter)

(Name of Person(s) Filing Proxy Statement, if other than the Registrant)

Payment of Filing Fee (Check the appropriate box):

- No fee required.
- Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.

(1) Title of each class of securities to which transaction applies:

(2) Aggregate number of securities to which transaction applies:

(3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined):

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(1) Amount Previously Paid:

(2) Form, Schedule or Registration Statement No.:

(3) Filing Party:

(4) Date Filed:



Invitae Corporation
1400 16th Street
San Francisco, California 94103
(415) 374-7782

April 5, 2018

Dear Stockholder:

You are cordially invited to attend the 2018 Annual Meeting of Stockholders of Invitae Corporation. The meeting will be held at 9:00 a.m., Pacific Time, on Tuesday, May 15, 2018 at the Company's headquarters located at 1400 16th Street, San Francisco, CA 94103.

The formal notice of the Annual Meeting and the Proxy Statement has been made a part of this invitation.

Whether or not you plan to attend the Annual Meeting, it is important that your shares be represented and voted at the Annual Meeting. After reading the Proxy Statement, please promptly vote. **Your shares cannot be voted unless you sign, date and return the enclosed proxy, vote by telephone or the Internet, vote as instructed by your broker, or attend the Annual Meeting in person.**

We have also enclosed a copy of our 2017 Annual Report to Stockholders.

We look forward to seeing you at the meeting.

Sincerely,

Sean E. George, Ph.D.
President and Chief Executive Officer

Invitae Corporation

**NOTICE OF ANNUAL MEETING OF STOCKHOLDERS
To Be Held on Tuesday, May 15, 2018**

To our Stockholders:

Invitae Corporation will hold its Annual Meeting of Stockholders at 9:00 a.m., Pacific Time, on Tuesday, May 15, 2018 at the Company's headquarters located at 1400 16th Street, San Francisco, CA 94103.

We are holding this Annual Meeting:

- to elect one Class II director to serve until the 2021 Annual Meeting or until his successor is duly elected and qualified;
- to ratify the appointment of Ernst & Young LLP as our independent registered public accounting firm for the year ending December 31, 2018; and
- to transact such other business as may properly come before the Annual Meeting and any adjournments or postponements of the Annual Meeting.

Stockholders of record at the close of business on March 19, 2018 are entitled to notice of and to vote at this meeting and any adjournments or postponements of the Annual Meeting.

It is important that your shares be represented at this meeting. Even if you plan to attend the meeting, we hope that you will vote promptly. Please review the instructions on page 1 of the attached Proxy Statement regarding your voting options.

By Order of the Board of Directors



Lee Bendekgey
Chief Operating Officer and Secretary

San Francisco, California
April 5, 2018

**Important Notice Regarding the Availability of Proxy Materials for the
Annual Meeting of Stockholders to be held on May 15, 2018.**

**The Proxy Statement and Annual Report are available at
<http://www.astproxyportal.com/ast/19938/>**

Invitae Corporation
1400 16th Street
San Francisco, California 94103

PROXY STATEMENT

Information Concerning Voting and Solicitation

This Proxy Statement is being furnished to you in connection with the solicitation by the board of directors of Invitae Corporation, a Delaware corporation (“we,” “us,” “our,” “Invitae” or the “Company”), of proxies in the accompanying form to be used at the Annual Meeting of Stockholders of the Company to be held at the Company’s headquarters located at 1400 16th Street, San Francisco, California 94103 on Tuesday, May 15, 2018 at 9:00 a.m., Pacific Time, and any adjournments or postponements thereof (the “Annual Meeting”).

This Proxy Statement and the accompanying form of proxy are being mailed to stockholders on or about April 5, 2018.

**Questions and Answers About
the Proxy Materials and the Annual Meeting**

What proposals will be voted on at the Annual Meeting?

Two proposals will be voted on at the Annual Meeting:

- The election of one Class II director to serve until the 2021 Annual Meeting or until his successor is duly elected and qualified; and
- The ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm for the year ending 2018.

What are the Board’s recommendations?

Our board recommends that you vote:

- “FOR” election of the nominated Class II director; and
- “FOR” ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm for the year ending 2018.

Will there be any other items of business on the agenda?

We do not expect any other items of business because the deadline for stockholder proposals and nominations has already passed. Nonetheless, in case there is an unforeseen need, the accompanying proxy gives discretionary authority to the persons named on the proxy with respect to any other matters that might be properly brought before the meeting. Those persons intend to vote that proxy in accordance with their best judgment.

Who is entitled to vote?

Stockholders of record at the close of business on March 19, 2018 (the “Record Date”) may vote at the Annual Meeting. Each stockholder is entitled to one vote for each share of the Company’s common stock held as of the Record Date.

What is the difference between holding shares as a stockholder of record and as a beneficial owner?

Stockholder of Record. If your shares are registered directly in your name with Invitae's transfer agent, American Stock Transfer & Trust Company, LLC, you are considered, with respect to those shares, the stockholder of record. The Proxy Statement, Annual Report and proxy card have been sent directly to you by Invitae.

Beneficial Owner. If your shares are held in a brokerage account or by a bank or other nominee, you are considered the beneficial owner of shares held in street name. The Proxy Statement, Annual Report and voting instructions have been forwarded to you by your broker, bank or nominee who is considered, with respect to those shares, the stockholder of record.

How do I vote?

You may vote using any of the following methods:

By Mail – Stockholders of record may submit proxies by completing, signing and dating each proxy card received and returning it in the prepaid envelope. Sign your name exactly as it appears on the proxy. If you return your signed proxy but do not indicate your voting preferences, your shares will be voted on your behalf “FOR” the election of the nominee for Class II director and “FOR” the ratification of the independent registered public accounting firm for 2018. Stockholders who hold shares beneficially in street name may provide voting instructions by mail by completing, signing and dating the voting instruction forms provided by their brokers, banks or other nominees.

By Telephone – Stockholders of record may submit proxies by following the telephone voting instructions on their proxy cards. Most stockholders who hold shares beneficially in street name may provide voting instructions by telephone by calling the number specified on the voting instruction form provided by their brokers, banks or nominees. Please check the voting instruction form for telephone voting availability. Please be aware that if you submit voting instructions by telephone, you may incur costs such as telephone access charges for which you will be responsible. The telephone voting facilities will close at 11:59 p.m., Eastern Daylight Time, the day before the meeting date.

By Internet – Stockholders of record may submit proxies by following the Internet voting instructions on their proxy cards. Most stockholders who hold shares beneficially in street name may provide voting instructions by accessing the website specified on the voting instruction form provided by their brokers, banks or nominees. Please check the voting instruction form for Internet voting availability. Please be aware that if you vote over the Internet, you may incur costs such as Internet access charges for which you will be responsible. The Internet voting facilities will close at 11:59 p.m., Eastern Daylight Time, the day before the meeting date.

In Person at the Annual Meeting – Shares held in your name as the stockholder of record may be voted in person at the Annual Meeting. Shares held beneficially in street name may be voted in person only if you obtain a legal proxy from the broker, bank or nominee that holds your shares giving you the right to vote the shares.

Even if you plan to attend the Annual Meeting, we recommend that you also submit your proxy or voting instructions or vote by telephone or the Internet so that your vote will be counted if you later decide not to attend the meeting.

Can I change my vote or revoke my proxy?

You may change your vote or revoke your proxy at any time prior to the vote at the Annual Meeting. If you are a stockholder of record and submitted your proxy by mail, you must file with the Secretary of the Company a written notice of revocation or deliver, prior to the vote at the Annual Meeting, a valid, later-dated proxy. If you

submitted your proxy by telephone or the Internet, you may change your vote or revoke your proxy with a later telephone or Internet proxy, as the case may be. Attendance at the Annual Meeting will not have the effect of revoking a proxy unless you give written notice of revocation to the Secretary before the proxy is exercised or you vote by written ballot at the Annual Meeting.

If you are a beneficial owner of shares held in street name and you wish to change or revoke your vote, please consult the voting instructions provided with this proxy statement or contact your broker, bank or nominee.

How are votes counted?

For Proposal 1, the election of director, you may vote “FOR” the Class II nominee or your vote may be “WITHHELD” with respect to the nominee. “WITHHELD” votes will not affect the outcome.

For Proposal 2, the appointment of Ernst & Young LLP as our independent registered public accounting firm for 2018, you may vote “FOR,” vote “AGAINST” or “ABSTAIN.” Abstentions will not affect the outcome.

If you provide specific instructions, your shares will be voted as you instruct. If you sign your proxy card or voting instruction form with no further instructions, your shares will be voted in accordance with the recommendations of the board of directors (“FOR” the Class II nominee to the board of directors, “FOR” the ratification of Ernst & Young LLP as our independent registered public accounting firm and in the discretion of the proxy holders on any other matters that may properly come before the meeting).

What vote is required to approve each item?

For Proposal 1, the election of director, the nominee receiving the highest number of “FOR” votes at the Annual Meeting will be elected.

Proposal 2 requires the affirmative “FOR” vote of the holders of a majority of the shares present at the Annual Meeting in person or by proxy and entitled to vote.

If you hold shares beneficially in street name and do not provide your broker or nominee with voting instructions, your shares may constitute “broker non-votes.” Generally, broker non-votes occur on a matter when a broker or nominee does not have discretionary voting authority to vote on that matter without instructions from the beneficial owner and instructions are not given. Discretionary items are proposals considered “routine” under the rules of the New York Stock Exchange, such as the ratification of the appointment of our independent auditors, and therefore, broker non-votes are not expected to exist with respect to this proposal. The election of directors is considered a non-routine item for which brokers and nominees do not have discretionary voting power and, therefore, broker non-votes may exist with respect to this proposal. In tabulating the voting result for any particular proposal, shares that constitute broker non-votes are not considered entitled to vote on that proposal. Thus, broker non-votes will not affect the outcome of any matter being voted on at the Annual Meeting, assuming that a quorum is obtained.

Is cumulative voting permitted for the election of director?

Stockholders may not cumulate votes in the election of director, which means that each stockholder may vote no more than the number of shares he or she owns for a single director nominee.

What constitutes a quorum?

The presence at the Annual Meeting, in person or by proxy, of the holders of a majority of the shares of common stock outstanding on the Record Date will constitute a quorum. As of the close of business on the Record Date, there were 53,705,890 shares of our common stock outstanding. Both abstentions and broker non-votes are counted for the purpose of determining the presence of a quorum.

How are proxies solicited?

Our employees, officers and directors may solicit proxies. We will pay the cost of printing and mailing proxy materials, and will reimburse brokerage houses and other custodians, nominees and fiduciaries for their reasonable out-of-pocket expenses for forwarding proxy material to the owners of our common stock. At this time, we have not engaged a proxy solicitor. If we do engage a proxy solicitor, we will pay the customary costs associated with such engagement.

IMPORTANT

Please promptly vote by signing, dating and returning the enclosed proxy card in the postage-prepaid return envelope provided, voting by telephone or the Internet, or voting following the instructions provided by your bank, broker or nominee, so that your shares can be voted.

PROPOSAL 1

ELECTION OF DIRECTOR

Directors and Nominee

Our amended and restated bylaws provide that our board of directors shall consist of such number of directors as the board of directors may from time to time determine. Our board of directors currently consists of five directors. The authorized number of directors may be changed by resolution of our board of directors. Vacancies on our board of directors can be filled by resolution of our board of directors. Our board of directors is divided into three classes, each serving staggered, three-year terms:

- Our Class I directors are Geoffrey S. Crouse and Christine M. Gorjanc and their terms will expire at our 2020 annual meeting of stockholders;
- Our Class II director is Randal W. Scott and his term will expire at the Annual Meeting; and
- Our Class III directors are Eric Aguiar and Sean E. George and their terms will expire at our 2019 annual meeting of stockholders.

One Class II director will be elected at the Annual Meeting to serve until the annual meeting of stockholders to be held in 2021 or until his successor is duly elected and qualified, with the other classes of directors continuing to serve for the remainder of their respective terms. The nominee receiving the highest number of affirmative votes will be elected as the Class II director. The nominating and corporate governance committee of the board of directors has recommended, and the board of directors has designated, Randal W. Scott as the nominee for Class II director to serve until the 2021 annual meeting, and he has indicated to us that he will be able to serve. If the nominee is unable or declines to serve as a director at the time of the Annual Meeting, an event that we do not currently anticipate, proxies will be voted for any nominees designated by the board of directors, taking into account any recommendations of the nominating and corporate governance committee, to fill such vacancy.

The name of the Class II nominee and the other members of the board of directors and certain biographical information as of March 31, 2018 are set forth below:

<u>Name</u>	<u>Age</u>	<u>Position with Company</u>	<u>Director Since</u>
Randal W. Scott, Ph.D.	60	Executive Chairman of the Board	2010
Sean E. George, Ph.D.	44	President, Chief Executive Officer, Director and Co-Founder	2010
Eric Aguiar, M.D.	56	Director	2010
Geoffrey S. Crouse	47	Director	2012
Christine M. Gorjanc	61	Director	2015

Randal W. Scott, Ph.D. has served as our Executive Chairman since January 2017, our Chairman from August 2012 to January 2017 and as a director since 2010. From August 2012 through January 2017 Dr. Scott served as our Chief Executive Officer. From 2000 through August 2012, Dr. Scott held a number of positions at Genomic Health, Inc., a publicly held genomic information company which he co-founded in 2000, most recently serving as the Chief Executive Officer of a wholly owned subsidiary of Genomic Health, and as a director. Dr. Scott also served as Executive Chairman of the Board of Genomic Health from January 2009 until March 2012 and as Chairman of the Board and Chief Executive Officer from August 2000 until December 2008. Dr. Scott was a founder of Incyte Corporation, which at the time was a genomic information company, and served in various roles from 1991 through 2000, including Chairman of the Board, President and Chief Scientific Officer. Dr. Scott holds a B.S. in Chemistry from Emporia State University and a Ph.D. in Biochemistry from the University of Kansas. We believe that Dr. Scott is qualified to serve on our board of directors due to his years of experience in the life sciences industry and his extensive executive leadership, management and board experience at public companies, and as our former Chief Executive Officer.

Sean E. George, Ph.D. is one of our co-founders and has been our President and Chief Executive Officer since January 2017, a position he previously held from January 2010 through August 2012. Dr. George served as our President since August 2012, and he has served as our Chief Operating Officer from August 2012 until January 2017. He has also served as a director since January 2010. Prior to co-founding Invitae, Dr. George served as Chief Operating Officer from 2007 to November 2009 at Navigenics, Inc., a personalized medicine company. Previously, he served as Senior Vice President of Marketing and Senior Vice President, Life Science Business at Affymetrix, Inc., a provider of life science and molecular diagnostic products, as well as Vice President, Labeling and Detection Business at Invitrogen Corporation, a provider of tools to the life sciences industry, during his tenure there from 2002 to 2007. Dr. George holds a B.S. in Microbiology and Molecular Genetics from the University of California Los Angeles, an M.S. in Molecular and Cellular Biology from the University of California Santa Barbara, and a Ph.D. in Molecular Genetics from the University of California Santa Cruz. We believe that Dr. George's perspective as our founder and his current role as President and Chief Executive Officer qualify him to serve on our board of directors.

Eric Aguiar, M.D. has been a member of our board of directors since September 2010. Since January 2016 he has been a partner at Aisling Capital, an investment firm specializing in products, technologies, and global businesses that advance health. He was a partner in the venture capital firm Thomas, McNerney & Partners from 2007 to January 1, 2016. Prior to joining that firm, he was a Managing Director of HealthCare Ventures, a healthcare focused venture capital firm, from 2001 to 2007. Dr. Aguiar was Chief Executive Officer and a director of Genovo, Inc., a biopharmaceutical company focused on gene delivery and gene regulation, from 1998 to 2000. Dr. Aguiar currently serves as a director of Biohaven Pharmaceutical Company Ltd., a publicly held biotech company, and previously served as a director of Amarin Pharmaceuticals, a publicly held biopharmaceutical company, as well as on the boards of directors of numerous private companies including companies in the life sciences industry. He is a member of the Board of Overseers of the Tufts School of Medicine and a member of the Council on Foreign Relations. He received an M.D. with honors from Harvard Medical School and a B.A. in Arts and Sciences from Cornell University. Dr. Aguiar was also a Luce Fellow and is a Chartered Financial Analyst. We believe that Dr. Aguiar is qualified to serve on our board of directors due to his extensive experience with in the life science field, his experience on various boards, and his management and financial experience with life sciences companies.

Geoffrey S. Crouse has served on our board of directors since March 2012. Since July 2017, Mr. Crouse has served as Chief Executive Officer of Syneron Candela, a privately held non-surgical aesthetic device company. From December 2015 to July 2017, Mr. Crouse was a consultant for private equity evaluating investment opportunities. Mr. Crouse served as Chief Executive Officer of Cord Blood Registry from September 2012 to August 2015 when the Company was sold to AMAG Pharmaceuticals. He served as Executive Vice President of AMAG until December 2015. Cord Blood Registry stores stem cells from umbilical blood and tissues. He previously served as Chief Operating Officer at Immucor, Inc., an in vitro diagnostics company, from August 2009 to April 2011. From April 2011 through September 2012, Mr. Crouse was a consultant for private equity evaluating investment opportunities. Prior to Immucor, he served as Vice President of the life sciences business at Millipore Corporation, a provider of technologies, tools and services for the life science industry, from 2006 to 2009. Prior to joining Millipore, he worked at Roche, a pharmaceuticals and diagnostics company, where he held various roles from 2003 to 2006. Mr. Crouse holds a B.A. in English and Japanese from Boston College and an M.B.A. and Masters of Public Health from the University of California Berkeley. We believe that Mr. Crouse is qualified to serve on our board of directors due to his extensive experience in the life sciences industry and his management and financial experience with life sciences companies.

Christine M. Gorjanc has served on our board of directors since November 2015. She has served as the Chief Financial Officer of Netgear, Inc., a publicly traded provider of networking products and services, since January 2008, where she previously served as Chief Accounting Officer from December 2006 to January 2008 and Vice President, Finance from November 2005 to December 2006. From September 1996 through November 2005, Ms. Gorjanc served as Vice President, Controller, Treasurer and Assistant Secretary for Aspect Communications Corporation, a provider of workforce and customer management solutions. From October 1988

through September 1996, she served as the Manager of Tax for Tandem Computers, Inc., a provider of fault-tolerant computer systems. Prior to that, Ms. Gorjanc served in management positions at Xidex Corporation, a manufacturer of storage devices, and spent eight years in public accounting with a number of public accounting firms. Ms. Gorjanc holds a B.A. in Accounting (with honors) from the University of Texas at El Paso and a M.S. in Taxation from Golden Gate University. We believe that Ms. Gorjanc is qualified to serve on our board of directors due to her extensive experience in the technology industry and her management and financial experience.

The Board of Directors Recommends a Vote “FOR” Election as Director for the Class II Nominee Set Forth Above.

Director Nominations

The board of directors nominates directors whose term is scheduled to expire at the next annual meeting of stockholders and elects new directors to fill vacancies when they arise. The nominating and corporate governance committee has the responsibility to identify, evaluate, recruit and recommend qualified candidates to the board for nomination or election.

Our board strives to find directors who are experienced and dedicated individuals with diverse backgrounds, perspectives and skills. Our governance guidelines contain membership criteria that call for candidates to be selected for their character, judgment, diversity of experience, business acumen and ability to act on behalf of all stockholders. In addition, we expect each director to be committed to enhancing stockholder value and to have sufficient time to effectively carry out his or her duties as a director. Our nominating and corporate governance committee also seeks to ensure that a majority of our directors are independent under the rules of the New York Stock Exchange, or NYSE, and that one or more of our directors is an “audit committee financial expert” under the rules of the Securities and Exchange Commission, or SEC.

The nominating and corporate governance committee believes it appropriate for certain key members of our management – currently, the president and chief executive officer and our executive chairman of the board – to participate as members of the board of directors.

Prior to our annual meeting of stockholders, our nominating and corporate governance committee identifies director nominees first by evaluating the current directors whose terms will expire at the annual meeting and who are willing to continue in service. The candidates are evaluated based on the criteria described above, the candidate’s prior service as a director, and the needs of the board of directors for any particular talents and experience. If a director no longer wishes to continue in service, if the nominating and corporate governance committee decides not to re-nominate a director, or if a vacancy is created on the board of directors because of a resignation or an increase in the size of the board or other event, then the committee will consider whether to replace the director or to decrease the size of the board. If the decision is to replace a director, the nominating and corporate governance committee will consider various candidates for board membership, including those suggested by committee members, by other board members, a director search firm engaged by the committee or our stockholders. Prospective nominees are evaluated by the nominating and corporate governance committee based on the membership criteria described above and set forth in our governance guidelines.

A stockholder who wishes to suggest a prospective nominee for the board of directors should notify the Secretary of the Company or any member of the nominating and corporate governance committee in writing with any supporting material the stockholder considers appropriate. In addition, our Bylaws contain provisions that address the process by which a stockholder may nominate an individual to stand for election to the board of directors at our annual meeting of stockholders. In order to nominate a candidate for director, a stockholder must give timely notice in writing to the Secretary of the Company and otherwise comply with the provisions of our Bylaws. To be timely, our Bylaws provide that we must have received the stockholder’s notice not more than 120 days nor less than 90 days prior to the first anniversary of the preceding year’s annual meeting of

stockholders. However, in the event that no annual meeting was held in the preceding year or the annual meeting is called for a date that is more than 30 days before or more than 60 days after the first anniversary date of the preceding year's annual meeting of stockholders, notice by the stockholder to be timely must be so received by our Secretary not later than the close of business on the later of (1) the 90th day prior to the date of the scheduled annual meeting and (2) the 10th day following the earlier to occur of the day on which notice of the date of the scheduled annual meeting was mailed or the day on which public announcement of the date of such scheduled annual meeting was first made. An adjournment or postponement of an annual meeting will not commence a new time period or extend any time period for the giving of the stockholder's notice described above. Information required by the Bylaws to be in the notice include the name and contact information for the candidate and the person making the nomination and other information about the nominee that must be disclosed in proxy solicitations under Section 14 of the Securities Exchange Act of 1934, or the Exchange Act, and the related rules and regulations under that Section.

Each notice delivered by a stockholder who wishes to recommend a prospective nominee to our board for consideration by the nominating and corporate governance committee generally must include the following information about the prospective nominee:

- the name, age, business address and residence address of the person;
- the principal occupation of the person;
- the number of shares of our capital stock owned by the person;
- a description of all compensation and other relationships during the past three years between the stockholder and the person;
- any other information relating to the person required to be disclosed pursuant to Section 14 of the Exchange Act; and
- the person's written consent to serve as a director if elected.

The nominating and corporate governance committee may require any prospective nominee recommended by a stockholder to furnish such other information as the committee reasonably may require to determine the person's eligibility to serve as an independent director or that could be material to a stockholder's understanding of the person's independence or lack thereof.

Stockholder nominations must be made in accordance with the procedures outlined in, and include the information required by, our Bylaws and must be addressed to: Secretary, Invitae Corporation, 1400 16th Street, San Francisco, California 94103. You may obtain a copy of the full text of this provision of the Bylaws by writing to our Secretary at the above address.

Director Independence

Our board of directors determined that Eric Aguiar, Geoffrey S. Crouse and Christine M. Gorjanc are "independent directors" as defined under the rules of the NYSE. There are no family relationships among any of our directors or executive officers.

Board Meetings

The board of directors held 10 meetings during 2017. Each director attended at least 75% of the aggregate meetings held by the board of directors. We do not have a policy that requires the attendance of directors at the Annual Meeting. Two of our directors attended the 2017 annual meeting of stockholders.

Meeting of Non-Management and Independent Directors and Communications with Directors

During meetings of our board of directors, our independent directors meet in an executive session without management or management directors present. The purpose of these executive sessions is to promote open and candid discussion among the non-management directors. Christine M. Gorjanc, our lead independent director, presides over the executive sessions of the independent directors. Our board of directors welcomes questions or comments about our company and our operations. If a stockholder or interested party wishes to communicate with our board of directors, including our independent directors, they may send their communication in writing to: Secretary, Invitae Corporation, 1400 16th Street, San Francisco, California 94103. You must include your name and address in the written communication and indicate whether you are a stockholder. The Secretary will review any communication received from a stockholder or interested party, and all material communications will be forwarded to the appropriate director or directors or committee of the board of directors based on the subject matter.

Board Committees

We have established an audit committee, compensation committee and nominating and corporate governance committee, each of which operate under a charter that has been approved by our board of directors. Copies of each charter are posted on the corporate governance section of our website at www.invitae.com. We believe that the composition of these committees meets the criteria for independence under, and the functioning of these committees complies with the applicable requirements of, the Sarbanes-Oxley Act, and the current rules and regulations of the SEC and the NYSE. We intend to comply with future requirements as they become applicable to us. Each committee has the composition and responsibilities described below.

Audit Committee

Current Members:

Christine M. Gorjanc (Chair)
Eric Aguiar, M.D.
Geoffrey S. Crouse

Number of Meetings in 2017:

4

Functions:

Our audit committee assists our board of directors in fulfilling its legal and fiduciary obligations in matters involving our accounting, auditing, financial reporting, internal control and legal compliance functions, and is directly responsible for the approval of the services performed by our independent registered public accounting firm and reviewing of their reports regarding our accounting practices and systems of internal accounting control. Our audit committee also oversees the audit efforts of our independent registered public accounting firm and takes actions as it deems necessary to satisfy itself that such firm is independent of management. Our audit committee is also responsible for monitoring the integrity of our consolidated financial statements and our compliance with legal and regulatory requirements as they relate to financial statements or accounting matters. Our board of directors has determined that each of Dr. Aguiar, Mr. Crouse and Ms. Gorjanc is an audit committee financial expert, as defined by the rules promulgated by the SEC, and each of the members of our audit committee has the requisite financial sophistication as defined under the applicable rules and regulations of the NYSE.

Compensation Committee

Current Members: Geoffrey S. Crouse (Chair)
Eric Aguiar, M.D.

Number of Meetings in 2017: 1

Functions: Our compensation committee assists our board of directors in meeting its responsibilities with regard to oversight and determination of executive compensation and assesses whether our compensation structure establishes appropriate incentives for officers and employees. Our compensation committee reviews and makes recommendations to our board of directors with respect to our major compensation plans, policies and programs. In addition, our compensation committee reviews and makes recommendations for approval by the independent members of our board of directors regarding the compensation for our Executive Chairman of the Board and executive officers, establishes and modifies the terms and conditions of employment of our Executive Chairman of the Board and executive officers and administers our stock option plans.

The board of directors has established a Special Stock Incentive Plan Committee, the members of which are our President and Chief Executive Officer, Sean E. George, our Chief Financial Officer, Shelly D. Guyer, and our Chief Operating Officer, Lee Bendekgey. The Committee has been delegated the authority to make awards or grants under our Stock Incentive Plan (including shares, options, or restricted stock units) to employees (including new employees), other than to any member of our board of directors and individuals designated by our board of directors as “Section 16 officers.” The Committee’s authority expires, unless renewed, after December 31, 2018.

Nominating and Corporate Governance Committee

Current Members: Eric Aguiar, M.D. (Chair)
Geoffrey S. Crouse

Number of Meetings in 2017: 1

Functions: Our nominating and corporate governance committee is responsible for making recommendations to our board of directors regarding candidates for directorships and the size and composition of the board of directors. In addition, our nominating and corporate governance committee is responsible for overseeing our corporate governance guidelines, and reporting and making recommendations to the board of directors concerning corporate governance matters.

Corporate Governance

Board Leadership Structure

The board of directors has chosen to separate the roles of chief executive officer and chairman of the board of directors and to have two executive officers serve in those roles. This situation enables our co-founder, President and Chief Executive Officer, Dr. George, to focus on the day-to-day operation of our business while allowing Dr. Scott, our Executive Chairman and former Chief Executive Officer, to focus on leadership of the board of directors and on strategic matters. While the board believes it is important to retain the organizational flexibility to determine whether the roles of chairman of the board and chief executive officer should be

separated or combined in one individual, or whether to elect an independent non-executive chairman, the board currently believes that the interests of the Company and its stockholders are better served with an executive officer serving in each role.

The board believes this structure promotes better alignment of strategic development and execution, more effective implementation of strategic initiatives, and clearer accountability for their success or failure. Moreover, the board believes that having an executive officer serve in each position does not impede independent oversight. The independent directors have chosen to appoint a lead independent director, currently the chair of the audit committee, Ms. Gorjanc, to run executive sessions of the board. The independent directors meet in an executive session after each regular board meeting, at which the independent directors have the opportunity to discuss management performance.

Role in Risk Oversight

Our board of directors is responsible for overseeing the overall risk management process at the company. The responsibility for managing risk rests with executive management while the committees of our board of directors and our board of directors as a whole participate in the oversight process. Our board of directors' risk oversight process builds upon management's risk assessment and mitigation processes, which include reviews of long-term strategic and operational planning, executive development and evaluation, regulatory and legal compliance, and financial reporting and internal controls.

Certain Relationships and Related Transactions

It is our policy that all employees, officers and directors must avoid any activity that is or has the appearance of conflicting with the interests of the Company. This policy is included in our Code of Business Conduct and Ethics as discussed below. Additionally, we conduct a review of all related party transactions for potential conflict of interest situations on an ongoing basis and all such transactions relating to executive officers and directors must be approved by our audit committee, as discussed below.

Compensation Committee Interlocks and Insider Participation

None of the members of our compensation committee is or has in the past served as one of our officers or employees. None of our executive officers currently serves, or in the past year has served, as a member of a board of directors or compensation committee of any entity that has one or more executive officers serving on our board of directors or compensation committee.

Corporate Governance Guidelines

Our board has adopted written Corporate Governance Guidelines to ensure that the board will have the necessary authority and practices in place to review and evaluate our business operations as needed and to make decisions that are independent of our management. The guidelines are also intended to align the interests of directors and management with those of our stockholders. The Corporate Governance Guidelines set forth the practices the board intends to follow with respect to board composition and selection, board meetings and involvement of senior management, Chief Executive Officer performance evaluations and succession planning, and board committees and compensation. The nominating and corporate governance committee assists the board in implementing and adhering to the Corporate Governance Guidelines. The Corporate Governance Guidelines are reviewed at least annually by the nominating and corporate governance committee, and changes are recommended to our board of directors as warranted.

Code of Business Conduct and Ethics

We believe that our corporate governance initiatives comply with the Sarbanes-Oxley Act and the rules and regulations of the SEC adopted thereunder. In addition, we believe our corporate governance initiatives comply

with the rules of the NYSE. Our board of directors will continue to evaluate our corporate governance principles and policies.

Our board of directors has adopted a Code of Business Conduct and Ethics that applies to each of our directors, officers and employees. The code addresses various topics, including:

- compliance with laws, rules and regulations;
- confidentiality;
- conflicts of interest;
- corporate opportunities;
- competition and fair dealing;
- payments or gifts from others;
- health and safety;
- insider trading;
- protection and proper use of company assets;
- record keeping; and
- giving and accepting gifts.

Our board of directors has also adopted a Code of Ethics for Senior Financial Officers applicable to our Chief Executive Officer and Chief Financial Officer as well as other key management employees addressing ethical issues. The Code of Business Conduct and the Code of Ethics for Senior Financial Officers are each posted on our website ir.invitae.com. The Code of Business Conduct and the Code of Ethics for Senior Financial Officers can only be amended by the approval of a majority of our board of directors. Any waiver to the Code of Business Conduct and Ethics for an executive officer or director or any waiver of the Code of Ethics for Senior Financial Officers may only be granted by our board of directors or our nominating and corporate governance committee and must be timely disclosed as required by applicable law. We have implemented whistleblower procedures that establish formal protocols for receiving and handling complaints from employees. Any concerns regarding accounting or auditing matters reported under these procedures will be communicated promptly to our audit committee.

To date, there have been no waivers under our Code of Business Conduct or Code of Ethics for Senior Financial Officers. We intend to disclose future amendments to certain provisions of these codes or waivers of such codes granted to executive officers and directors on our website at ir.invitae.com within four business days following the date of such amendment or waiver.

Corporate Governance Materials

Our Corporate Governance Guidelines, Code of Business Conduct and Ethics Code of Ethics for Senior Financial Officers, charters for each of the audit, compensation and nominating and corporate governance committees and other corporate governance documents, are posted on the investor relations section of our website at ir.invitae.com under the heading “Governance — Corporate documents.” In addition, stockholders may obtain a print copy of these documents by writing to Secretary, Invitae Corporation, 1400 16th Street, San Francisco, California 94103.

Certain Relationships and Related Transactions

In addition to the compensation arrangements of our directors and named executive officers discussed elsewhere in this Proxy Statement, the following is a description of transactions since January 1, 2017 to which

we have been or will be a party, and in which the amount involved exceeded or will exceed \$120,000 and in which any of our directors, executive officers, beneficial holders of more than 5% of our capital stock, or entities affiliated with, or immediate family members of, any of the foregoing, had or will have a direct or indirect material interest.

Indemnification Agreements

We have entered into indemnification agreements with our directors and executive officers. These agreements require us to indemnify these individuals to the fullest extent permitted under Delaware law against liabilities that may arise by reason of their service to us, and to advance expenses incurred as a result of any proceeding against them as to which they could be indemnified.

Related Party Transaction Approval

We have adopted a written policy that our executive officers, directors, holders of more than 5% of any class of our voting securities, and any member of the immediate family of and any entity affiliated with any of the foregoing persons, are not permitted to enter into a related party transaction with us without the prior consent of our audit committee. Any request for us to enter into a transaction with an executive officer, director, principal stockholder, or any of their immediate family members or affiliates, in which the amount involved exceeds \$120,000 must first be presented to our audit committee for review, consideration and approval. In approving or rejecting any such proposal, our audit committee will approve only those transactions it determines are fair to and in the best interests of the Company, after considering the relevant facts and circumstances available and deemed relevant to our audit committee, including, but not limited to, whether the transaction is on terms no less favorable than terms generally available to an unaffiliated third party under the same or similar circumstances and the extent of the related party's interest in the transaction.

2017 Director Compensation

The following table shows certain information with respect to the compensation of our non-employee directors during the fiscal year ended December 31, 2017:

Name	Fees earned or paid in cash (\$)	Option awards (\$) ⁽¹⁾	Total (\$)
Eric Aguiar, M.D.	50,000	71,685 (2)	121,685
Geoffrey S. Crouse	50,000	71,685 (2)	121,685
Christine M. Gorjanc	45,000	71,685 (2)	116,685

(1) Amounts in this column represent the aggregate fair value of the option awards computed as of the grant date of each award in accordance with Financial Accounting Standards Board Accounting Standards Codification Topic 718 (FASB ASC 718) for financial reporting purposes, rather than amounts paid to or realized by the named individual. See the notes to our consolidated financial statements in our Annual Report on Form 10-K for the year ended December 31, 2017 for a discussion of assumptions made in determining the grant date fair value and compensation expense of our stock options. There can be no assurance that option awards will be exercised (in which case no value will be realized by the individual) or that the value on exercise will approximate the fair value as computed in accordance with ASC 718.

(2) On May 2, 2017, we granted to each of Dr. Aguiar, Mr. Crouse and Ms. Gorjanc an option to purchase 10,000 shares of our common stock, vesting in equal monthly installments over one year, commencing on the grant date. The option grants have an exercise price of \$11.13 per share.

The following table sets forth the aggregate number of shares of common stock underlying option awards outstanding at December 31, 2017:

<u>Name</u>	<u>Number of shares</u>
Eric Aguiar, M.D.	30,000
Geoffrey S. Crouse	32,500
Christine M. Gorjanc	35,000

Standard Compensation Arrangements

Employee directors do not receive any compensation for service as a member of our board of directors. We reimburse our non-employee directors for their reasonable out-of-pocket costs and travel expenses in connection with their attendance at board and committee meetings.

Initial Equity Grants. Each non-employee director who joins our board of directors will receive an option to purchase 20,000 shares of our common stock, with one quarter of the shares subject to the option vesting on the first anniversary of the director's appointment or election to our board of directors and 1/48th of the shares subject to the option vesting on a monthly basis over the following three years, subject to the director's continuous service as a member of our board of directors. The exercise price of these options will be the fair market value on the date of grant. If still vesting, the options will accelerate in full upon a change in control of our company.

Annual Equity Grants. Each non-employee director with at least 12 months of continuous service as of the date of each annual meeting of our stockholders is entitled to an annual award of an option to purchase 10,000 shares of our common stock. Non-employee directors with less than 12 months of continuous service as of such annual meeting are also entitled to such an option, but with the amount of shares pro-rated to reflect their applicable portion of a full year of service. The exercise price of annual equity awards will be the fair market value on the date of grant. If still vesting, the annual equity awards will accelerate in full upon a change in control of our company.

Cash Compensation. Each non-employee director is entitled to receive annual cash compensation for their service on our board of directors, payable quarterly in arrears. Annual compensation is pro-rated for non-employee directors with less than 12 months of service. Unpaid retainers are payable in full for the current fiscal year in the event of a change in control of our company during that fiscal year. The annual retainer for service on our board of directors is \$30,000. Directors, other than committee chairs, receive an annual fee of \$5,000 for service on each of the committees of our board of directors on which they serve. The chairperson of the Audit Committee receives an annual fee of \$15,000 and the chairpersons of the Compensation Committee and the Nominating and Corporate Governance Committee each receive an annual fee of \$10,000.

Executive Compensation

The following table sets forth information concerning the total compensation of the following persons, whom we refer to as our named executive officers: (i) all individuals who served as our principal executive officer or acted in a similar capacity during the fiscal year ended December 31, 2017 and (ii) the two other most highly compensated executive officers who were serving at fiscal year-end.

2017 Summary Compensation Table

Name and principal position	Fiscal year	Salary (\$)	Option awards (\$) ⁽¹⁾	Stock awards (\$)	Total (\$)
Randal W. Scott, Ph.D. ⁽²⁾	2017	250,000	71,685 ⁽³⁾	—	321,685
<i>Former Chief Executive Officer</i>	2016	250,000	—	—	250,000
Sean E. George, Ph.D. ⁽⁴⁾	2017	479,077	1,485,949 ⁽⁵⁾	1,598,818 ⁽⁶⁾	3,563,844
<i>President and Chief Executive Officer</i>	2016	330,000	500,212 ⁽⁷⁾	—	880,212
Shelly D. Guyer ⁽⁸⁾	2017	220,673	589,523 ⁽⁹⁾	413,100 ⁽¹⁰⁾	1,223,296
<i>Chief Financial Officer</i>	—	—	—	—	—
Lee Bendekgey ⁽¹¹⁾	2017	409,616	—	506,291 ⁽⁶⁾	915,907
<i>Chief Operating Officer</i>	2016	300,000	500,212 ⁽⁷⁾	—	800,212

- (1) The amounts in this column represent the aggregate fair value of the option awards computed as of the grant date of each award in accordance with FASB ASC Topic 718 for financial reporting purposes, rather than amounts paid to or realized by the individual. See the notes to our consolidated financial statements in our annual report on Form 10-K for the year ended December 31, 2017 for a discussion of assumptions made in determining the grant date fair value and compensation expense of our stock options. There can be no assurance that option awards will be exercised (in which case no value will be realized by the individual) or that the value on exercise will approximate the fair value as computed in accordance with ASC 718.
- (2) Dr. Scott served as Chief Executive Officer until his appointment as Executive Chairman on January 9, 2017.
- (3) On May 2, 2017, we granted Dr. Scott an option to purchase 10,000 shares of our common stock at an exercise price of \$11.13 per share. The option vests in 12 equal monthly installments over the year following the grant date.
- (4) Dr. George served as President and Chief Operating Officer prior to being appointed President and Chief Executive Officer on January 9, 2017.
- (5) On February 3, 2017, we granted Dr. George an option to purchase 252,648 shares of our common stock at an exercise price of \$9.06 per share. The options vest as to 25% of the shares on the one-year anniversary of the grant date and 1/48th of the shares vest each month thereafter over the remaining three years.
- (6) On February 3, 2017, we granted each of Dr. George and Mr. Bendekgey restricted stock unit (“RSU”) awards that may be settled in shares of our common stock of 176,470 and 55,882 shares, respectively. The RSU awards vest in three equal installments, with 1/3rd of the total awards vesting on each of May 15, 2018, 2019 and 2020, subject to continued employment.
- (7) On March 31, 2016, we granted each of Dr. George and Mr. Bendekgey an option to purchase 70,000 shares of our common stock at an exercise price of \$10.23 per share. The options vest as to 25% of the shares on the one-year anniversary of the grant date and 1/48th of the shares vest each month thereafter over the remaining three years.
- (8) Ms. Guyer was appointed Chief Financial Officer on June 12, 2017.
- (9) On June 12, 2017, we granted Ms. Guyer options to purchase a total of 100,000 shares of our common stock at an exercise price of \$9.18 per share. The options vest as to 25% of the shares on the one-year anniversary of the grant date and 1/48th of the shares vest each month thereafter over the remaining three years.
- (10) On June 12, 2017, we granted Ms. Guyer an RSU award of 45,000 shares. The RSU award vests in three equal installments, with 1/3rd of the total award vesting on each of May 15, 2018, 2019 and 2020, subject to continued employment.

(11) Mr. Bendekgey served as Chief Financial Officer prior to being appointed Chief Operating Officer on June 12, 2017.

Salary

In February 2017, the independent members of the board of directors, on the recommendation of the compensation committee, approved increases in the annual base salaries of the named executive officers to the following amounts: Dr. George, \$500,000 and Mr. Bendekgey, \$425,000.

Equity Incentive Awards

In February 2017, the independent members of the board of directors, on the recommendation of the compensation committee, approved equity awards for certain of our named executive officers under our 2015 Stock Incentive Plan (the “2015 Stock Plan”), in the following types and amounts: Dr. George, an option to purchase 252,648 shares of common stock at an exercise price of \$9.06 per share, the fair market value on the date of grant, and an RSU award for 176,470 shares of common stock; and Mr. Bendekgey, an RSU award of 55,882 shares. The option vests over a four-year period, becoming exercisable as to 25% of the shares on the first anniversary of the grant date with the remaining shares vesting as to 1/48th of the shares each full month thereafter over the following 36 months. The option has a term of ten years, subject to earlier termination in specified events related to termination of employment. The RSU awards vest in three equal installments, with 1/3rd of the total awards vesting on each of May 15, 2018, 2019 and 2020, subject to continued employment.

In February 2016, the board of directors approved the grant of performance-based restricted stock unit (“PRSU”) awards under the 2015 Stock Plan to certain employees, which included Dr. George and Mr. Bendekgey. The PRSUs could be earned based on the achievement of certain performance conditions measured over a period of approximately 12 months. In February 2017, fully vested RSUs were awarded upon the audit committee’s determination of the level of achievement. Dr. George and Mr. Bendekgey each received 5,000 shares of common stock in connection with the immediate vesting of these RSUs.

From time to time, our executive officers and directors may enter into written trading plans pursuant to Rule 10b5-1 of the Exchange Act.

2017 Outstanding Equity Awards at Fiscal Year-End

The following table presents information regarding outstanding equity awards held by our named executive officers as of December 31, 2017:

Name	Grant date	Option awards				Stock awards	
		Number of securities underlying unexercised options (exercisable) (#)	Number of securities underlying unexercised options (unexercisable) (#)	Option exercise price (\$/share)	Option expiration date	Number of shares or units of stock that have not vested (#)	Market value of shares or units of stock that have not vested (\$)
Randal W. Scott, Ph.D.	5-2-17	5,833	4,167	11.13	5-2-27(1)	—	—
Sean E. George, Ph.D.	11-16-12	33,333	—	1.26	11-16-22 (2)	—	—
	2-28-14	47,916	2,084	3.42	2-28-24 (3)	—	—
	10-15-14	39,583	10,417	8.70	10-15-24 (3)	—	—
	8-4-15	105,000	75,000	9.90	8-4-25 (3)	—	—
	3-31-16	30,625	39,375	10.23	3-31-26 (3)	—	—
	2-3-17	—	252,648	9.06	2-3-27 (3)	—	—
	2-3-17	—	—	—	—	176,470 (5)	1,602,348
Shelly D. Guyer	6-12-17	—	56,000	9.18	6-12-27 (4)	—	—
	6-12-17	—	44,000	9.18	6-12-27 (4)	—	—
	6-12-17	—	—	—	—	45,000 (5)	408,600
Lee Bendekgey	10-3-13	55,000	—	2.82	10-3-23 (3)	—	—
	2-28-14	7,986	347	3.42	2-28-24 (3)	—	—
	10-15-14	19,791	5,209	8.70	10-15-24 (3)	—	—
	8-4-15	40,833	29,167	9.90	8-4-25 (3)	—	—
	3-31-16	30,625	39,375	10.23	3-31-26 (3)	—	—
	2-3-17	—	—	—	—	55,882 (4)	507,409

- (1) The options vest in 12 equal monthly installments over the year following the grant date.
- (2) The options vest as to 25% of the shares on the one-year anniversary of the vesting start date of August 31, 2012 and 1/48th of the shares vest each month thereafter over the remaining three years.
- (3) The options vest as to 25% of the shares on the one-year anniversary of the grant date and 1/48th of the shares vest each month thereafter over the remaining three years.
- (4) The options vest as to 25% of the shares on the one-year anniversary of the vesting start date of June 12, 2017 and 1/48th of the shares vest each month thereafter over the remaining three years.
- (5) The RSU awards vest in three equal installments, with 1/3rd of the total awards vesting on each of May 15, 2018, 2019 and 2020, subject to continued employment.

Equity Compensation Plan Information

The following table summarizes the number of shares of common stock to be issued upon the exercise of outstanding options, warrants and rights granted to our employees, consultants and directors, as well as the number of shares of common stock remaining available for future issuance under our equity compensation plans as of December 31, 2017.

	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted average exercise price of outstanding options, warrants and rights (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column(a))
Equity compensation plans approved by security holders	4,114,874 (1)	(\$)8.51	1,119,792 (2)
Equity compensation plans not approved by security holders	—	—	—
Total	4,114,874	8.51	1,119,792

- (1) Includes 974,596 shares issuable upon exercise of options outstanding under our 2010 Stock Incentive Plan (the “2010 Stock Plan”) and 3,140,278 shares issuable upon exercise of options and the settlement of RSUs and PRSUs outstanding under our 2015 Stock Plan, which became effective in connection with our initial public offering in February 2015. Shares subject to outstanding awards under our 2010 Stock Plan that are subsequently forfeited or terminated for any reason before being exercised or settled, including shares subject to vesting restrictions that are subsequently forfeited, will become available for awards under our 2015 Stock Plan.
- (2) Represents shares available for future issuance under our 2015 Stock Plan as of December 31, 2017. No shares of common stock are available for future issuance under our 2010 Stock Plan other than to satisfy the exercise of stock options granted under that plan prior to its termination upon the closing of our initial public offering in February 2015.

Security Ownership of Certain Beneficial Owners and Management

The following table sets forth certain information as of the Record Date as to shares of our common stock beneficially owned by: (1) each person who is known by us to own beneficially more than 5% of our common stock, (2) each of our named executive officers listed in the summary compensation table, (3) each of our directors and director nominee and (4) all of our current directors and executive officers as a group.

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 persons and entities named in the table below have sole voting and investment power with respect to all shares of common stock that they beneficially own, subject to applicable community property laws.

In computing the number of shares of common stock beneficially owned by a person and the percentage ownership of that person, we deemed outstanding shares of common stock subject to options held by that person that are currently exercisable or exercisable within 60 days after March 19, 2018, the Record Date for the Annual Meeting. We did not deem these shares outstanding, however, for the purpose of computing the percentage ownership of any other person.

Except as otherwise set forth in footnotes to the table below, the address of each of the persons listed below is c/o Invitae Corporation, 1400 16th Street, San Francisco, California 94103.

Name and address of beneficial owner	Number of shares beneficially owned	Percentage of shares beneficially owned
Named Executive Officers and Directors:		
Sean E. George, Ph.D. (1)	666,456	1.2%
Shelly D. Guyer (2)	14,985	*
Lee Bendekgey (3)	191,821	*
Eric Aguiar, M.D. (4)	40,000	*
Geoffrey S. Crouse (5)	66,759	*
Christine M. Gorjanc (6)	27,500	*
Randal W. Scott, Ph.D. (7)	3,516,225	6.5%
All current executive officers and directors as a group (8 persons) (8)	4,650,856	8.7%
5% Stockholders:		
Entities Affiliated with Baker Brothers Advisors, L.P. (9)	7,288,300	13.6%
Entities Affiliated with Wellington Management Group LLP. (10)	4,082,365	7.6%

* Represents beneficial ownership of less than 1%.

- (1) Includes options to purchase 367,284 shares of common stock exercisable within 60 days of March 19, 2018 and 58,764 RSUs vesting within 60 days of March 19, 2018.

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- (2) Includes 14,985 RSUs vesting within 60 days of March 19, 2018.
 - (3) Includes options to purchase 170,311 shares of common stock exercisable within 60 days of March 19, 2018 and 18,608 RSUs vesting within 60 days of March 19, 2018.
 - (4) Includes options to purchase 30,000 shares of common stock exercisable within 60 days of March 19, 2018.
 - (5) Includes options to purchase 32,500 shares of common stock exercisable within 60 days of March 19, 2018.
 - (6) Includes options to purchase 27,500 shares of common stock exercisable within 60 days of March 19, 2018.
 - (7) Includes options to purchase 10,000 shares of common stock exercisable within 60 days of March 19, 2018.
 - (8) Includes options to purchase an aggregate of 742,803 shares of common stock exercisable within 60 days of March 19, 2018 and 111,945 RSUs vesting within 60 days of March 19, 2018.
 - (9) According to Amendment No. 2 to Schedule 13D filed jointly on August 2, 2017, by Baker Bros. Advisors LP (“Adviser”), Baker Bros. Advisors (GP) LLC (“Adviser GP”), Julian C. Baker and Felix J. Baker. Adviser has sole voting and dispositive power with respect to 7,288,300 shares held by the following limited partnerships and funds (collectively, the “Funds”): Baker Brothers Life Sciences, L.P. (“Life Sciences”); 667, L.P. (“667”); and 14159, L.P. (“14159”). Of the 7,288,300 shares, 6,480,668 shares are held by Life Sciences; 734,261 shares are held by 667; and 73,371 shares are held by 14159, L.P. (“14159”). Adviser is the investment advisor of the Funds and has voting and investment power with respect to the shares of common stock held by the Funds. The Adviser GP, Felix J. Baker and Julian C. Baker as principals of the Adviser GP, and the Adviser may be deemed to be beneficial owners of securities of the Company directly held by the Funds, and may be deemed to have the power to vote or direct the vote of and the power to dispose or direct the disposition of such securities. The information in the table does not include an aggregate of 3,458,823 shares of Series A Convertible Preferred Stock (the “Convertible Preferred Stock”) held by 667 (349,760 shares) and Life Sciences (3,109,063 shares), which shares are only convertible to the extent that after giving effect to such conversion the holders thereof, together with their affiliates and any member of a Section 13(d) group, would beneficially own, for purposes of Rule 13d-3 under the Exchange Act no more than 4.99% of the outstanding shares of the Company’s common stock (the “Beneficial Ownership Limitation”). As a result of the Beneficial Ownership Limitation, the number of shares that may be issued upon conversion of shares of Convertible Preferred by the above holders may change depending upon changes in the outstanding shares of the Company’s common stock. The Beneficial Ownership Limitation may be increased or decreased to any other percentage at the holder’s election upon 61 days’ notice delivered to the Company. Due to the Beneficial Ownership Limitation, no shares of Convertible Preferred are presently convertible by the holders. The principal address for the entities affiliated with Adviser is 860 Washington Street, New York NY 10014.
 - (10) According to Amendment No. 3 to Schedule 13G filed jointly on February 8, 2018 by Wellington Management Group LLP (“Wellington”), Wellington Group Holdings LLP (“Holdings”), Wellington Investment Advisors Holdings LLP (“Advisors”) and Wellington Management Company LLP (“Management”), Wellington, Holding and Advisors have shared voting power with respect to 3,602,533 shares and shared dispositive power with respect to 4,082,365 shares, and Management has shared voting power with respect to 3,525,320 shares and shared dispositive power with respect to 3,659,140 shares, owned by clients of one or more of the following investment advisers (the “Wellington Investment Advisers”): Management, Wellington Management Canada LLC, Wellington Management Singapore Pte Ltd., Wellington Management Hong Kong Ltd, Wellington Management International Ltd, Wellington Management Japan Pte Ltd and Wellington Management Australia Pty Ltd. Wellington is the parent of Holdings, Advisors, Management and the Wellington Investment Advisers. Advisors controls directly, or indirectly through Wellington Management Global Holdings, Ltd., the Wellington Investment Advisers. The address of for entities affiliated with Wellington is c/o Wellington Management Company LLP, 280 Congress Street, Boston, MA 02210.

Report of the Audit Committee

The audit committee operates under a written charter adopted by the board of directors. A link to the audit committee charter is available on our website at www.invitae.com. All members of the audit committee meet the independence standards established by the NYSE.

In performing its functions, the audit committee acts in an oversight capacity and necessarily relies on the work and assurances of the Company's management, which has the primary responsibility for financial statements and reports, and of the independent registered public accounting firm, who, in their report, express an opinion on the conformity of the Company's annual financial statements with accounting principles generally accepted in the United States. It is not the duty of the audit committee to plan or conduct audits, to determine that the Company's financial statements are complete and accurate and are in accordance with generally accepted accounting principles, or to assess or determine the effectiveness of the Company's internal control over financial reporting.

Within this framework, the audit committee has reviewed and discussed with management the Company's audited financial statements as of and for the year ended December 31, 2017. The audit committee has also discussed with the independent registered public accounting firm, Ernst & Young LLP, the matters required to be discussed by AICPA, *Professional Standards*, Vol. 1, AU Section 380, as adopted by the Public Company Accounting Oversight Board in Rule 3200T. In addition, the audit committee has received the written disclosures and the letter from the independent registered public accounting firm required by applicable requirements of the Public Company Accounting Oversight Board regarding the independent registered public accounting firm's communications with the audit committee concerning independence, and has discussed with the independent registered public accounting firm the independent registered public accounting firm's independence.

Based upon these reviews and discussions, the audit committee recommended to the Board of Directors that the audited financial statements be included in the Company's Annual Report on Form 10-K for the year ended December 31, 2017.

Audit Committee

Christine M. Gorjanc, Chair
Eric Aguiar, M.D.
Geoffrey S. Crouse

PROPOSAL 2

RATIFICATION OF APPOINTMENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The audit committee has appointed Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2018. Ernst & Young LLP audited our financial statements in 2017. Representatives of Ernst & Young LLP are expected to be present at the Annual Meeting. They will have an opportunity to make a statement, if they desire to do so, and will be available to respond to appropriate questions.

Principal Accountant Fees and Services

The following table sets forth the fees billed by Ernst & Young LLP for audit and other services rendered:

	Year ended December 31,	
	2017	2016
	(In thousands)	
Audit Fees (1)	\$2,001	\$911
Audit-related Fees	—	—
Tax Fees	—	—
All Other Fees (2)	2	2
	<u>\$2,003</u>	<u>\$913</u>

- (1) Audit fees include fees and out-of-pocket expenses, whether or not yet invoiced, for professional services provided in connection with the audit of our annual financial statements and review of our quarterly financial statements, as well as services in connection with regulatory filings or engagements.
- (2) All other fees consist of the cost of our subscription to an accounting research tool provided by Ernst & Young LLP.

Pre-approval Policies and Procedures

In connection with our initial public offering, our audit committee established a policy to pre-approve all audit and permissible non-audit services provided by our independent registered public accounting firm. All of the services provided were pre-approved to the extent required. During the approval process, the audit committee considers the impact of the types of services and the related fees on the independence of the independent registered public accounting firm. The services and fees must be deemed compatible with the maintenance of that firm's independence, including compliance with rules and regulations of the SEC. Throughout the year, the audit committee will review any revisions to the estimates of audit and non-audit fees initially approved.

Required Vote

Ratification will require the affirmative vote of a majority of the shares present and entitled to vote at the Annual Meeting. Stockholder ratification of the selection of Ernst & Young LLP as our independent registered public accounting firm is not required by our Bylaws or otherwise. However, the board of directors is submitting the selection of Ernst & Young LLP to the stockholders for ratification as a matter of good corporate practice. If the stockholders fail to ratify the selection, the audit committee will reconsider whether or not to retain that firm. Even if the selection is ratified, the audit committee in its discretion may direct the appointment of a different independent registered public accounting firm at any time during the year if the audit committee determines that such a change would be in the best interests of our company and our stockholders.

The Board of Directors Recommends a Vote "FOR" Ratification of Ernst & Young LLP as our Independent Registered Public Accounting Firm.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Securities Exchange Act of 1934 requires our executive officers and directors, and persons who own more than 10% of a registered class of our equity securities, to file reports of ownership on Forms 3, 4 and 5 with the SEC. These persons are required to furnish us with copies of all Forms 3, 4 and 5 they file. Based solely on our review of the copies of such forms we have received and written representations from certain reporting persons that they filed all required reports, we believe that all of our executive officers, directors and greater than 10% stockholders complied on a timely basis with all Section 16(a) filing requirements applicable to them with respect to transactions during 2017.

Householding of Proxy Materials

To reduce the expense of delivering duplicate proxy materials to stockholders who may have more than one account holding our stock but who share the same address, we have adopted a procedure approved by the SEC called “householding.” Under this procedure, certain stockholders of record who have the same address and last name will receive only one copy of our proxy materials until such time as one or more of these stockholders notifies us that they want to receive separate copies. This procedure reduces duplicate mailings and saves printing costs and postage fees, as well as natural resources. Stockholders who participate in householding will continue to have access to and utilize separate proxy voting instructions.

If you receive a single set of proxy materials as a result of householding, and you would like to have separate copies of our annual report or proxy statement mailed to you, please submit a request to: Secretary, Invitae Corporation, 1400 16th Street, San Francisco, California 94103, or call (415) 374-7782, and we will promptly send you what you have requested. You can also contact our Secretary at the above address or telephone number if you received multiple copies of the annual meeting materials and would prefer to receive a single copy in the future, or if you would like to opt out of householding for future mailings.

Stockholder Proposals for the 2019 Annual Meeting

If a stockholder wishes to present a proposal to be considered for inclusion in our proxy statement for the 2019 Annual Meeting of Stockholders, the proponent and the proposal must comply with the proxy proposal submission rules of the SEC. One of the requirements is that the proposal be received by our Secretary no later than December 6, 2018. Proposals we receive after that date will not be included in the proxy statement. We urge stockholders to submit proposals by Certified Mail – Return Receipt Requested.

A stockholder proposal not included in our proxy statement for the 2019 Annual Meeting will not be eligible for presentation at the meeting unless the stockholder gives timely notice of the proposal in writing to our Secretary at our principal executive offices and otherwise complies with the provisions of our Bylaws. To be timely, our Bylaws provide that we must have received the stockholder’s notice not more than 120 days nor less than 90 days prior to the first anniversary date of the preceding year’s annual meeting; however, if we have not held an annual meeting in the previous year or the date of the annual meeting is called for a date that is more than 30 days before or more than 60 days after the first anniversary date of the preceding year’s annual meeting, we must have received the stockholder’s notice not later than the close of business on the later of the 90th day prior to the date of the scheduled annual meeting or the 10th day following the earlier of the day on which notice of the annual meeting date was mailed or the day of the first public announcement of the annual meeting date. An adjournment or postponement of an annual meeting will not commence a new time period or extend any time period for the giving of the stockholder’s notice described above. The stockholder’s notice must set forth, as to each proposed matter, the information required by our Bylaws. The presiding officer of the meeting may refuse to acknowledge any matter not made in compliance with the foregoing procedure.

Other Matters

Your board of directors does not know of any other business that will be presented at the Annual Meeting. If any other business is properly brought before the Annual Meeting, the proxy holders will vote in accordance with their judgment unless you direct them otherwise. Whether or not you intend to attend the Annual Meeting, we urge you to vote by telephone, the Internet, or by signing and mailing the proxy or voting instruction form promptly.

By Order of the Board of Directors

A handwritten signature in black ink, appearing to read "Lee Bendekgey", written in a cursive style.

Lee Bendekgey
Chief Operating Officer and Secretary

San Francisco, California
April 5, 2018

Our Annual Report on Form 10-K for the year ended December 31, 2017 has been mailed with this Proxy Statement. We will provide copies of exhibits to our Annual Report on Form 10-K, but will charge a reasonable fee per page to any requesting stockholder. Stockholders may make such requests in writing to Secretary, Invitae Corporation, 1400 16th Street, San Francisco, California 94103. The request must include a representation by the stockholder that, as of March 19, 2018, the stockholder was entitled to vote at the Annual Meeting. Our Annual Report on Form 10-K and exhibits are also available at www.invitae.com.

ANNUAL MEETING OF STOCKHOLDERS OF
INVITAE CORPORATION

May 15, 2018

PROXY VOTING INSTRUCTIONS

INTERNET - Access "www.voteproxy.com" and follow the on-screen instructions or scan the QR code with your smartphone. Have your proxy card available when you access the web page.



TELEPHONE - Call toll-free 1 - 800 - P R O X I E S (1-800-776-9437) in the United States or 1-718-921-8500 from foreign countries from any touch-tone telephone and follow the instructions. Have your proxy card available when you call.

Vote online/phone until 11:59 PM EST the day before the meeting.

MAIL - Sign, date and mail your proxy card in the envelope provided as soon as possible.

IN PERSON - You may vote your shares in person by attending the Annual Meeting.

GO GREEN - e-Consent makes it easy to go paperless. With e-Consent, you can quickly access your proxy material, statements and other eligible documents online, while reducing costs, clutter and paper waste. Enroll today via www.astfinancial.com to enjoy online access.

COMPANY NUMBER	
ACCOUNT NUMBER	

NOTICE OF INTERNET AVAILABILITY OF PROXY MATERIAL:

The Notice of Meeting, proxy statement and proxy card are available at <http://www.astproxyportal.com/ast/19938>

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Please detach along perforated line and mail in the envelope provided IF you are not voting via telephone or the Internet.

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THE BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" THE ELECTION OF DIRECTOR AND "FOR" PROPOSAL 2.

PLEASE SIGN, DATE AND RETURN PROMPTLY IN THE ENCLOSED ENVELOPE. PLEASE MARK YOUR VOTE IN BLUE OR BLACK INK AS SHOWN HERE

1. The election as Class II director of the nominee listed below.

FOR THE NOMINEE

**WITHHOLD AUTHORITY
FOR THE NOMINEE**

NOMINEE:
Randal W. Scott

FOR AGAINST ABSTAIN

2. The ratification of Ernst & Young LLP as the independent registered public accounting firm for the fiscal year ending December 31, 2018.

In their discretion, the proxies are authorized to vote upon such other business as may properly come before the Annual Meeting. This proxy when properly executed will be voted as directed herein by the undersigned stockholder. **If no direction is made, this proxy will be voted FOR THE NOMINEE in Proposal 1 and FOR Proposal 2.**

To change the address on your account, please check the box at right and indicate your new address in the address space above. Please note that changes to the registered name(s) on the account may not be submitted via this method.

Signature of Stockholder Date:

Signature of Stockholder Date:

Note: Please sign exactly as your name or names appear on this Proxy. When shares are held jointly, each holder should sign. When signing as executor, administrator, attorney, trustee or guardian, please give full title as such. If the signer is a corporation, please sign full corporate name by duly authorized officer, giving full title as such. If signer is a partnership, please sign in partnership name by authorized person.

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INVITAE CORPORATION

1400 16th Street

San Francisco, CA 94103

Proxy for Annual Meeting of Stockholders on May 15, 2018

Solicited on Behalf of the Board of Directors

The undersigned hereby appoints Lee Bendekgey and Thomas Brida, and each of them, with full power of substitution and power to act alone, as proxies to vote all the shares of Common Stock which the undersigned would be entitled to vote if personally present and acting at the Annual Meeting of Stockholders of Invitae Corporation, to be held at 9:00 a.m., Pacific Time, on May 15, 2018, at the Company's headquarters located at 1400 16th Street, San Francisco, CA 94103, and at any adjournments or postponements thereof, as follows:

(Continued and to be signed on the reverse side.)