

**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 Pursuant to § 240.14a-12

**Bionano Genomics, Inc.**

(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.

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- Fee paid previously with preliminary materials.
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Filing Party:

Date Filed:



BIONANO GENOMICS, INC.

9540 Towne Centre Drive, Suite 100  
San Diego, CA 92121



NOTICE OF ANNUAL MEETING OF STOCKHOLDERS

To Be Held On June 10, 2021

Dear Stockholders:

You are cordially invited to attend the 2021 Annual Meeting of Stockholders (the "Annual Meeting") of Bionano Genomics, Inc., a Delaware corporation (the "Company"), to be held on Thursday, June 10, 2021, at 10:00 a.m. Pacific Time. In light of the COVID-19 pandemic, to support the health and well-being of our stockholders, employees and directors, and taking into account recent federal, state and local guidance, the Annual Meeting will be held in a virtual meeting format only, via live webcast on the Internet, with no physical in-person meeting. You will be able to attend and participate in the Annual Meeting online by visiting [www.virtualshareholdermeeting.com/BNGO2021](http://www.virtualshareholdermeeting.com/BNGO2021), where you will be able to listen to the meeting live, submit questions and vote. As always, we encourage you to vote your shares prior to the Annual Meeting.

You are being asked to vote on the following matters:

1. To elect the two nominees for Class III director named in the accompanying proxy statement, each to hold office until the 2024 Annual Meeting of Stockholders or until a successor is duly elected and qualified or until the director's earlier death, resignation or removal. We refer to this proposal as the "Director Election Proposal" or "Proposal 1."
2. To ratify the selection of BDO USA, LLP by the Audit Committee of the Board of Directors to serve as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2021. We refer to this proposal as the "Auditor Ratification Proposal" or "Proposal 2."
3. To conduct any other business properly brought before the meeting.

These items of business are more fully described in the Proxy Statement accompanying this Notice.

The Annual Meeting will be a completely virtual meeting of stockholders. To participate, vote or submit questions during the Annual Meeting via live webcast, please visit [www.virtualshareholdermeeting.com/BNGO2021](http://www.virtualshareholdermeeting.com/BNGO2021). **You will not be able to attend the Annual Meeting in person.**

The record date for the Annual Meeting is April 12, 2021. Only stockholders of record at the close of business on that date may vote at the meeting or any adjournment thereof.

**Important Notice Regarding the Availability of Proxy Materials for the Shareholders' Meeting to Be Held on Thursday, June 10, 2021 at 10:00 a.m., Pacific Time via live webcast at [www.virtualshareholdermeeting.com/BNGO2021](http://www.virtualshareholdermeeting.com/BNGO2021).**

The proxy statement and annual report to shareholders are available at [www.proxyvote.com](http://www.proxyvote.com).

By Order of the Board of Directors,

/s/ R. Erik Holmlin, Ph.D.

R. Erik Holmlin, Ph.D.

Secretary

San Diego, California  
April 27, 2021

**You are cordially invited to attend the virtual Annual Meeting. Whether or not you expect to attend the Annual Meeting, PLEASE VOTE YOUR SHARES. As an alternative to voting online at the Annual Meeting, you may vote via the internet, by telephone or, if you receive a paper proxy card by mailing the completed proxy card. Voting instructions are provided in the Notice of Internet Availability of Proxy Materials, or, if you receive a paper proxy card by mail, the instructions are printed on your proxy card.**

**Even if you have voted by proxy, you may still vote online at the Annual Meeting. Please note, however, that if your shares are held of record by a broker, bank or other agent and you wish to vote at the Annual Meeting, you must follow the instructions from such organization and will need to obtain a proxy issued in your name from that record holder.**

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**BIONANO GENOMICS, INC.  
9540 Towne Centre Drive, Suite 100  
San Diego, CA 92121**

**PROXY STATEMENT  
FOR THE 2021 ANNUAL MEETING OF STOCKHOLDERS**

**To Be Held on June 10, 2021**

Our Board of Directors (sometimes referred to as the “Board”) is soliciting your proxy to vote at the 2021 Annual Meeting of Stockholders (the “Annual Meeting”) of Bionano Genomics, Inc., a Delaware corporation (sometimes referred to as “we,” “us,” the “Company” or “Bionano”) to be held virtually, via live webcast at [www.virtualshareholdermeeting.com/BNGO2021](http://www.virtualshareholdermeeting.com/BNGO2021), on Thursday, June 10, 2021, at 10:00 a.m. Pacific Time, and any adjournment or postponement thereof. Stockholders attending the virtual meeting will be afforded the same rights and opportunities to participate as they would at an in-person meeting.

For the Annual Meeting, we have elected to furnish our proxy materials, including this proxy statement and our Annual Report on Form 10-K for the fiscal year ended December 31, 2020 (the “Annual Report”), to our stockholders primarily via the internet. On or about April 27, 2021, we expect to mail to our stockholders a *Notice of Internet Availability of Proxy Materials* (the “Notice”) that contains notice of the Annual Meeting and instructions on how to access our proxy materials on the internet, how to vote at the Annual Meeting and how to request printed copies of the proxy materials.

Only stockholders of record at the close of business on April 12, 2021 (the “Record Date”) will be entitled to vote at the Annual Meeting. On the Record Date, there were 278,794,489 shares of common stock outstanding and entitled to vote. A list of stockholders entitled to vote at the Annual Meeting will be available for examination by stockholders for any purpose germane to the Annual Meeting for ten days before the Annual Meeting during normal business hours at our address above. The stockholder list will also be available online during the Annual Meeting at [www.virtualshareholdermeeting.com/BNGO2021](http://www.virtualshareholdermeeting.com/BNGO2021).

The 2020 Annual Report, which contains consolidated financial statements as of and for the fiscal year ended December 31, 2020, accompanies this proxy statement. You also may obtain a copy of the Annual Report that was filed with the Securities and Exchange Commission (the “SEC”), without charge, by writing to our Secretary at 9540 Towne Centre Drive, Suite 100, San Diego, CA 92121, Attention: Secretary.

**Why did I receive a notice regarding the availability of proxy materials on the internet?**

Pursuant to rules adopted by the SEC, we have elected to provide access to our proxy materials over the internet. Accordingly, we have sent you the Notice because the Board is soliciting your proxy to vote at the Annual Meeting, including at any adjournments or postponements of the Annual Meeting. All stockholders will have the ability to access the proxy materials on the website referred to in the Notice or request to receive a printed set of the proxy materials. Instructions on how to access the proxy materials over the internet or to request a printed copy may be found in the Notice.

We intend to mail the Notice on or about April 27, 2021 to all stockholders of record entitled to vote at the Annual Meeting.

**Will I receive any other proxy materials by mail?**

We may send you a proxy card, along with a second Notice, on or after May 7, 2021.

**Where and when is the Annual Meeting?**

The Annual Meeting will be held on Thursday, June 10, 2021, at 10:00 a.m. Pacific Time. In light of the COVID-19 pandemic, to support the health and well-being of our stockholders, employees and directors, and taking into account recent federal, state and local guidance, the Annual Meeting will be held in a virtual meeting format only, via live webcast on the Internet, with no physical in-person meeting. A summary of the information you need to attend the Annual Meeting online is provided below:

- Any stockholder may listen to the Annual Meeting and participate live via webcast at [www.virtualshareholdermeeting.com/BNGO2021](http://www.virtualshareholdermeeting.com/BNGO2021). The webcast will begin at 10:00 a.m. Pacific Time.
- Stockholders may vote and submit questions during the Annual Meeting via live webcast.
- Stockholders may also submit questions no earlier than 15 minutes prior to the beginning of the webcast for the Annual Meeting by logging in to [www.virtualshareholdermeeting.com/BNGO2021](http://www.virtualshareholdermeeting.com/BNGO2021) and entering the 16-digit control number included on the Notice or proxy card.
- To enter the meeting, please have your 16-digit control number, which is available on your proxy card.
- If you do not have your 16-digit control number, you will be able to listen to the meeting only and you will not be able to vote or submit questions during the meeting.
- Instructions on how to connect to and participate in the Annual Meeting via the internet, including how to demonstrate proof of stock ownership, are posted at [www.virtualshareholdermeeting.com/BNGO2021](http://www.virtualshareholdermeeting.com/BNGO2021).

We recommend that you log in a few minutes before 10:00 a.m. Pacific Time to ensure you are logged in when the Annual Meeting starts. The information on our website is not incorporated by reference into this proxy statement or our Annual Report for fiscal year 2020.

If you plan to vote during the Annual Meeting, you may still do so even if you have already returned your proxy.

**What do I need in order to be able to participate in the Annual Meeting online?**

You will need the 16-digit control number included on your Notice or your proxy card in order to be able to vote your shares or submit questions during the Annual Meeting. If you do not have your 16-digit control number, you will be able to listen to the meeting only—you will not be able to vote or submit questions during the meeting. **Instructions on how to connect and participate in the Annual Meeting via the internet, including how to demonstrate proof of stock ownership, are posted at [www.virtualshareholdermeeting.com/BNGO2021](http://www.virtualshareholdermeeting.com/BNGO2021).**

**What if during the Annual Meeting I have technical difficulties or trouble accessing the live webcast of the Annual Meeting?**

On the day of the Annual Meeting, if you encounter any difficulties accessing the live webcast of the Annual Meeting or during the Annual Meeting, please call the technical support number that will be posted on the log-in page for our virtual Annual Meeting for assistance.

### **Who can vote at the Annual Meeting?**

Only stockholders of record at the close of business on April 12, 2021 will be entitled to vote at the Annual Meeting. On this record date, there were 278,794,489 shares of common stock outstanding and entitled to vote.

#### *Stockholder of Record: Shares Registered in Your Name*

If on April 12, 2021 your shares were registered directly in your name with our transfer agent, American Stock Transfer & Trust Company, LLC, then you are a stockholder of record. As a stockholder of record, you may vote at the Annual Meeting or vote by proxy. Whether or not you plan to attend the Annual Meeting virtually, we urge you to fill out and return the proxy card that may be mailed to you, or vote by proxy over the telephone or on the internet as instructed below to ensure your vote is counted.

#### *Beneficial Owner: Shares Registered in the Name of a Broker or Bank*

If on April 12, 2021 your shares were held, not in your name, but rather in an account at a brokerage firm, bank, dealer or other similar organization, then you are the beneficial owner of shares held in “street name” and the Notice is being forwarded to you by that organization. The organization holding your account is considered to be the stockholder of record for purposes of voting at the Annual Meeting. As a beneficial owner, you have the right to direct your broker, bank or other agent regarding how to vote the shares in your account. You are also invited to attend the Annual Meeting virtually. However, since you are not the stockholder of record, you may not vote your shares online during the Annual Meeting unless you request and obtain a valid proxy issued in your name from your broker, bank or other agent.

### **What am I voting on?**

There are two matters scheduled for a vote:

- Proposal 1: Election of the two Class III directors named herein, each to hold office until the 2024 annual meeting of stockholders or until a successor is duly elected and qualified or until the director’s earlier death, resignation or removal; and
- Proposal 2: Ratification of the selection of BDO USA, LLP by the Audit Committee of the Board of Directors (the “Audit Committee”) to serve as the Company’s independent registered public accounting firm for the fiscal year ending December 31, 2021.

### **What if another matter is properly brought before the Annual Meeting?**

The Board knows of no other matters that will be presented for consideration at the Annual Meeting. If any other matters are properly brought before the Annual Meeting, it is the intention of the persons named in the accompanying proxy to vote on those matters in accordance with their best judgment.

### **How do I vote?**

The procedures for voting are as follows:

#### *Stockholder of Record: Shares Registered in Your Name*

If you are a stockholder of record, you may vote at the Annual Meeting, vote by proxy over the telephone, vote by proxy through the internet or vote by proxy using a proxy card that you may request or that we may elect to deliver at a later time. Whether or not you plan to attend the Annual Meeting, we urge you to vote by proxy to ensure your vote is counted. You may still attend the Annual Meeting and vote online during the meeting even if you have already voted by proxy.

- **VOTE BY INTERNET:** To vote through the internet, go to [www.proxyvote.com](http://www.proxyvote.com) to complete an electronic proxy card. You will be asked to provide the company number and control number from the Notice. Your internet vote must be received by 11:59 p.m., Eastern Time on June 9, 2021 to be counted.
- **VOTE BY PHONE:** To vote over the telephone, dial toll-free 800-690-6903 using a touch-tone phone and follow the recorded instructions. You will be asked to provide the company number and control number from the Notice. Your telephone vote must be received by 11:59 p.m., Eastern Time on June 9, 2021 to be counted.

- **VOTE BY PROXY CARD:** To vote using the proxy card, simply complete, sign and date the proxy card that may be delivered to you and return it promptly in the envelope provided. If you return your signed proxy card to us before the Annual Meeting, we will vote your shares as you direct.
- **VOTE DURING MEETING:** To vote online during the Annual Meeting, follow the provided instructions to join the Annual Meeting at [www.virtualshareholdermeeting.com/BNGO2021](http://www.virtualshareholdermeeting.com/BNGO2021), starting at 10:00 a.m. Pacific Time on Thursday, June 10, 2021.

*Beneficial Owner: Shares Registered in the Name of Broker or Bank*

If you are a beneficial owner of shares registered in the name of your brokerage firm, bank, dealer or other agent, you should have received the Notice containing voting instructions from that organization rather than from Bionano. Simply follow the voting instructions in the Notice to ensure that your vote is counted. Alternatively, you may vote by telephone or over the internet as instructed by your broker or bank. To vote online during the Annual Meeting, you must obtain a valid proxy from your brokerage firm, bank, dealer or other agent. Follow the instructions from your broker, bank or other agent, or contact that organization to request a proxy form.

**Internet proxy voting may be provided to allow you to vote your shares online, with procedures designed to ensure the authenticity and correctness of your proxy vote instructions. However, please be aware that you must bear any costs associated with your internet access, such as usage charges from internet access providers and telephone companies.**

**Can I vote my shares by filling out and returning the Notice?**

No. The Notice identifies the items to be voted on at the Annual Meeting, but you cannot vote by marking the Notice and returning it. The Notice provides instructions on how to vote through the internet, by telephone, by using a printed proxy card or by submitting a ballot online during the Annual Meeting.

**How many votes do I have?**

On each matter to be voted upon, you have one vote for each share of common stock you own as of April 12, 2021.

**If I am a stockholder of record and I do not vote, or if I return a proxy card or otherwise vote without giving specific voting instructions, what happens?**

If you are a stockholder of record and do not vote by completing your proxy card, by telephone, through the internet or online during the Annual Meeting, your shares will not be voted.

If you return a signed and dated proxy card or otherwise vote without marking voting selections, your shares will be voted, as applicable, “For” the Director Election Proposal and “For” the Auditor Ratification Proposal. If any other matter is properly presented at the Annual Meeting, your proxyholder (one of the individuals named on your proxy card) will vote your shares using his or her best judgment.

**If I am a beneficial owner of shares held in street name and I do not provide my broker or bank with voting instructions, what happens?**

If you are a beneficial owner and do not instruct your brokerage firm, bank, dealer or other agent how to vote your shares, the question of whether your broker or nominee will still be able to vote your shares depends on whether the particular proposal is considered to be a routine matter under applicable rules. Brokers and nominees can use their discretion to vote uninstructed shares with respect to matters that are considered to be routine under applicable rules, but not with respect to non-routine matters. Under applicable rules and interpretations, non-routine matters are matters that may substantially affect the rights or privileges of stockholders, such as mergers, stockholder proposals, elections of directors (even if not contested), executive compensation (including any advisory stockholder votes on executive compensation and on the frequency of stockholder votes on executive compensation), and certain corporate governance proposals, even if management-supported. Accordingly, without your instructions your broker or nominee may not vote your shares on Proposal 1, but may vote your shares on Proposal 2.



***If you are a beneficial owner of shares held in street name, in order to ensure your shares are voted in the way you would prefer, you must provide voting instructions to your broker, bank or other agent by the deadline provided in the materials you receive from your broker, bank or other agent.***

**Who is paying for this proxy solicitation?**

Bionano will pay for the entire cost of soliciting proxies. In addition to these proxy materials, our directors and employees may also solicit proxies in person, by telephone, or by other means of communication. Directors and employees will not be paid any additional compensation for soliciting proxies. We may also reimburse brokerage firms, banks, dealers or other agents for the cost of forwarding proxy materials to beneficial owners. In addition, we have engaged Morrow Sodali LLC to assist in the solicitation of proxies and provide related advice and informational support, for a services fee and the reimbursement of customary disbursements, which are not expected to exceed \$10,000 in total. If you have any questions regarding this proxy statement, you may contact Morrow Sodali LLC at (203) 561 – 6945.

**What does it mean if I receive more than one Notice?**

If you receive more than one Notice, your shares may be registered in more than one name or in different accounts. Please follow the voting instructions on each Notice to ensure that all of your shares are voted.

**Can I change my vote after submitting my proxy?**

*Stockholder of Record: Shares Registered in Your Name*

Yes. You can revoke your proxy at any time before the final vote at the Annual Meeting. If you are the record holder of your shares, you may revoke your proxy in any one of the following ways:

- You may submit another properly completed proxy card with a later date.
- You may grant a subsequent proxy by telephone or through the internet.
- You may send a timely written notice that you are revoking your proxy to: Secretary of Bionano Genomics, Inc., 9540 Towne Centre Drive, Suite 100, San Diego, CA 92121.
- You may vote during the Annual Meeting which will be hosted via the Internet. Simply attending the Annual Meeting online will not, by itself, revoke your proxy. Even if you plan to attend the Annual Meeting online, we recommend that you also submit your proxy or voting instructions or vote by telephone or through the internet so that your vote will be counted if you later decide not to attend the Annual Meeting online.

Your most recent proxy card or telephone or internet proxy is the one that is counted.

*Beneficial Owner: Shares Registered in the Name of Broker or Bank*

If your shares are held by your brokerage firm, bank, dealer or other agent as a nominee, you should follow the instructions provided by your broker, bank or other agent.

**When are stockholder proposals and director nominations due for next year’s Annual Meeting?**

To be considered for inclusion in the Company’s proxy materials for next year’s annual meeting, your proposal must be submitted in writing by December 28, 2021, to: Secretary of Bionano Genomics, Inc., 9540 Towne Centre Drive, Suite 100, San Diego, CA 92121. If you wish to submit a proposal (including a director nomination) that is not to be included in the Company’s proxy materials for next year’s annual meeting, you must do so between February 10, 2022 and March 12, 2022. You are also advised to review the Company’s amended and restated bylaws, which contain additional requirements relating to advance notice of stockholder proposals and director nominations.

**What are “broker non-votes”?**

When a beneficial owner of shares held in “street name” does not give instructions to the brokerage firm, bank, dealer or other agent holding the shares as to how to vote on matters deemed to be non-routine under applicable rules, the broker or nominee cannot vote the shares. These unvoted shares are counted as “broker non-votes.”

*As a reminder, if you are a beneficial owner of shares held in street name, in order to ensure your shares are voted in the way you would prefer, you must provide voting instructions to your brokerage firm, bank, dealer or other agent by the deadline provided in the materials you receive from your brokerage firm, bank, dealer or other agent.*

#### **How are votes counted?**

Each share of our common stock you own entitles you to one vote. The Notice and proxy card indicates the number of shares of our common stock you owned at the close of business on April 12, 2021. The inspector of elections will count votes for the meeting and will separately count “For” and “Against” votes, abstentions, and broker non-votes.

With respect to Proposal 1, the Director Election Proposal, stockholders do not affirmatively vote “Against” nominees. Instead, if you do not want to elect a particular nominee, you should choose to “Withhold” a vote in favor of the applicable nominee for Director and the inspector of elections will count each “Withhold” for each nominee.

Abstentions will be counted towards the vote total for Proposal 2 and will have the same effect as “Against” votes. Abstentions will have no effect on Proposal 1. For Proposal 1 and Proposal 2, broker non-votes will be counted towards the presence of a quorum but will not be counted towards the vote total.

#### **How many votes are needed to approve each proposal?**

- For the Director Election Proposal, the two nominees receiving the most “For” votes from the holders of shares present by virtual attendance at the Annual Meeting or represented by proxy and entitled to vote on the matter will be elected. Only votes “For” or “Withhold” will affect the outcome. Broker non-votes, if any, will have no effect.
- The Auditor Ratification Proposal must receive “For” votes from the holders of a majority of shares present by virtual attendance at the Annual Meeting or represented by proxy and entitled to vote on the matter. If you “Abstain” from voting, it will have the same effect as an “Against” vote. Broker non-votes, if any, will have no effect.

#### **What is the quorum requirement?**

A quorum of stockholders is necessary to hold the Annual Meeting. A quorum will be present if stockholders holding at least a majority of the outstanding shares entitled to vote are present by virtual attendance at the Annual Meeting or represented by proxy. On the record date, there were 278,794,489 shares outstanding and entitled to vote. **Thus, the holders of 139,397,245 shares must be present by virtual attendance or represented by proxy at the Annual Meeting to have a quorum.**

Your shares will be counted towards the quorum only if you submit a valid proxy (or one is submitted on your behalf by your brokerage firm, bank, dealer or other agent) or if you vote online during the Annual Meeting. Abstentions and broker non-votes will be counted towards the quorum requirement. If there is no quorum, the holders of a majority of shares present by virtual attendance at the Annual Meeting or represented by proxy may adjourn the Annual Meeting to another date.

#### **How can I find out the results of the voting at the Annual Meeting?**

Preliminary voting results will be announced at the Annual Meeting. In addition, final voting results will be published in a current report on Form 8-K that we expect to file with the SEC within four business days after the Annual Meeting. If final voting results are not available to us in time to file a Form 8-K within four business days after the Annual Meeting, we intend to file a Form 8-K to publish preliminary results and, within four business days after the final results are known to us, file an additional Form 8-K to publish the final results.

## PROPOSAL 1

### ELECTION OF DIRECTORS

The Board is divided into three classes. Each class consists, as nearly as possible, of one-third of the total number of directors, and each class has a three-year term. Vacancies on the Board may be filled only by persons elected by a majority of the remaining directors. A director elected by the Board to fill a vacancy in a class, including vacancies created by an increase in the number of directors, shall serve for the remainder of the full term of that class and until the director's successor is duly elected and qualified.

The Board presently has seven members. There are two Class III directors whose term of office expire in 2021: Christopher Twomey and Yvonne Linney, Ph.D. Proxies may not be voted for a greater number of persons than the number of nominees named in this proxy statement. Mr. Twomey and Dr. Linney, each current directors of the Company, were each recommended for nomination to the Board at the Annual Meeting by the Nominating and Corporate Governance Committee of the Board. If elected at the Annual Meeting, each of these nominees would serve until the 2024 Annual Meeting of Stockholders and until his or her successor has been duly elected and qualified, or, if sooner, until the director's death, resignation or removal.

#### Vote Required

Directors are elected by a plurality of the votes of the holders of shares present by virtual attendance at the Annual Meeting or represented by proxy and entitled to vote on the election of directors. Accordingly, the two nominees receiving the highest number of affirmative votes will be elected. Shares represented by executed proxies will be voted, if authority to do so is not withheld, for the election of Mr. Twomey and Dr. Linney. If any nominee becomes unavailable for election as a result of an unexpected occurrence, shares that would have been voted for that nominee will instead be voted for the election of a substitute nominee proposed by the Company. Each of Mr. Twomey and Dr. Linney has agreed to serve if elected. The Company's management has no reason to believe that any nominee will be unable to serve.

#### NOMINEES

The Nominating and Corporate Governance Committee seeks to assemble a board that, as a whole, possesses the appropriate balance of professional and industry knowledge, financial expertise and high-level management experience necessary to oversee and direct the Company's business. To that end, the Nominating and Corporate Governance Committee has identified and evaluated nominees in the broader context of the Board's overall composition, with the goal of recruiting members who complement and strengthen the skills of other members and who also exhibit integrity, collegiality, sound business judgment and other qualities that the Nominating and Corporate Governance Committee views as critical to the effective functioning of the Board. To provide a mix of experience and perspective on the Board, the Nominating and Corporate Governance Committee also seeks to attain diversity and balance among directors of race, ethnicity, gender, age, geography, thought, viewpoints, and backgrounds. The brief biographies below include information, as of the date of this proxy statement, regarding the specific and particular experience, qualifications, attributes or skills of each director or nominee that led the Nominating and Corporate Governance Committee to recommend that nominee should he or she continue to serve on the Board. However, each of the members of the Nominating and Corporate Governance Committee may have a variety of reasons why he believes a particular person would be an appropriate nominee for the Board, and these views may differ from the views of other members.

The following table sets forth, for the Class III nominees and our other directors who will continue in office after the Annual Meeting, their ages and position/office held with us as of the date of this proxy statement:

Name	Age	Position/Office Held With Bionano
<b>Class I directors, whose terms will expire at the 2022 annual meeting of stockholders</b>		
R. Erik Holmlin, Ph.D.	53	President, Chief Executive Officer and Director
David L. Barker, Ph.D.(1)(2)	79	Chairman, Director
<b>Class II directors, whose terms will expire at the 2023 annual meeting of stockholders</b>		
Albert Luderer, Ph.D.(2)(3)	72	Director
Kristiina Vuori, M.D., Ph.D.(1)(3)	53	Director
Hannah Mamuszka	44	Director
<b>Class III directors for election at the Annual Meeting</b>		
Christopher Twomey(2)	61	Director
Yvonne Linney, Ph.D.	59	Director

(1) Member of the Compensation Committee of the Board (the "Compensation Committee")

(2) Member of the Audit Committee of the Board (the "Audit Committee")

(3) Member of the Nominating and Corporate Governance Committee of the Board (the "Nominating and Corporate Governance Committee")

Set forth below is biographical information for the nominees and each person whose term of office as a director will continue after the Annual Meeting. This includes information regarding each director's experience, qualifications, attributes or skills that led our Board to recommend them for board service.

#### **CLASS III DIRECTOR NOMINEES FOR ELECTION FOR A THREE-YEAR TERM EXPIRING AT THE 2024 ANNUAL MEETING**

**Christopher J. Twomey.** Mr. Twomey has served on our board of directors since July 2018. Since August 2013, Mr. Twomey has served as a director and Chairman of the Audit Committee of Tandem Diabetes Care, Inc., a medical device company. From March 1990 to June 2007, Mr. Twomey served in various roles, including as Senior Vice President, Finance and Chief Financial Officer, at Biosite Incorporated, a medical diagnostics company. From October 1981 to March 1990, Mr. Twomey served as an audit manager for Ernst & Young, LLP. From March 2006 to November 2018, Mr. Twomey served as a director of Senomyx, Inc., a taste technologies company that was acquired by Firmenich in November 2018. From July 2006 to March 2014, Mr. Twomey also served as a director and Chairman of the Audit Committee of Cadence Pharmaceuticals, Inc., a specialty pharmaceutical company that was acquired by Mallinckrodt plc in 2014. Mr. Twomey received his bachelors degree in Business Economics from the University of California at Santa Barbara.

Our Nominating and Corporate Governance Committee and Board believe that Mr. Twomey's substantial leadership skills and expertise in accounting and financial reporting qualifies him to serve as a member of our Board, and that such skills are especially valuable in his role as Chairman of our Audit Committee.

**Yvonne Linney, Ph.D.** Dr. Linney has served on our board of directors since May 2020. Since January 2021, Dr. Linney has served as Chief Operating Officer to Artificial Inc, a private company developing laboratory automation optimization software. From January 2019 to January 2021, Dr. Linney served as Principal at Linney BioConsulting, a strategy development firm in the life science industry. From January 2017 to November 2018, Dr. Linney served as the Chief Executive Officer of Transcriptic Inc. (now Strateos, Inc.), a private company that developed a robotic cloud laboratory platform, where she had previously served as Chief Operating Officer since October 2015. Dr. Linney also served on Transcriptic's Board of Directors from December 2016 to November 2018. In addition, from November 2006 to January 2015, Dr. Linney served as Executive Vice President and General Manager, Life Sciences at Agilent Technologies, Inc., a public life sciences and diagnostics company. Prior to joining Agilent, Dr. Linney served as Director of Molecular Diagnostics and Global Strategic Marketing at Bayer Diagnostics (now part of Siemens Healthcare) from 2005 to 2006 and

Senior Director, Marketing and Product Management at Caliper Life Sciences from 2003 to 2005. Dr. Linney also served as Director of Genomics at Amersham International (now GE Healthcare) from 1993 to 2003. Dr. Linney holds a BS in microbiology and virology from Warwick University, UK, and a Ph.D. in genetics from Leicester University, UK.

Our Nominating and Corporate Governance Committee and Board believe that Dr. Linney's over 25 years of experience in leadership roles in the life sciences and diagnostics industries qualify her to serve as a member of our Board.

**THE BOARD OF DIRECTORS RECOMMENDS  
A VOTE "FOR" EACH NAMED NOMINEE FOR THE DIRECTOR ELECTION PROPOSAL.**

## CLASS I DIRECTORS CONTINUING IN OFFICE UNTIL THE 2022 ANNUAL MEETING

**R. Erik Holmlin, Ph.D.** Dr. Holmlin has served as our President and Chief Executive Officer and as a member of our board of directors since January 2011. From June 2010 to February 2011, Dr. Holmlin served as president and Chief Executive Officer of GenVault Corporation, a private biosample management solutions company. Previously, Dr. Holmlin held positions as an entrepreneur in residence at Domain Associates, a dedicated life sciences venture capital firm; Chief Commercial Officer of Exiqon A/S, a publicly traded RNA research solutions company; founder and executive at GeneOhm Sciences, which was acquired by Becton Dickinson and Company; and a National Institutes of Health postdoctoral fellow at Harvard University. Until June 2016, Dr. Holmlin served as a director of Nanosphere, Inc., a publicly traded molecular diagnostic company, which was subsequently acquired by Luminex Corporation, a publicly traded biological testing company. Dr. Holmlin received his bachelor's degree in chemistry from Occidental College, his Ph.D. in chemistry from the California Institute of Technology and MBAs from University of California, Berkeley and Columbia University.

Our Nominating and Corporate Governance Committee and Board believe that Dr. Holmlin's over 17 years of experience in the life sciences and healthcare industries, which includes the areas of technology development, product commercialization and venture financing, qualifies him to serve on our board of directors.

**David L. Barker, Ph.D.** Dr. Barker has served on our board of directors since May 2010, and as Chairman of our board of directors since August 2016. Dr. Barker also serves as a member of the board of directors of AmideBio, Singular Genomics Systems, Symbiotic Systems, and Aspen Neuroscience. He is also a scientific advisor to Luna DNA. He served as Vice President and Chief Scientific Officer at Illumina, Inc., from 2000 to 2007, and on the Illumina scientific advisory board until May 2016. He was previously on the Boards of NextBio, which was acquired by Illumina in 2013, ProteinSimple, which was acquired by Bio-Techne in 2014, Zephyrus Biosciences, Inc., acquired by Bio-Techne in 2016, IntegenX, acquired by Thermo Fisher Scientific in 2018, and Integrated Diagnostics, acquired by Biodesix in 2018. Dr. Barker served from 1998 to 2000 as Vice President and Chief Science Advisor at Amersham Biosciences, now part of General Electric. From 1988 to 1998, Dr. Barker held senior positions, including Vice President of Research and Business Development, at Molecular Dynamics, Inc., until the acquisition of Molecular Dynamics by Amersham. In his academic career, Dr. Barker conducted interdisciplinary research in neurobiology as a postdoctoral fellow at Harvard Medical School, Assistant Professor at the University of Oregon and Associate Professor at Oregon State University. Dr. Barker holds a BS with honors in Chemistry from the California Institute of Technology and a Ph.D. in Biochemistry from Brandeis University.

Our Nominating and Corporate Governance Committee and Board believe that Dr. Barker's extensive experience in managing and leading early stage and established companies within the clinical diagnostic and biotechnology industries qualifies him to serve as a member of our Board.

## CLASS II DIRECTORS CONTINUING IN OFFICE UNTIL THE 2023 ANNUAL MEETING

**Albert Luderer, Ph.D.** Dr. Luderer has served on our board of directors since October 2011. Dr. Luderer currently serves as the Chief Executive Officer and a member of the board of directors of Indi Molecular, Inc., a synthetic antibody technology company, and as the Executive Chairman of the board of directors of Prostate Management Diagnostics Inc. Dr. Luderer has over 30 years of experience in executive leadership roles in the areas of technology development, operations and business development. Dr. Luderer received his bachelor's degree in zoology from Drew University and his MS in immunochemistry and Ph.D. in immunogenics from Rutgers University.

Our Nominating and Corporate Governance Committee and Board believe that Dr. Luderer's experience in the biotechnology sector, with special focuses on technology, business development and commercialization, qualifies him to serve as a member of our Board.

**Kristina Vuori, M.D., Ph.D.** Dr. Vuori has served on our board of directors since May 2019. Since January 2010, Dr. Vuori has served as President of Sanford Burnham Prebys Medical Discovery Institute, or the Institute, a non-profit research organization with major research programs in cancer, neurodegeneration, diabetes, and infectious, inflammatory, and childhood diseases. In addition, Dr. Vuori has also held the Pauline and Stanley Foster Presidential Chair at the Institute since January 2010 and served as the Institute's interim Chief Executive Officer from January 2013 to September 2014, and from September 2017 to 2020. Since January 1995, Dr. Vuori has served as a Professor at the Institute's National Cancer Institute designated Cancer Center, an

interdisciplinary basic and translational research effort mobilizing over 400 scientists. In addition, from July 2014 to September 2017, Dr. Vuori served on the board of directors of WebMD, and she serves or has served in the past five years on the boards of directors of the California Institute for Regenerative Medicine, Sio Gene Therapies, Inc. and Forian, Inc.. Dr. Vuori earned her M.D. and Ph.D. from the University of Oulu, Finland.

Our Nominating and Corporate Governance Committee and Board believe that Dr. Vuori's experience in biomedical research and as an educator of research scientists, her experience managing a large non-profit research organization, and her various leadership roles qualify her to serve on our Board.

**Hannah Mamuszka.** Ms. Mamuszka has served on our board of directors since May 2020. Since March 2016, Ms. Mamuszka has served as Founder and Chief Executive Officer of Alva10, a company focused on creating partnerships between health insurance payors and diagnostic companies. Ms. Mamuszka also served as an Executive Director of Precision Care Alliance, a non-profit focused on policy reform to enable diagnostic development, from April 2019 to May 2020. Ms Mamuszka currently serves on the Advisory Board of the University of North Carolina Health Informatics Program (CHIP). Additionally, from December 2010 to June 2015, she served as Vice President of Business Development and Clinical Strategy at Exosome Diagnostics, Inc., a private company developing liquid biopsy tests.

Our Nominating and Corporate Governance Committee and Board believe that Ms. Mamuszka's over 20 years of experience in the life sciences industry, extensive experience with diagnostics and various leadership roles qualify her to serve as a member of our Board.

### **INDEPENDENCE OF THE BOARD OF DIRECTORS**

As required under the Nasdaq Stock Market (“Nasdaq”) listing standards, a majority of the members of a listed company’s board of directors must qualify as “independent,” as affirmatively determined by the board of directors. Our Board consults with our counsel to ensure that the Board’s determinations are consistent with relevant securities and other laws and regulations regarding the definition of “independent,” including those set forth in pertinent listing standards of Nasdaq, as in effect from time to time.

Consistent with these considerations, after review of all relevant identified transactions or relationships between each director, or any of their family members, and the Company, its senior management and its independent auditors, the Board has affirmatively determined that each of Dr. Barker, Dr. Luderer, Dr. Vuori, Ms. Mamuszka, Mr. Twomey and Dr. Linney are independent directors within the meaning of the applicable Nasdaq listing standards. In making this determination, the Board found that none of these directors had a material or other disqualifying relationship with the Company.

### **BOARD LEADERSHIP STRUCTURE**

The Board has an independent Chairman, Dr. Barker, who has authority, among other things, to call and preside over Board meetings, including meetings of the independent directors, to set meeting agendas and to determine materials to be distributed to the Board. Accordingly, the Chairman has substantial ability to shape the work of the Board. We believe that separation of the positions of Chairman and Chief Executive Officer reinforces the independence of the Board in its oversight of our business and affairs. In addition, we have a separate chair for each committee of the Board. The chair of each committee is expected to report annually to our board of directors on the activities of their committee in fulfilling their responsibilities as detailed in their respective charters or specify any shortcomings should that be the case. In addition, we believe that having an independent Chairman creates an environment that is more conducive to objective evaluation and oversight of management’s performance, increasing management accountability and improving the ability of the Board to monitor whether management’s actions are in the best interests of us and our stockholders. As a result, we believe that having an independent Board Chairman can enhance the effectiveness of the Board as a whole.

### **ROLE OF THE BOARD IN RISK OVERSIGHT**

Risk is inherent with every business, and we face a number of risks, including strategic, financial, business and operational, legal and compliance, cybersecurity and reputational. One of the key functions of our Board is informed oversight of our risk management process. Our Board does not have a standing risk management committee, but rather administers this oversight function directly through the Board as a whole, as well as through various standing committees of the Board that address risks inherent in their respective areas of oversight. In particular, our Board is responsible for monitoring and assessing strategic risk exposure and our Audit Committee has the responsibility to consider and discuss our major financial risk exposures and the steps that management has taken to monitor and control these exposures, including guidelines and policies to govern the process by which risk assessment and management is undertaken. The Audit Committee also monitors compliance with legal and regulatory requirements, in addition to oversight of the performance of our internal audit function. Our Nominating and Corporate Governance Committee monitors the effectiveness of our corporate governance guidelines, including whether they are successful in preventing illegal or improper liability-creating conduct. Our Compensation Committee assesses and monitors whether any of our compensation policies and programs has the potential to encourage excessive risk-taking. It is the responsibility of the committee chairs to report findings regarding material risk exposures to the Board as quickly as possible. The Chairman coordinates between the Board and management with regard to the determination and implementation of responses to any problematic risk management issues.

### **MEETINGS OF THE BOARD OF DIRECTORS**

The Board met 10 times during the last fiscal year. Each Board member attended 75% or more of the aggregate number of meetings of the Board and of the committees on which he or she served, held during the portion of the last fiscal year for which he or she was a director or committee member.



As required under the Nasdaq listing standards, in 2020, our independent directors met four times in regularly scheduled executive sessions at which only independent directors were present.

## INFORMATION REGARDING COMMITTEES OF THE BOARD OF DIRECTORS

The Board has three standing committees: an Audit Committee; a Compensation Committee; and a Nominating and Corporate Governance Committee. The following table provides membership and meeting information for fiscal year 2020 for each of these committees of the Board:

Name	Audit	Compensation	Nominating and Corporate Governance
R. Erik Holmlin, Ph.D.			
David L. Barker, Ph.D.	X	X*	
Albert Luderer, Ph.D.	X		X*
Hannah Mamuszka <sup>(1)</sup>		X	
Christopher J. Twomey	X*		
Kristiina Vuori, M.D., Ph.D.		X	X
Yvonne Linney, Ph.D. <sup>(2)</sup>			X
Junfeng Wang <sup>(3)</sup>		X	X
Number of meetings in fiscal year 2020	5	2	2

\* Committee Chairperson

(1) Ms. Mamuszka was appointed to the Board in May 2020 and appointed to the Compensation Committee in December 2020.

(2) Dr. Linney was appointed to the Board in May 2020 and appointed to the Nominating and Corporate Governance Committee in December 2020.

(3) Mr. Wang resigned from the Board, the Compensation Committee and the Nominating and Corporate Governance Committee in May 2020.

Below is a description of each committee of the Board.

Each of the committees has authority to engage legal counsel or other experts or consultants, as it deems appropriate to carry out its responsibilities. The Board has determined that each member of each committee meets the applicable Nasdaq rules and regulations regarding “independence” and each member is free of any relationship that would impair his or her individual exercise of independent judgment with regard to the Company.

### Audit Committee

The Audit Committee was established by the Board in accordance with Section 3(a)(58)(A) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), to oversee the Company’s corporate accounting and financial reporting processes and audits of its financial statements. For this purpose, the Audit Committee performs several functions. The primary purpose of the Audit Committee is to discharge the responsibilities of the Board with respect to the Company’s corporate accounting and financial reporting processes, systems of internal control over financial reporting and financial-statement audits, as well as overseeing the Company’s independent registered accounting firm. Specific responsibilities of the Audit Committee include, among other things:

- helping the Board oversee the Company’s corporate accounting and financial reporting processes;
- managing the selection, engagement, qualifications, independence and performance of a qualified firm to serve as the independent registered public accounting firm to audit the Company’s financial statements;
- discussing the scope and results of the audit with the independent registered public accounting firm, and reviewing, with management and the independent accountants, our interim and year-end operating results;
- developing procedures for employees to submit concerns anonymously about questionable accounting or audit matters;

- reviewing related person transactions;
- obtaining and reviewing a report by the independent registered public accounting firm at least annually, that describes our internal quality control procedures, any material issues with such procedures, and any steps taken to deal with such issues when required by applicable law; and
- approving, or, as permitted, pre-approving, audit and permissible non-audit services to be performed by the independent registered public accounting firm.

The Audit Committee is currently composed of three directors: Mr. Twomey, Dr. Luderer and Dr. Barker. The Audit Committee met five times during the fiscal year. The Board has adopted a written Audit Committee charter that is available to stockholders on the Company’s website at [www.bionanogenomics.com](http://www.bionanogenomics.com). The information on our website is not incorporated by reference into this proxy statement or our Annual Report for fiscal year 2020.

The Board reviews the Nasdaq listing standards definition of independence for Audit Committee members on an annual basis and has determined that all members of the Company’s Audit Committee are independent (as independence is currently defined in Rule 5605(c)(2)(A)(i) and (ii) of the Nasdaq listing standards and Rule 10A-3(b)(1) of the Exchange Act).

Each member of the Audit Committee can read and understand fundamental financial statements in accordance with applicable requirements. In arriving at these determinations, the Board has examined each Audit Committee member’s scope of experience and the nature of their employment in the corporate finance sector.

The chair of the Audit Committee is Mr. Twomey, who the Board has determined is an “audit committee financial expert” as defined in applicable SEC rules. The Board made a qualitative assessment of Mr. Twomey’s level of knowledge and experience based on a number of factors, including his formal education, prior experience, business acumen and independence. In addition to the Company’s Audit Committee, Mr. Twomey also serves on the Audit Committee of Tandem Diabetes Care, Inc. The Board has determined that this simultaneous service does not impair Mr. Twomey’s ability to effectively serve on the Audit Committee.

#### **Report of the Audit Committee of the Board of Directors\***

The Audit Committee has reviewed and discussed the audited financial statements for the fiscal year ended December 31, 2020 with management of the Company. The Audit Committee has discussed with the independent registered public accounting firm the matters required to be discussed by the applicable requirements of the Public Company Accounting Oversight Board (“PCAOB”) and the SEC. The Audit Committee has also received the written disclosures and the letter from the independent registered public accounting firm required by applicable requirements of the PCAOB regarding the independent registered accountants firm’s communications with the Audit Committee concerning independence, and has discussed with the independent registered public accounting firm the accounting firm’s independence. Based on the foregoing, the Audit Committee has recommended to the Board that the audited financial statements be included in the Company’s Annual Report on Form 10-K for the fiscal year ended December 31, 2020.

Mr. Twomey, Chair  
 Dr. Luderer  
 Dr. Barker

\* *The material in this report is not “soliciting material,” is not deemed “filed” with the SEC and is not to be incorporated by reference in any filing of the Company under the Exchange Act or the Securities Act of 1933, as amended, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing.*

#### **Compensation Committee**

The Compensation Committee is currently composed of three directors: Dr. Barker, Dr. Vuori and Ms. Mamuszka. The Board has determined that each member of the Compensation Committee is independent under the Nasdaq listing standards, a “non-employee director” as defined in Rule 16b-3 promulgated under the Exchange Act and an “outside director” as that term is defined in Section 162(m) of the Internal Revenue Code

of 1986, as amended. The Compensation Committee met twice during the fiscal year. The Board has adopted a written Compensation Committee charter that is available to stockholders on the Company's website at [www.bionanogenomics.com](http://www.bionanogenomics.com). The information on our website is not incorporated by reference into this proxy statement or our Annual Report for fiscal year 2020.

The Compensation Committee of the Board acts on behalf of the Board to review, adopt or recommend to the Board for adoption and oversee the Company's compensation strategy, policies, plans and programs and to review and determine the compensation to be paid to our executive officers, directors and other senior management, as appropriate. Specific responsibilities of the Compensation Committee include, among other things:

- reviewing and approving the compensation of our chief executive officer, other executive officers and senior management;
- reviewing and recommending to the Board the compensation paid to our directors;
- reviewing and approving the compensation arrangements with our executive officers and other senior management;
- administering our equity incentive plans and other benefit programs;
- reviewing, adopting, amending and terminating, incentive compensation and equity plans, severance agreements, profit sharing plans, bonus plans, change-of-control protections and any other compensatory arrangements for our executive officers and other senior management;
- reviewing, evaluating and recommending to the Board succession plans for our executive officers; and
- reviewing and establishing general policies relating to compensation and benefits of our employees, including our overall compensation philosophy.

#### *Compensation Committee Processes and Procedures*

Typically, the Compensation Committee meets approximately two-three times per year and with greater frequency if necessary. The agenda for each meeting is usually developed by the Chair of the Compensation Committee, in consultation with management. The Compensation Committee meets regularly in executive session. However, from time to time, various members of management and other employees as well as outside advisors or consultants may be invited by the Compensation Committee to make presentations, to provide financial or other background information or advice or to otherwise participate in Compensation Committee meetings. The Chief Executive Officer does not participate in and is not present during any deliberations or determinations of the Compensation Committee regarding his compensation or individual performance objectives. The charter of the Compensation Committee grants the Compensation Committee full access to all books, records, facilities and personnel of the Company. In addition, under its charter, the Compensation Committee has the authority to obtain, at the expense of the Company, advice and assistance from compensation consultants and internal and external legal, accounting or other advisors and other external resources that the Compensation Committee considers necessary or appropriate in the performance of its duties. The Compensation Committee has direct responsibility for the oversight of the work of any consultants or advisers engaged for the purpose of advising the Compensation Committee. In particular, the Compensation Committee has the sole authority to retain, in its sole discretion, compensation consultants to assist in its evaluation of executive and director compensation, including the authority to approve the consultant's reasonable fees and other retention terms. Under its charter, to the extent required by the SEC and Nasdaq rules, the Compensation Committee may select, or receive advice from, a compensation consultant, legal counsel or other adviser to the compensation committee, other than in-house legal counsel and certain other types of advisers, only after taking into consideration six factors, prescribed by the SEC and Nasdaq, that bear upon the adviser's independence; however, there is no requirement that any adviser be independent.

During the past fiscal year, after taking into consideration the six factors prescribed by the SEC and Nasdaq described above, the Compensation Committee re-engaged Aon/Radford as its compensation consultant. Our Compensation Committee identified Aon/Radford based on its services to the Company during the prior fiscal year and Aon/Radford's general reputation in the industry and experience providing similar services to companies similar to Bionano. The Compensation Committee requested that Aon/Radford:

- evaluate the efficacy of the Company's compensation strategy and practices in supporting and reinforcing the Company's long-term strategic goals;
- assist in refining the Company's compensation strategy and in developing and implementing an executive compensation program to execute that strategy;
- develop a comparative group of companies and perform analyses of competitive performance and compensation levels for that group; and
- Examine competitiveness of equity compensation and retention value of the equity program.

The Compensation Committee holds one or more meetings during the first quarter of the year to discuss and make recommendations to the Board for annual compensation adjustments, annual bonuses, annual equity awards, and current year corporate performance objectives. However, the Compensation Committee also considers matters related to individual compensation, such as compensation for new executive hires, as well as high-level strategic issues, such as the efficacy of the Company's compensation strategy, potential modifications to that strategy and new trends, plans or approaches to compensation, at various meetings throughout the year. Generally, the Compensation Committee's process comprises two related elements: the determination of compensation levels and the establishment of performance objectives for the current year. For executives other than the Chief Executive Officer, the Compensation Committee solicits and considers evaluations and recommendations submitted to the Compensation Committee by the Chief Executive Officer. In the case of the Chief Executive Officer, the evaluation of his performance is conducted by the Compensation Committee, which determines recommendations to the Board regarding any adjustments to his compensation as well as equity awards to be granted. For all executives and directors as part of its deliberations, the Compensation Committee may review and consider, as appropriate, materials such as financial reports and projections, operational data, executive and director stock ownership information, company stock performance data, analyses of historical executive compensation levels and current Company-wide compensation levels, compensation data from comparative companies, compensation surveys, and recommendations of any compensation consultant, if applicable.

#### **Nominating and Corporate Governance Committee**

The Nominating and Corporate Governance Committee of the Board is responsible for identifying, reviewing and evaluating candidates to serve as directors of the Company (consistent with criteria approved by the Board), reviewing and evaluating incumbent directors, selecting or recommending to the Board for selection candidates for election to the Board, making recommendations to the Board regarding the membership of the committees of the Board, assessing the performance of the Board, and developing a set of corporate governance principles for the Company.

The Nominating and Corporate Governance Committee is currently composed of three directors: Dr. Luderer, Dr. Vuori, and Dr. Linney. Each member of the Nominating and Corporate Governance Committee is independent under the Nasdaq listing standards, a non-employee director and free from any relationship that would interfere with the exercise of his independent judgment. The Nominating and Corporate Governance Committee met twice during the fiscal year. The Board has adopted a written Nominating and Corporate Governance Committee charter that is available to stockholders on the Company's website at [www.bionanogenomics.com](http://www.bionanogenomics.com). The information on our website is not incorporated by reference into this proxy statement or our Annual Report for fiscal year 2020.

The responsibilities of the Nominating and Corporate Governance Committee include, among other things:

- identifying and evaluating candidates, including the nomination of incumbent directors for reelection and nominees recommended by stockholders, to serve on the Board;
- considering and making recommendations to the Board regarding the composition and chairmanship of the committees of the Board;

- instituting plans or programs for the continuing education of the Board and orientation of new directors;
- developing and making recommendations to the Board regarding corporate governance guidelines and matters; and
- overseeing periodic evaluations of the Board's performance, including committees of the Board and management.

The Nominating and Corporate Governance Committee believes that candidates for director should have certain minimum qualifications, including the ability to read and understand basic financial statements, being over 21 years of age and having the highest personal integrity and ethics. The Nominating and Corporate Governance Committee also intends to consider such factors as possessing relevant expertise upon which to be able to offer advice and guidance to management, having sufficient time to devote to the affairs of the Company, demonstrated excellence in his or her field, having the ability to exercise sound business judgment and having the commitment to rigorously represent the long-term interests of the Company's stockholders. However, the Nominating and Corporate Governance Committee retains the right to modify these qualifications from time to time. Candidates for director nominees are reviewed in the context of the current composition of the Board, the operating requirements of the Company and the long-term interests of stockholders. In conducting this assessment, the Nominating and Corporate Governance Committee typically considers diversity (including gender, racial and ethnic diversity), age, skills and such other factors as it deems appropriate, given the current needs of the Board and the Company, to maintain a balance of knowledge, experience and capability.

The Nominating and Corporate Governance Committee appreciates the value of thoughtful Board refreshment, and regularly identifies and considers qualities, skills and other director attributes that would enhance the composition of the Board. In the case of incumbent directors whose terms of office are set to expire, the Nominating and Corporate Governance Committee reviews these directors' overall service to the Company during their terms, including the number of meetings attended, level of participation, quality of performance and any other relationships and transactions that might impair the directors' independence. In the case of new director candidates, the Nominating and Corporate Governance Committee also determines whether the nominee is independent for Nasdaq purposes, which determination is based upon applicable Nasdaq listing standards, applicable SEC rules and regulations and the advice of counsel, if necessary. The Nominating and Corporate Governance Committee then uses its network of contacts to compile a list of potential candidates, but may also engage, if it deems appropriate, a professional search firm. The Nominating and Corporate Governance Committee conducts any appropriate and necessary inquiries into the backgrounds and qualifications of possible candidates after considering the function and needs of the Board. The Nominating and Corporate Governance Committee meets to discuss and consider the candidates' qualifications and then selects candidates for recommendation to the Board by majority vote.

Our Nominating and Corporate Governance Committee does not have a formal policy regarding board diversity. Diversity is one of a number of factors, however, that the committee takes into account in identifying nominees, and the Nominating and Corporate Governance Committee believes that it is essential that the board members represent diverse viewpoints. To accomplish the Board's diversity objectives, the Nominating and Governance Committee may retain an executive search firm to help identify potential directors that meet these objectives.

The Nominating and Corporate Governance Committee will consider director candidates recommended by stockholders. The Nominating and Corporate Governance Committee does not intend to alter the manner in which it evaluates candidates, including the minimum criteria set forth above, based on whether or not the candidate was recommended by a stockholder. Stockholders who wish to recommend individuals for consideration by the Nominating and Corporate Governance Committee to become nominees for election to the Board may do so by delivering a written recommendation to the Nominating and Corporate Governance Committee at the following address: Secretary of Bionano Genomics, Inc., 9540 Towne Centre Drive, Suite 100, San Diego, CA 92121, no later than the close of business on the 90<sup>th</sup> day nor earlier than the close of business on the 120<sup>th</sup> day prior to the first anniversary of the preceding year's annual meeting of stockholders. Submissions must include the name and address of the Company stockholder on whose behalf the submission is made; the number of Company shares that are owned beneficially by such stockholder as of the date of the submission; the full name of the proposed candidate; a description of the proposed candidate's business

experience for at least the previous five years; complete biographical information for the proposed candidate; and a description of the proposed candidate's qualifications as a director. Any such submission must be accompanied by the written consent of the proposed nominee to be named as a nominee and to serve as a director if elected.

#### **STOCKHOLDER COMMUNICATIONS WITH THE BOARD OF DIRECTORS**

The Board has adopted a formal process by which stockholders may communicate with the Board or any of its directors. Stockholders who wish to communicate with the Board may do so by sending written communications addressed to: Secretary of Bionano Genomics, Inc., 9540 Towne Centre Drive, Suite 100, San Diego, CA 92121. These communications will be reviewed by the Secretary of Bionano, who will determine whether the communication is appropriate for presentation to the Board or the relevant director. The purpose of this screening is to allow the Board to avoid having to consider irrelevant or inappropriate communications (such as advertisements, solicitations and hostile communications). The screening procedures have been approved by a majority of the independent directors. All communications directed to the Audit Committee in accordance with our Open Door Policy for Reporting Complaints Regarding Accounting and Auditing Matters that relate to questionable accounting or auditing matters will be promptly and directly forwarded to the Audit Committee.

#### **CODE OF ETHICS**

We have adopted a Code of Business Conduct and Ethics that applies to all of our officers, directors and employees. The Code of Business Conduct and Ethics is available on the Company's website at [www.bionanogenomics.com](http://www.bionanogenomics.com). The information on our website is not incorporated by reference into this proxy statement or our Annual Report for fiscal year 2020. If we make any substantive amendments to the Code of Business Conduct and Ethics or grant any waiver from a provision of the code to any executive officer or director, the Company will promptly disclose the nature of the amendment or waiver on its website.

#### **Hedging Policy**

As part of our insider trading policy, no officer, director, other employee or consultant may engage in short sales, transactions in put or call options, hedging transactions or other inherently speculative transactions with respect to our common stock at any time. In addition, no officer, director, other employee or consultant may margin, or make any offer to margin, or otherwise pledge as security, any of our common stock, including without limitation, borrowing against such stock, at any time.

**RATIFICATION OF SELECTION OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

The Audit Committee has selected BDO USA, LLP to serve as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2021 and our Board has further directed that management submit the Audit Committee's selection of BDO USA, LLP as the Company's independent registered public accounting firm for ratification by the stockholders at the Annual Meeting. On March 18, 2021, our audit committee approved the engagement of BDO USA, LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2021. Representatives of BDO USA, LLP are expected to be present by virtual attendance at the Annual Meeting. They will have an opportunity to make a statement if they so desire and will be available to respond to appropriate questions.

Neither the Company's Amended and Restated Bylaws nor other governing documents or law require stockholder ratification of the selection of BDO USA, LLP as the Company's independent registered public accounting firm. However, the Audit Committee is submitting the selection of BDO USA, 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 different independent auditors at any time during the year if they determine that such a change would be in the best interests of the Company and its stockholders.

**Vote Required**

The affirmative vote of the holders of a majority of the shares present by virtual attendance at the Annual Meeting or represented by proxy and entitled to vote on the matter at the Annual Meeting will be required to ratify the selection of BDO USA, LLP.

**CHANGES IN THE COMPANY'S CERTIFYING ACCOUNTANT FEES AND SERVICES**

Deloitte & Touche, LLP audited our financial statements for the fiscal year ended December 31, 2019. On May 3, 2020, the Audit Committee approved the dismissal of Deloitte & Touche and appointed BDO USA, LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2020.

The report of Deloitte & Touche, LLP on our financial statements for the fiscal year ended December 31, 2019 did not contain an adverse opinion or a disclaimer of opinion and was not qualified or modified as to uncertainty, audit scope or accounting principles, except that, the report expressed an unqualified opinion and included an explanatory paragraph relating to substantial doubt about our ability to continue as a going concern.

In connection with the audit of our financial statements for the fiscal year ended December 31, 2019, and during the subsequent interim period through May 3, 2020 (the effective date of Deloitte & Touche, LLP's dismissal), there were no disagreements (as that term is defined in Item 304(a)(1)(iv) of Regulation S-K and related instructions) with Deloitte & Touche, LLP on any matters of accounting principles or practices, financial statement disclosure or auditing scope and procedures which, if not resolved to the satisfaction of Deloitte & Touche, LLP, would have caused Deloitte & Touche, LLP to make reference to the matter in their report on the consolidated financial statements for such year.

For the fiscal year ended December 31, 2019, there were no reportable events (as described in Item 304(a)(1)(v) of Regulation S-K), except that, as disclosed in Part II, Item 9A of our Annual Report, we reported material weaknesses in our internal control over financial reporting during such period. As disclosed in our Annual Report, in connection with our evaluation of the effectiveness of its internal control over financial reporting (as defined in Rule 13a-15(f) under the Securities Exchange Act of 1934) as of December 31, 2019, we concluded that our internal control over financial reporting was not effective as of December 31, 2019 because we did not have a sufficient number of resources to support the growth and complexity of our financial reporting requirements. The foregoing material weakness contributed to a material weakness in our control activities based on the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in Internal Control-Integrated Framework. Specifically, the design of certain controls did not adequately provide appropriate segregation of duties and allow timely completion of financial reporting and accounting activities. The failure to maintain appropriate segregation of duties had a pervasive impact and as such, this deficiency resulted in a risk that could have impacted all financial statement account balances and disclosures. The material weaknesses did

not result in any identified material misstatements to our financial statements, and there were no changes to previously released financial results. Our activities to remediate the material weaknesses are disclosed in our Annual Report. The Audit Committee has discussed the material weaknesses in our internal control over financial reporting with Deloitte & Touche, LLP, and has authorized Deloitte & Touche, LLP to respond fully to the inquiries of BDO USA, LLP concerning such material weaknesses.

During the year ended December 31, 2019, and the subsequent interim period through May 3, 2020, neither we nor anyone on our behalf consulted with BDO USA, LLP regarding either (i) the application of accounting principles to a specific transaction, either completed or proposed, or the type of audit opinion that might be rendered on our consolidated financial statements or the effectiveness of internal control over financial reporting, and neither a written report or oral advice was provided to us that BDO USA, LLP concluded was an important factor considered by us in reaching a decision as to any accounting, auditing or financial reporting issue or (ii) any matter that was either the subject of a disagreement (as defined in Item 304(a)(1)(iv) of Regulation S-K and the related instructions) or any reportable event (as described in Item 304(a)(1)(v) of Regulation S-K).

#### PRINCIPAL ACCOUNTANT FEES AND SERVICES

The following table summarizes the aggregate fees billed to the Company by the Company's independent registered public accounting firm for the fiscal years ended December 31, 2020 and 2019. For the fiscal year ended December 31, 2020, the Company's principal accountant was BDO USA, LLP. For the fiscal year ended December 31, 2019, the Company's principal accountant was Deloitte & Touche, LLP.

	2020	2019
Audit fees <sup>(1)</sup>	\$517,162	\$640,000
Audit-related fees <sup>(2)</sup>	—	46,000
Tax fees <sup>(3)</sup>	19,425	19,700
All other fees	—	—
<b>Total</b>	<b>\$536,587</b>	<b>\$705,700</b>

- (1) Audit fees consist of fees billed for professional services rendered for the audit of the consolidated annual financial statements of the Company, review of the interim condensed consolidated financial statements included in quarterly reports, review of SEC-filings, and services that are normally provided in connection with statutory and regulatory filings or engagements.
- (2) Audit-related fees consist of fees billed for assurance and related services that are reasonably related to the performance of the audit or review of the consolidated financial statements of the Company and are not reported under "Audit fees." For the fiscal year ended December 31, 2019, these fees primarily related to miscellaneous professional services.
- (3) Tax fees consist of fees billed for professional services rendered for tax compliance, advice and planning. For the fiscal years ended December 31, 2020 and 2019, these services included assistance regarding federal and state tax compliance and consultations regarding various income tax issues.

During the fiscal year ended December 31, 2020, all of the total hours expended on our financial audit by BDO USA, LLP were provided by BDO USA, LLP's full-time permanent employees. During the fiscal year ended December 31, 2019, all of the total hours expended on our financial audit by Deloitte & Touche, LLP were provided by Deloitte & Touche, LLP's full-time permanent employees.

#### PRE-APPROVAL POLICIES AND PROCEDURES

In considering the nature of the services provided by BDO USA, LLP and Deloitte & Touche, LLP, the Audit Committee determined that such services were compatible with the provision of independent audit services.

The Audit Committee discussed these services with BDO USA, LLP and Deloitte & Touche, LLP and management to determine that they were permitted under the rules and regulations concerning auditor independence promulgated by the SEC to implement the Sarbanes-Oxley Act of 2002, as well as the Public Company Accounting Oversight Board. The Audit Committee required that all services performed by BDO USA, LLP and Deloitte & Touche, LLP be pre-approved prior to the services being performed. During the fiscal years ended December 31, 2020 and 2019, all services by BDO USA, LLP and Deloitte & Touche, LLP, respectively, were pre-approved in accordance with these procedures, and the Audit Committee continues to require that all services performed by BDO USA, LLP be pre-approved in accordance with these procedures prior to the services being performed.

**THE BOARD OF DIRECTORS RECOMMENDS  
A VOTE "FOR" THE AUDITOR RATIFICATION PROPOSAL.**



## EXECUTIVE OFFICERS

The following table sets forth information concerning our executive officers as of the date of this proxy statement:

Name	Age	Position
R. Erik Holmlin, Ph.D.	53	President, Chief Executive Officer and Director
Christopher Stewart	51	Chief Financial Officer
Mark Oldakowski	47	Chief Operating Officer
Alka Chaubey, Ph.D.	48	Chief Medical Officer

## EXECUTIVE OFFICERS WHO ARE NOT DIRECTORS

The following sets forth certain information with respect to our executive officers who are not directors:

**Christopher Stewart.** Mr. Stewart has served as our Chief Financial Officer since September 2020. Mr. Stewart brings more than 20 years of finance, accounting and strategic planning experience at companies ranging from startups to large public companies. Prior to joining the Company, Mr. Stewart served as the Head of the Maxwell Ultracapacitors business unit following its acquisition by Tesla, Inc., starting in May 2019. Previously, Mr. Stewart served as Vice President, Finance and Information Technology at Maxwell Technologies, Inc. from July 2015 to May 2019. In addition, Mr. Stewart held multiple leadership roles, including as Vice President, Finance at Entropic Communications, a publicly traded company and a leader in semiconductor solutions, and as Chief Financial Officer of V-ENABLE Inc. (currently xAd, Inc.), a leader in targeted mobile advertising. Mr. Stewart received his B.S. in business administration from the University of Southern California and his M.S. in Industrial Administration from Carnegie Mellon University.

**Mark Oldakowski.** Mr. Oldakowski has served as our Chief Operating Officer since November 2017 and previously served as our Vice President, Product Development and Operations since October 2014. From December 2011 to August 2014, Mr. Oldakowski served as the Senior Director of Engineering and Chief Product Officer at Brooks Life Science Systems, a provider of automation and cryogenic solutions for the life science industry, and from April 2009 to October 2011 as a Director of Engineering at Affymetrix, Inc., a private life science systems company that was acquired by Thermo Fisher Scientific in March 2016. From December 2007 to April 2009, Mr. Oldakowski served as a Senior Manager and Core Team Leader of R&D for Siemens Healthcare Diagnostics, and for the prior 13 years, he developed sequencing and real-time PCR systems at Applied Biosystems, now a part of Thermo Fisher Scientific. Mr. Oldakowski received both his bachelor's degree in electrical engineering and his master's degree in computer and systems engineering from Rensselaer Polytechnic Institute.

**Alka Chaubey, Ph.D.** Dr. Chaubey has served as our Chief Medical Officer since August 2020. Previously, she was the Head of Cytogenomics at PerkinElmer Genomics from May 2018 to August 2020, where Dr. Chaubey led the successful development and launch of several innovative products including the CNGnome test (low-pass whole genome sequencing), and a new FSHD assay utilizing Saphyr. She has also played an integral role on Vanadis team at PerkinElmer in their efforts to bring a new PCR-free NIPT technology to the market. Prior to PerkinElmer Genomics, Dr. Chaubey was the Director of the Cytogenomics Laboratory at the Greenwood Genetic Center, SC, USA from August 2013 to August 2020. She also holds an academic appointment as the Scientific Director of the Georgia Esoteric and Molecular Laboratory, Scientific Director of the Cytogenetics Laboratory of the Augusta University Medical Center and Adjunct Assistant professor of Pathology of the medical College of Georgia at Augusta University. Dr. Chaubey serves on the Board of Directors for the Cancer Genomics Consortium and is also the Genetics Subdivision Nominating Committee representative of the Association of Molecular Pathologists (AMP). She originally received her Doctorate degree (PhD) from Guru Nanak Dev University, Amritsar, India and completed her post-doctoral studies at Center for Cellular and Molecular Biology (CCMB), Hyderabad, India, and University of Illinois at Chicago (UIC).

**SECURITY OWNERSHIP OF  
CERTAIN BENEFICIAL OWNERS AND MANAGEMENT**

The following table sets forth information regarding beneficial ownership of our capital stock as of April 1, 2021 by:

- each person, or group of affiliated persons, known by us to beneficially own more than 5% of our common stock;
- each of our directors;
- each of our named executive officers; and
- all of our current executive officers and directors as a group.

The following table is based upon information supplied by officers, directors and principal stockholders and Schedules 13D and 13G filed with the SEC. Unless otherwise indicated in the footnotes to this table and subject to community property laws where applicable, the Company believes that each of the stockholders named in this table has sole voting and investment power with respect to the shares indicated as beneficially owned.

Applicable percentages are based on 278,794,489 shares of our common stock outstanding on April 1, 2021, adjusted as required by rules promulgated by the SEC. Unless otherwise indicated, the address for the following stockholders is care of: Bionano Genomics, Inc., 9540 Towne Centre Drive, Suite 100, San Diego, CA 92121.

Name of Beneficial Owner	Shares Owned Directly	Options Exercisable within 60 Days of 04/01/2021	Warrants	Number of Shares Beneficially Owned <sup>(1)</sup>	%(2)
<b>Directors and Named Executive Officers</b>	<b>**</b>	<b>**</b>	<b>**</b>	<b>**</b>	<b>**</b>
David L. Barker, Ph.D. <sup>(3)</sup>	3,894	85,046	3,894	92,834	*
R. Erik Holmlin, Ph.D.	5,191	519,771	1,630	526,592	*
Yvonne Linney, Ph.D.	—	67,738	—	67,738	*
Albert Luderer, Ph.D.	—	80,911	—	80,911	*
Hannah Mamuszka	—	67,738	—	67,738	*
Christopher J. Twomey <sup>(4)</sup>	64,500	71,730	64,500	200,730	*
Kristiina Vuori, M.D., Ph.D.	—	60,105	—	60,105	*
Mark Oldakowski	12,086	247,454	815	260,355	*
Christopher Stewart	8,000	230,729	—	238,729	*
<b>All directors and executive officers as a group (10 persons)<sup>(5)</sup></b>	<b>93,671</b>	<b>1,446,044</b>	<b>70,839</b>	<b>1,610,554</b>	<b>0.6%</b>

\* Represents beneficial ownership of less than 1%.

- (1) Beneficial ownership is determined in accordance with SEC rules. In computing the beneficial ownership we have included shares for which the named person has sole or shared power over voting or investment decisions. The number of shares of common stock beneficially owned includes common stock which the named person has the right to acquire, through option exercise or otherwise, within 60 days after April 1, 2021. No person or group of affiliated persons is known by us to beneficially own more than 5% of our common stock as of April 1, 2021.
- (2) For each named person, the percentage ownership includes common stock that the person has the right to acquire within 60 days after April 1, 2021, as described in Footnote 1. However, such shares are not deemed outstanding with respect to the calculation of ownership percentage for any other person. In some cases, beneficial ownership calculations for five percent or greater stockholders are based solely on publicly-filed Schedules 13D or 13G, which five percent or greater stockholders are required to file with the SEC, and which generally set forth ownership interests as of April 1, 2021 unless otherwise provided.
- (3) The indicated ownership consists of (i) 3,894 shares of common stock and 3,894 shares of common stock issuable upon the exercise of outstanding warrants held by David L. Barker and (ii) 85,046 shares of common stock subject to options exercisable as of April 1, 2021 held by The Barker/Loring Trust Dated August 27, 2018.
- (4) The indicated ownership consists of (i) 64,500 shares of common stock and 64,500 shares of common stock issuable upon the exercise of outstanding warrants held by the Christopher J. Twomey and Rebecca J. Twomey Family Trust and (ii) 71,730 shares of common stock subject to options exercisable as of April 1, 2021 held by Christopher J. Twomey.
- (5) Consists of shares identified in the list of directors and named executive officers above plus 14,822 shares of common stock subject to options exercisable within 60 days after April 1, 2021.

## DELINQUENT SECTION 16(A) REPORTS

Section 16(a) of the Exchange Act requires our directors and executive officers, and persons who own more than 10% of a registered class of our equity securities, to file with the SEC initial reports of ownership and reports of changes in ownership of our common stock and other equity securities. Officers, directors and greater than 10% stockholders are required by SEC regulation to furnish us with copies of all Section 16(a) forms they file.

To our knowledge, based solely on a review of the copies of such reports furnished to us and written representations that no other reports were required, during the fiscal year ended December 31, 2020, all

Section 16(a) filing requirements applicable to our officers, directors and greater than 10% beneficial owners of our capital stock were complied with, except that Dr. Chaubey inadvertently reported an incorrect number of stock options owned in her initial Form 3 report filed on September 3, 2020. This error was corrected by amending the previous Form 3 report, filed on April 23, 2021.

## EXECUTIVE AND DIRECTOR COMPENSATION

Our named executive officers for the year ended December 31, 2020, consisting of our principal executive officer and the next two most highly compensated executive officers as of December 31, 2020, were:

- R. Erik Holmlin, Ph.D., our Chief Executive Officer;
- Mark Oldakowski, our Chief Operating Officer
- Christopher Stewart, our Chief Financial Officer

The following section provides an overview of the 2020 executive compensation decisions for our named executive officers. The compensation decisions described in the tables and narrative below were made in 2019 or in early 2020 before the recent disruptions to the U.S. economy related to the COVID-19 pandemic. In April 2020, in connection with the direct and indirect effects of the COVID-19 pandemic on our business, the Board approved salary reductions for our executive officers and certain other employees, including 50% salary reductions for each of Dr. Holmlin and Mr. Oldakowski. The salaries of Dr. Holmlin and Mr. Oldakowski were restored to their previous levels on June 15, 2020, after the Board assessed the impact of the pandemic and measures that had been taken by management to mitigate such impact. The Board and Compensation Committee will continue to consider the impacts of the COVID-19 pandemic on our executive compensation program as warranted.

### Summary Compensation Table

The following table presents all of the compensation awarded to or earned by or paid to our named executive officers during the fiscal year ended December 31, 2020.

Name and Principal Position	Year	Salary (\$)	Bonus (\$)	Option Awards <sup>(1)</sup> (\$)	Non-Equity Incentive Plan Compensation <sup>(2)</sup> (\$)	All Other Compensation <sup>(3)</sup> (\$)	Total (\$)
R. Erik Holmlin, Ph.D. <i>Chief Executive Officer</i>	2020	376,290 <sup>(4)</sup>	—	188,500	121,508	21,275	707,573
	2019	403,636	—	351,002	132,392	11,560	898,590
Mark Oldakowski <i>Chief Operating Officer</i>	2020	288,278 <sup>(4)</sup>	—	78,000	76,420	11,400	454,098
	2019	305,325	—	145,242	84,727	11,560	546,854
Christopher Stewart <sup>(5)</sup> <i>Chief Financial Officer</i>	2020	18,027	—	210,500	23,400	451	252,378
	2019	—	—	—	—	—	—

(1) In accordance with SEC rules, this column reflects the aggregate grant date fair value of stock options granted to our named executive officers during fiscal years ended December 31, 2019 and December 31, 2020 under our 2018 Equity Incentive Plan, as amended (the "2018 Plan") and our 2020 Inducement Plan (the "Inducement Plan"), as determined in accordance with the provisions of FASB ASC Topic 718. The valuation assumptions used in calculating their fair value of the stock options are included in the notes to our audited consolidated financial statements included in the Annual Report. These amounts do not reflect the actual economic value that may be realized by the named executive officer upon the vesting of the stock options, the exercise of the stock options, or the sale of the common stock underlying such stock options.

(2) Amounts reported represent bonuses earned in 2019 and paid in 2020 and earned in 2020 and paid in 2021 at the discretion of our Board.

(3) Amounts for 2019 reflect \$11,200 for 401(k) matching contributions and \$360 for life insurance premiums and amounts for 2020 reflect \$11,400 for 401(k) matching contributions and \$480 for life insurance premiums.

(4) In connection with a COVID-related cost savings initiative, the base salaries for Dr. Holmlin and Mr. Oldakowski were reduced by 50% from April 16, 2020 through June 15, 2020.

(5) Mr. Stewart began providing services to us in September 2020 and did not receive any compensation from us prior to such date.

### Compensation Program Overview

Our compensation program for executive officers is designed to encourage our management team to continually achieve our short-term and long-term corporate objectives while effectively managing business risks and challenges. We provide what we believe is a competitive total compensation package to our management team through a combination of base salary, an annual performance-based bonus and long-term equity-based incentives.

The compensation of our named executive officers other than our chief executive officer is generally determined and approved by the Compensation Committee of our Board, and the compensation of our chief executive officer is approved by our Board based upon the recommendations of the Compensation Committee.

### Annual Base Salary

The compensation of our named executive officers is generally determined and approved by our Board, based on the recommendation of the compensation committee of our Board. The 2020 base salaries that became effective as of January 1, 2020 were as follows:

NAME	2020 BASE SALARY (\$)
R. Erik Holmlin, Ph.D.	410,500
Mark Oldakowski	314,500
Christopher Stewart <sup>(1)</sup>	54,080

(1) Mr. Stewart began providing services to us in September 2020 and did not receive any compensation from us prior to such date

### Bonus Opportunity

In addition to base salaries, our named executive officers are eligible to receive annual performance-based cash bonuses, which are designed to provide appropriate incentives to our executives to achieve defined annual performance goals and to reward our executives for individual achievement towards these goals. The annual performance-based bonus each named executive officer is eligible to receive is generally based on the extent to which we achieve the corporate goals that our compensation committee establishes each year and, for all except Dr. Holmlin, the individual's contributions to such achievements. Dr. Holmlin's payout is based entirely on Company performance, Mr. Oldakowski and Mr. Stewart's payouts are based on Company performance (50% weighting) and individual performance (50% weighting). At the end of the year, our board of directors reviews each executive's performance and determines the actual bonus payout to be awarded to each of our named executive officers.

For 2020, the target bonus for Dr. Holmlin was 40% of base salary, for Mr. Oldakowski was 30% of base salary and for Mr. Stewart, up to \$30,500 for calendar year 2020. Our corporate performance objectives for 2020, as established by our compensation committee, included achievement of our 2020 operating plan, completion of market development goals, accomplishment of product development milestones, and securing additional financing. In March 2021, our board of directors approved a 74% overall achievement level of our corporate goals and awarded bonuses to our named executive officers, except for Dr. Holmlin, for whom our board approved a 100% overall achievement level based on individual performance in 2020.

### Equity-Based Incentive Awards

We believe that our ability to grant equity-based awards is a valuable and necessary compensation tool that aligns the long-term financial interests of our employees, consultants and directors with the financial interests of our stockholders. In addition, we believe that our ability to grant equity-based awards helps us to attract, retain and motivate employees, consultants and directors, and encourages them to devote their best efforts to our business and financial success. Our board of directors is responsible for approving equity grants. Vesting of equity awards is generally tied to continuous service with us and serves as an additional retention measure. Our executives generally are awarded an initial new hire grant upon commencement of employment. Additional grants may occur periodically in order to specifically incentivize executives with respect to achieving certain corporate goals or to reward executives for exceptional performance.

Prior to our August 2018 initial public offering, or the IPO, we granted all equity awards pursuant to the 2006 Plan. Following our IPO, we have granted all equity awards pursuant to the 2018 Plan and the Inducement Plan. All options are granted with a per share exercise price equal to no less than the fair market value of a share of our common stock on the date of the grant of such award. Generally, our stock option awards vest over a four-year period subject to the holder's continuous service to us.

In February 2020, our board of directors granted options to purchase 290,000 shares to Dr. Holmlin and 120,000 shares to Mr. Oldakowski. Each option has an exercise price of \$1.04 per share and vests as follows: shares subject to the option vest monthly over 48 months beginning on the one-month anniversary of the vesting commencement date, such that the option shall be fully vested and exercisable on the four-year anniversary of the vesting commencement date, provided in each case that the holder is then providing services to us in accordance with the terms of the 2018 Plan.

In September 2020, as an inducement material to Mr. Stewart entering into employment with the Company, pursuant to Nasdaq Rule 5635(c)(4), our compensation committee granted to Mr. Stewart (i) a stock option to purchase 350,000 shares (the “Initial Option”) and (ii) an additional stock option to purchase 225,000 shares (the “Additional Option”). Each of the Initial Option and the Additional Option has an exercise price of \$0.56 per share. The shares subject to the Initial Option will vest over four years of continuous service by Mr. Stewart to us, with 25% of the shares subject to the option vesting upon Mr. Stewart’s completion of one year of service measured from his start date and the balance of the shares vesting monthly thereafter for the next three years. The shares subject to the Additional Option will vest in full on December 31, 2020.

For additional information, please see below under “Outstanding Equity Awards at Fiscal Year-End.”

### Equity Compensation Plan Information

The following table provides information as of December 31, 2020 with respect to equity compensation plans (including individual compensation arrangements) under which the Company’s common stock is authorized for issuance.

Plan Category	Number of securities to be issued upon exercise of outstanding options and rights	Weighted average exercise price of outstanding options and rights	Number of securities remaining available for future issuance under equity compensation plans
Equity compensation plans approved by stockholders:			
Amended and Restated 2006 Equity Compensation Plan	262,862	\$4.78	204,345
2018 Equity Incentive Plan	3,092,639	\$2.51	1,012,213
2018 Employee Stock Purchase Plan	—	—	297,462
Equity compensation plans not approved by stockholders:			
2020 Inducement Plan	1,934,000	\$0.56	258,333
<b>Total</b>	<b>5,289,501</b>	<b>\$1.91</b>	<b>1,772,353</b>

### Agreements with Our Named Executive Officers

Below are descriptions of our employment agreements with our named executive officers. For a discussion of the severance pay and other benefits to be provided in connection with a termination of employment and/or a change in control under the arrangements with our named executive officers, please see “-Potential Payments upon Termination or Change in Control” below.

*Dr. Holmlin.* We entered into an employment agreement with Dr. Holmlin in January 2011, as amended in March 2011 and in November 2017, which governs the current terms of his employment with us. Pursuant to the agreement, as amended, Dr. Holmlin was entitled to an initial annual base salary of \$315,000 (subsequently increased to \$410,500) and is eligible to receive an annual performance bonus with a target of 40% of his base salary (subsequently increased to 50%), with a higher amount possible if goals exceeding target are achieved, as determined by our compensation committee and subject to approval by our board of directors. In addition, Dr. Holmlin was eligible to receive an option to purchase shares of the Company’s common stock representing 5.0% of the fully-diluted equity shares immediately subsequent to the closing of a Series B transaction, which were equal to 2,992 shares of our common stock and were granted in 2011. In addition, Dr. Holmlin’s agreement provided for additional options to be granted in connection with specified events in order to maintain

Dr. Holmlin's ownership percentage, pursuant to which Dr. Holmlin was granted additional options to purchase 1,115 shares in 2012 and 2,546 shares in 2015. No obligations to make additional grants to maintain Dr. Holmlin's ownership percentage remain under his employment agreement. Dr. Holmlin's employment is at will.

*Mr. Oldakowski.* We entered into an employment agreement with Mr. Oldakowski on November 7, 2017, which governs the current terms of his employment with us. Pursuant to the agreement, Mr. Oldakowski was entitled to an initial annual base salary of \$276,925 (subsequently increased to \$314,485) and is eligible to receive an annual performance bonus with a target amount of up to 20% of his base salary (subsequently increased to 40%), as determined by our board of directors. Mr. Oldakowski's employment is at will.

*Mr. Stewart.* We entered into an employment agreement with Mr. Stewart on September 1, 2020, which governs the current terms of his employment with us. Pursuant to the agreement, Mr. Stewart was entitled to an initial annualized base salary of \$54,080 for the remainder of calendar year 2020, and commencing on January 1, 2021, an annual base salary of \$305,000. Mr. Stewart was eligible to receive an annual performance bonus of up to \$30,500 for calendar year 2020 and an annual performance bonus with a target amount of up to 30% of his base salary thereafter. Mr. Stewart's employment is at will.

### **Potential Payments upon Termination or Change in Control**

Regardless of the manner in which a named executive officer's service terminates, each named executive officer is entitled to receive amounts earned during his term of service, including unpaid salary and unused vacation. In addition, each of our named executive officers is eligible to receive certain benefits pursuant to his employment agreement with us, as described below. For the definitions of "cause," "good reason" and "disability" referenced below, please refer to the individual employment agreements with each of our named executive officers.

*Dr. Holmlin.* Upon Dr. Holmlin's termination for any reason other than death, disability, cause or resignation without good reason, and subject to Dr. Holmlin's execution of a release, Dr. Holmlin shall be eligible to receive a lump sum amount equal to nine months of base salary, (ii) accelerated vesting of any options or restricted shares that would have vested within 18 months after the date of termination and (iii) premiums for continued health coverage for nine months following the date of termination, or until Dr. Holmlin is no longer eligible for continuation coverage, whichever is earlier. In the event of termination due to disability, and subject to Dr. Holmlin's execution of a release, Dr. Holmlin shall be eligible to receive accelerated vesting in full for any unvested portion of the options granted pursuant to his agreement. In the event of a deemed liquidation event (as defined in Dr. Holmlin's employment agreement), the options granted to Dr. Holmlin pursuant to his agreement shall vest in full.

*Mr. Oldakowski.* Upon termination without cause, and subject to Mr. Oldakowski's execution of a release, Mr. Oldakowski will be eligible to receive (i) six months of continued base salary payments at the rate in effect at the time of termination and (ii) premiums for continued health coverage for six months following the date of termination or until Mr. Oldakowski is no longer eligible for continuation coverage or he becomes eligible for new healthcare eligibility available through new employment, whichever is earlier.

*Mr. Stewart.* Upon termination without cause, and subject to Mr. Stewart's execution of a release, Mr. Stewart will be eligible to receive (i) six months of continued base salary payments at the rate in effect at the time of termination and (ii) premiums for continued health coverage for six months following the date of termination or until Mr. Stewart is no longer eligible for continuation coverage or he becomes eligible for new healthcare eligibility available through new employment, whichever is earlier. In addition to the foregoing, if Mr. Stewart is terminated for other than cause, death or disability during the 30 days before and 24 months following a change in control of the Company, Mr. Stewart will be entitled to acceleration of 100% of the Initial Option in full.

Each of our named executive officers holds stock options under the 2006 Plan, 2018 Plan or the Inducement Plan that were granted subject to the general terms of the 2006 Plan, the 2018 Plan or the Inducement Plan, as applicable, and the relevant form of stock option agreement. The specific vesting terms of each named executive officer's stock options are described below under "-Outstanding Equity Awards at Fiscal Year-End."

## 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, 2020.

Name	Grant Date	Option Awards <sup>(1)</sup>			
		Number of Securities Underlying Unexercised Options Exercisable	Number of Securities Underlying Unexercised Options Unexercisable	Option Exercise Price Per Share <sup>(2)</sup>	Option Expiration Date
R. Erik Holmlin, Ph.D. <sup>(3)</sup>	2/18/2020 <sup>(4)</sup>	60,416	229,584	\$ 1.04	2/17/2030
	3/1/2019 <sup>(4)</sup>	63,437	81,563	\$ 4.25	2/28/2029
	10/1/2018 <sup>(5)</sup>	203,094	53,446	\$ 7.77	9/30/2028
	2/7/2017 <sup>(6)</sup>	99,235	57,744	\$ 1.30	2/6/2027
	1/29/2015	7,284	—	\$ 64.22	1/28/2025
	6/20/2012	1,115	—	\$ 68.50	6/19/2022
	5/16/2011	2,992	—	\$ 42.82	5/15/2021
Mark Oldakowski	2/18/2020 <sup>(4)</sup>	—	120,000	1.04	2/17/2030
	3/1/2019 <sup>(4)</sup>	26,250	33,750	\$ 4.25	2/28/2029
	10/1/2018 <sup>(5)</sup>	47,175	12,415	\$ 7.77	9/30/2028
	2/7/2017	28,219	—	\$ 1.30	2/6/2027
	1/29/2015	541	—	\$64.22	1/28/2025
	10/27/2014	1,086	—	\$64.22	10/26/2024
Christopher Stewart	9/1/2020 <sup>(7)</sup>	—	350,000	0.56	8/31/2030
	9/1/2020	225,000	—	0.56	8/31/2030

(1) Option awards were granted under the 2006 Plan, the 2018 Plan and the Inducement Plan.

(2) All of the option awards were granted with a per share exercise price equal to the fair market value of one share of our common stock on the date of grant, as determined in good faith by our board of directors.

(3) All outstanding options under the 2006 option plan, held by Dr. Holmlin were amended by our board of directors in August 2018 to suspend the vesting until such time as the price of our common stock is at least \$12.00 per share for 90 consecutive trading days, at which point the suspension will automatically and immediately lapse and the awards will vest to the extent they otherwise would have vested pursuant to their terms and notwithstanding the suspension and will continue to vest thereafter under their original vesting schedules. In addition, the suspension will lapse as to the awards held by Dr. Holmlin upon Dr. Holmlin's death, disability or upon a change in control of the Company, as such terms are defined in the 2018 Plan.

(4) Each option award vests as follows: The shares subject to the option vest monthly over 48 months beginning on the one-month anniversary of the vesting commencement date, such that the option shall be fully vested and exercisable on the four-year anniversary of the vesting commencement date.

(5) Each option award vests as follows: 25% of the shares subject to the option vest on the date of grant and the balance of the shares vest in a series of 36 successive equal monthly installments thereafter, provided in each case that the holder is then providing services to us in accordance with the terms of the 2018 Plan.

(6) Each option award vests as follows: 25% of the shares subject to the option are fully vested and 6.25% of the shares subject to the option vest at the end of each three month anniversary of the vesting commencement date, subject to single trigger acceleration of vesting in connection with a change of control, provided in each case that the holder is then providing services to us in accordance with the terms of the 2006 Plan.

(7) Option award vests as follows: 25% of the shares subject to the option vest on September 1, 2021, and the remaining shares subject to the option vest in 36 equal monthly installments thereafter, subject to the Mr. Stewart's continuous service through each such applicable vesting date.

## Perquisites, Health, Welfare and Retirement Benefits

All of our current named executive officers are eligible to participate in our employee benefit plans, including our medical, dental, vision, life, disability and accidental death and dismemberment insurance plans, in each case on the same basis as all of our other employees. We pay the premiums for the life, disability, accidental death and dismemberment insurance for all of our employees, including our named executive officers. In addition, we provide a 401(k) plan to our employees, including our named executive officers, as discussed in the section below entitled “-401(k) Plan.” We generally do not provide perquisites or personal benefits to our named executive officers.



## **Nonqualified Deferred Compensation**

Our named executive officers did not participate in, or earn any benefits under, a nonqualified deferred compensation plan sponsored by us during the fiscal year ended December 31, 2020. Our Board may elect to provide our officers and other employees with nonqualified defined contribution or other nonqualified deferred compensation benefits in the future if it determines that doing so is in our best interests.

## **Equity Benefit Plans**

The principal features of our equity plans are summarized below.

### ***2020 Inducement Plan***

The Board adopted the Inducement Plan in August 2020. Our 2020 Inducement Plan was adopted without stockholder approval pursuant to Rule 5635(c) of the Nasdaq Listing Rules. Our 2020 Inducement Plan provides for the grant of nonstatutory stock options, stock appreciation rights, restricted stock awards, restricted stock unit awards, performance stock awards, performance cash awards and other forms of stock awards.

Stock awards granted under our 2020 Inducement Plan may only be made to individuals who did not previously serve as employees or non-employee directors of the Company or an affiliate of the Company (or following such individuals' bona fide period of non-employment with the Company or an affiliate of the Company), as an inducement material to the individuals' entering into employment with the Company or an affiliate of the Company or in a manner otherwise permitted by Rule 5635(c) of the Nasdaq Listing Rules. In addition, stock awards must be approved by either a majority of the Company's "independent directors" (as such term is defined in Rule 5605(a)(2) of the Nasdaq Listing Rules) or the Compensation Committee, provided such committee comprises solely independent directors. The terms of our 2020 Inducement Plan are otherwise substantially similar to our 2018 Plan (including with respect to the treatment of stock awards upon corporate transactions involving us or certain changes in our capitalization), except stock awards granted under our 2020 Inducement Plan may not be repriced without stockholder approval.

The maximum number of shares of our common stock that may be issued under our 2020 Inducement Plan is 2,100,000 shares. Shares subject to stock awards granted under our 2020 Inducement Plan that expire or terminate without being exercised in full, or that are paid out in cash rather than in shares, do not reduce the number of shares available for issuance under our 2020 Inducement Plan. Additionally, shares become available for future grant under our 2020 Inducement Plan if they were issued under stock awards granted under our 2020 Inducement Plan and we repurchase or reacquire them or they are forfeited. This includes shares used to pay the exercise price of a stock award or to satisfy the tax withholding obligations related to a stock award.

### ***2018 Equity Incentive Plan***

Our 2018 Plan became effective upon the IPO following approval by our Board and our stockholders. The number of shares of common stock reserved for issuance under the 2018 Plan will automatically increase on January 1 of each calendar year, starting on January 1, 2019 through January 1, 2028, in an amount equal to 5% of the total number of shares of the Company's capital stock outstanding on the last day of the calendar month before the date of each automatic increase, or a lesser number of shares determined by the Board. As of December 31, 2020, 5,119,378 shares of common stock were authorized for future grants under the 2018 Plan and there were 3,092,639 outstanding stock options.

Our 2018 Plan provides for the grant of incentive stock options, or ISOs, within the meaning of Section 422 of the Code, to employees, including employees of any parent or subsidiary, and for the grant of nonstatutory stock options, or NSOs, stock appreciation rights, restricted stock awards, restricted stock unit awards, performance stock awards, performance cash awards and other forms of stock awards to employees, directors and consultants, including employees and consultants of our affiliates. Our 2018 Plan is a successor to and continuation of our 2006 Plan. Our compensation committee has the authority, concurrent with our Board, to administer our 2018 Plan, and may also delegate to one or more of our officers certain authority under the terms of the 2018 Plan.

Stock options under the 2018 Plan are generally granted with an exercise price equal to the fair market value of our common stock on the date of grant. Options granted under the 2018 Plan vest at the rate specified in the stock option agreement as determined by the plan administrator. Options may have a term up to a

maximum of 10 years. Unless the terms of an optionee's stock option agreement provides otherwise, if an optionee's service relationship with us, or any of our affiliates, ceases for any reason other than disability, death or cause, the optionee may generally exercise any vested options for a period of three months following the cessation of service. If an optionee's service relationship with us, or any of our affiliates, ceases due to disability or death, or an optionee dies within a certain period following cessation of service, the optionee or a beneficiary may generally exercise any vested options for a period of 12 months in the event of disability and 18 months in the event of death. In the event of a termination for cause, options generally terminate immediately upon the termination of the individual. In no event may an option be exercised beyond the expiration of its term.

Our 2018 Plan provides that in the event of certain specified significant corporate transactions (or a change in control, as defined below), unless otherwise provided in an award agreement or other written agreement between us and the award holder, the administrator may take one or more of the following actions with respect to such stock awards:

- arrange for the assumption, continuation, or substitution of a stock award by a successor corporation;
- arrange for the assignment of any reacquisition or repurchase rights held by us to a successor corporation;
- accelerate the vesting, in whole or in part, of the stock award and provide for its termination if not exercised (if applicable) at or before the effective time of the transaction;
- arrange for the lapse, in whole or in part, of any reacquisition or repurchase rights held by us;
- cancel or arrange for the cancellation of the stock award, to the extent not vested or not exercised before the effective time of the transaction, in exchange for a cash payment, if any, as determined by the board; or
- make a payment, in the form determined by our Board, equal to the excess, if any, of (A) the value of the property the participant would have received on exercise of the award immediately before the effective time of the transaction, over (B) any exercise price payable by the participant in connection with the exercise.

The plan administrator is not obligated to treat all stock awards or portions of stock awards, even those that are of the same type, in the same manner and is not obligated to treat all participants in the same manner.

Under the 2018 Plan, a corporate transaction is generally the consummation of: (1) a sale of all or substantially all of our assets, (2) the sale or disposition of more than 50% of our outstanding securities, (3) a merger or consolidation where we do not survive the transaction, or (4) a merger or consolidation where we do survive the transaction but the shares of our common stock outstanding immediately before such transaction are converted or exchanged into other property by virtue of the transaction.

In the event of a change in control, the board of directors may take any of the above-mentioned actions. Awards granted under the 2018 Plan will not receive automatic acceleration of vesting and exercisability in the event of a change in control, although this treatment may be provided for in an award agreement or other written agreement between the Company and the participant. Under the 2018 Plan, a change in control is generally (1) the acquisition by any person or company of more than 50% of the combined voting power of our then outstanding stock, (2) a merger, consolidation or similar transaction in which our stockholders immediately before the transaction do not own, directly or indirectly, more than 50% of the combined voting power of the surviving entity (or the parent of the surviving entity), (3) a sale, lease, exclusive license or other disposition of all or substantially all of our assets other than to an entity more than 50% of the combined voting power of which is owned by our stockholders, (4) a complete dissolution or liquidation of the Company, or (5) when a majority of our Board becomes comprised of individuals who were not serving on our Board on the date of the underwriting agreement related to the IPO, or the incumbent board, or whose nomination, appointment, or election was not approved by a majority of the incumbent board still in office.

#### ***Amended and Restated 2006 Equity Compensation Plan***

Our Board adopted and our stockholders originally approved our 2006 Plan in September 2006, and it was subsequently amended and restated in September 2008 and most recently amended in March 2016. No further grants may be made under our 2006 Plan following the IPO, however outstanding awards granted under our

2006 Plan remain subject to the terms of our 2006 Plan and applicable award agreements. As of December 31, 2020, there were options to purchase 262,862 shares of common stock outstanding under the 2006 Plan.

Our 2006 Plan allowed for the grant of ISOs to employees, including employees of any subsidiary, and for the grant of NSOs, stock appreciation rights, restricted stock awards and restricted stock units and other equity awards to employees, directors and consultants, including employees and consultants of our subsidiaries. Our compensation committee has the authority, concurrent with our Board, to administer our 2006 Plan. Unless the terms of an optionee's stock option agreement provides otherwise, if an optionee's service relationship with us, or any of our affiliates, ceases for any reason other than disability, death or cause, the optionee may generally exercise any vested options for a period of three months following the cessation of service. If an optionee's service relationship with us, or any of our affiliates, ceases due to disability or death, or an optionee dies within a certain period following cessation of service, the optionee or a beneficiary may generally exercise any vested options for a period of 12 months in the event of disability or death. In the event of a termination for cause, options generally terminate immediately upon the termination of the individual. In no event may an option be exercised beyond the expiration of its term.

Our 2006 Plan provides that in the event of a change of control, all awards granted under the 2006 Plan shall become fully vested and exercisable (as applicable), unless the board of directors determines otherwise. In the event of a change of control, the administrator may take any of the following actions with respect to any or all outstanding awards: (i) determine that all outstanding options and stock appreciation rights that are not exercised shall be assumed by, or replaced with comparable options by the surviving corporation (or a parent or subsidiary of the surviving corporation), and other outstanding grants that remain in effect after the change of control shall be converted to similar grants of the surviving corporation (or a parent or subsidiary of the surviving corporation), require that grantees surrender their outstanding options and stock appreciation rights in exchange for one or more payments, in cash or Company stock as determined by the board of directors, in an amount, if any, equal to the amount by which the then fair market value of the shares of Company stock subject to the grantee's unexercised options and stock appreciation rights exceeds the exercise price or base amount of the options and stock appreciation rights, on such terms as the board of directors determines, or (iii) after giving grantees an opportunity to exercise their outstanding options and stock appreciation rights, terminate any or all unexercised options and stock appreciation rights at such time as the board of directors deems appropriate.

Such assumption, surrender or termination shall take place as of the date of the change of control or such other date as the board of directors may specify.

Under the 2006 Plan, a change of control is generally (1) the acquisition by any person or company of more than 50% of the combined voting power of our then outstanding stock, (2) the consummation of a merger or consolidation with another corporation where our stockholders, immediately prior to the merger or consolidation, will not beneficially own, immediately after the merger or consolidation, shares entitling such stockholders to more than 50% of all votes to which all stockholders of the surviving corporation would be entitled in the election of directors, (3) the consummation of a sale or other disposition of all or substantially all of our assets, or (4) the consummation of a liquidation or dissolution.

### ***2018 Employee Stock Purchase Plan***

Additional long-term equity incentives are provided through the 2018 Employee Stock Purchase Plan, or the ESPP, which became effective in connection with the IPO. The ESPP is intended to qualify as an "employee stock purchase plan" within the meaning of Section 423 of the Code. Our compensation committee has the authority, concurrent with our Board, to administer the ESPP. Under the ESPP, generally all of our regular employees (including our Named Executive Officers during their employment with us) may participate and may contribute, normally through payroll deductions, up to 15% of their earnings for the purchase of our common stock.

The ESPP is implemented through a series of offerings of purchase rights to eligible employees. Under the ESPP, we may specify offerings with a duration of not more than 27 months, and may specify shorter purchase periods within each offering. Each offering will have one or more purchase dates on which our common stock will be purchased for employees participating in the offering. Unless otherwise determined by our compensation committee, shares are purchased for accounts of employees participating in the ESPP at a price per share equal to the lower of (a) 85% of the fair market value of our common stock on the first date of an offering or (b) 85% of the fair market value of our common stock on the date of purchase.

## 401(k) Plan

We maintain a defined contribution employee retirement plan, or 401(k) plan, for our employees. Our named executive officers are eligible to participate in the 401(k) plan on the same basis as our other employees. The 401(k) plan is intended to qualify as a tax-qualified plan under Section 401(k) of the Code. The plan permits us to make discretionary contributions, including matching contributions and discretionary profit sharing contributions. The 401(k) plan currently does not offer the ability to invest in our securities.

## Director Compensation

Our Board adopted a non-employee director compensation policy in July 2018 that became effective upon the IPO and is applicable to each member of our Board who is not also serving as an employee or consultant to the Company. This compensation policy provides that each such non-employee director will receive the following compensation for service on our Board:

- an annual cash retainer of \$30,000;
- an additional annual cash retainer of \$20,000 for service as chairman of the board of directors;
- an additional annual cash retainer of \$15,000, \$10,000 and \$10,000 for service as chair of the Audit Committee, Compensation Committee and the Nominating and Corporate Governance Committee, respectively;
- an additional annual cash retainer of \$7,500, \$5,000 and \$5,000 for service as a member of the Audit Committee, Compensation Committee and the Nominating and Corporate Governance Committee, respectively (not applicable to committee chairs);
- an initial option grant to purchase common stock with an aggregate Black-Scholes option value of \$50,000 on the date of each such non-employee director's appointment to our Board; and
- an annual option grant to purchase common stock with an aggregate Black-Scholes option value of \$35,000 on the date of each of our annual stockholder meetings.

In response to the COVID-19 pandemic, the Compensation Committee of the Board approved a temporary modification to our non-employee director compensation policy such that, effective April 22, 2020 through December 31, 2020, the price of our common stock to be used for the Black-Scholes calculation discussed above shall be the greater of (i) \$1.04 (the closing price of our common stock on February 18, 2020, the most recent date on which we granted stock options with an exercise price not substantially affected by the impacts of the COVID-19 pandemic on our stock price) and (ii) the closing price of our common stock on the date of grant.

Each of the option grants described above will be granted under our 2018 Plan, the terms of which are described in more detail above under "Equity Benefit Plans." Each such option grant will vest and become exercisable subject to the director's continuous service to us, provided that each option will vest in full upon a change in control (as defined in the 2018 Plan). The term of each option will be 10 years, subject to earlier termination as provided in the 2018 Plan, provided that upon a termination of service other than for death, disability or cause, the post-termination exercise period will be 12 months from the date of termination. An eligible director may decline all or any portion of his or her compensation by giving notice to the Company prior to the date cash may be paid or equity awards are to be granted, as the case may be.

We have reimbursed and will continue to reimburse all of our non-employee directors for their reasonable out-of-pocket expenses incurred in attending board of directors and committee meetings. Dr. Holmlin, our President and Chief Executive Officer, is also a director but did not receive any additional compensation for his service as a director.

The following table sets forth in summary form information concerning the compensation that was earned by each of our non-employee directors during the year ended December 31, 2020:

NAME	FEES EARNED OR PAID IN CASH	OPTION AWARDS (\$) <sup>(1)</sup>	TOTAL (\$)
David L. Barker, Ph.D.	\$61,875	\$35,000	\$96,875
Hannah Mamuszka <sup>(2)</sup>	\$10,625	\$85,000	\$95,625
Albert Luderer, Ph.D.	\$45,892	\$35,000	\$80,892
Christopher Twomey	\$41,250	\$35,000	\$76,250
Yvonne Linney, Ph.D. <sup>(2)</sup>	\$10,625	\$85,000	\$95,625
Kristiina Vuori, M.D., Ph.D.	\$32,500	\$35,000	\$67,500

(1) The amounts reported reflect the aggregate grant date fair value of each equity award granted to our non-employee directors during the fiscal year ended December 31, 2020, as determined in accordance with the provisions of FASB ASC Topic 718. The valuation assumptions used in calculating these amounts are included in the notes to our consolidated financial statements included elsewhere in the Annual Report. As required by SEC rules, the amounts shown exclude the impact of estimated forfeitures related to service-based vesting conditions. These amounts do not reflect the actual economic value that will be realized by our non-employee directors upon the vesting of the stock options, the exercise of the stock options, or the sale of the common stock underlying such stock options. As of December 31, 2020, the aggregate number of shares outstanding under all options to purchase our common stock held by our non-employee directors were: Dr. Barker, 90,287; Dr. Luderer 86,078; Mr. Twomey 76,897; Dr. Vuori 74,744, Ms. Mamuszka 125,393, and Dr. Linney 125,393.

(2) Ms. Mamuszka and Dr. Linney were appointed to our board of directors in May 2020.

**RELATED-PERSON TRANSACTIONS POLICY AND PROCEDURES**

In 2018, the Company adopted a written Related-Person Transactions Policy that sets forth the Company's policies and procedures regarding the identification, review, consideration and approval or ratification of "related-persons transactions." For purposes of the Company's policy only, a "related-person transaction" is a transaction, arrangement or relationship (or any series of similar transactions, arrangements or relationships) in which the Company and any "related person" are participants involving an amount that exceeds \$120,000.

Transactions involving compensation for services provided to the Company as an employee, director, consultant or similar capacity by a related person are not covered by this policy. A related person is any executive officer, director, or more than 5% stockholder of the Company, including any of their immediate family members, and any entity owned or controlled by such persons.

Under the policy, where a transaction has been identified as a related-person transaction, management must present information regarding the proposed related-person transaction to the Audit Committee (or, where Audit Committee approval would be inappropriate, to another independent body of the Board) or the Board for consideration and approval or ratification. The presentation must include a description of, among other things, all of the parties, the direct and indirect interests of the related parties, the purpose of the transaction, the material facts, the benefits of the transaction to us and whether any alternative transactions are available, an assessment of whether the terms are comparable to the terms available from unrelated third parties and management's recommendation. To identify related-person transactions in advance, the Company relies on information supplied by its executive officers, directors and certain significant stockholders. In considering related-person transactions, the Audit Committee takes into account the relevant available facts and circumstances including, but not limited to (a) the risks, costs and benefits to the Company, (b) the impact on a director's independence in the event the related person is a director, immediate family member of a director or an entity with which a director is affiliated, (c) the terms of the transaction, (d) the availability of other sources for comparable services or products and (e) the terms available to or from, as the case may be, unrelated third parties or to or from employees generally.

In the event a director has an interest in the proposed transaction, the director must recuse himself or herself from the deliberations and approval. The policy requires that, in determining whether to approve, ratify or reject a related-person transaction, the Audit Committee consider, in light of known circumstances, whether the transaction is in, or is not inconsistent with, the best interests of the Company and its stockholders, as the Audit Committee determines in the good faith exercise of its discretion.

**CERTAIN RELATED-PERSON TRANSACTIONS**

Other than compensation arrangements for our directors and executive officers, which are described above under the heading "Executive and Director Compensation," there were no transactions since January 1, 2019 to which we were a party or will be a party, in which:

- the amounts involved exceeded or will exceed the lesser of (a) \$120,000 or (b) 1% of the average of our total assets for the fiscal years ended December 31, 2019 or 2020; and
- any of our directors, executive officers or holders of more than 5% of our capital stock, or any member of the immediate family of, or person sharing the household with, the foregoing persons, had or will have a direct or indirect material interest.

**Indemnification Agreements**

We have entered, and intend to continue to enter, into separate indemnification agreements with our directors and executive officers, in addition to the indemnification provided for in our amended and restated bylaws. These agreements, among other things, require us to indemnify our directors and executive officers for certain expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by a director or executive officer in any action or proceeding arising out of their services as one of our directors or executive officers or as a director or executive officer of any other company or enterprise to which the person provides services at our request. We believe that these bylaw provisions and indemnification agreements are necessary to attract and retain qualified persons as directors and officers.

The limitation of liability and indemnification provisions in our amended and restated certificate of incorporation and amended and restated bylaws may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duties. They may also reduce the likelihood of derivative litigation against directors and officers, even though an action, if successful, might benefit us and our stockholders. A stockholder's investment may decline in value to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions.

## HOUSEHOLDING OF PROXY MATERIALS

The SEC has adopted rules that permit companies and intermediaries (e.g., brokers) to satisfy the delivery requirements for Notices of Internet Availability of Proxy Materials or other Annual Meeting materials with respect to two or more stockholders sharing the same address by delivering a single Notice of Internet Availability of Proxy Materials or other Annual Meeting materials addressed to those stockholders. This process, which is commonly referred to as “householding,” potentially means extra convenience for stockholders and cost savings for companies.

This year, a number of brokers with account holders who are Bionano stockholders will be “householding” the Company’s proxy materials. A single Notice of Internet Availability of Proxy Materials will be delivered to multiple stockholders sharing an address unless contrary instructions have been received from the affected stockholders.

Once you have received notice from your broker that they will be “householding” communications to your address, “householding” will continue until you are notified otherwise or until you revoke your consent. If, at any time, you no longer wish to participate in “householding” and would prefer to receive a separate Notice of Internet Availability of Proxy Materials, please notify your broker or Bionano. Direct your written request to the attention of the Secretary of Bionano Genomics, Inc., 9540 Towne Centre Drive, Suite 100, San Diego, CA 92121 or call us at 858-888-7600. Stockholders who currently receive multiple copies of the Notice of Internet Availability of Proxy Materials at their addresses and would like to request “householding” of their communications should contact their brokers.



## OTHER MATTERS

The Board knows of no other matters that will be presented for consideration at the Annual Meeting. If any other matters are properly brought before the Annual Meeting, it is the intention of the persons named in the accompanying proxy to vote on such matters in accordance with their best judgment.

By Order of the Board of Directors

/s/ R. Erik Holmlin, Ph.D.

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R. Erik Holmlin, Ph.D.

Secretary

April 27, 2021

**A copy of the Company's Annual Report to the Securities and Exchange Commission on Form 10-K for the fiscal year ended December 31, 2020 is available without charge upon written request to: Secretary of Bionano Genomics, Inc., 9540 Towne Centre Drive, Suite 100, San Diego, CA 92121.**

# bionano GENOMICS

BIONANO GENOMICS, INC.  
9540 TOWNE CENTRE DRIVE  
SUITE 100  
SAN DIEGO, CA 92121

## VOTE BY INTERNET

Before The Meeting - Go to [www.proxyvote.com](http://www.proxyvote.com)

Use the Internet to transmit your voting instructions and for electronic delivery of information up until 11:59 p.m. Eastern Time on June 9, 2021. Have your proxy card in hand when you access the web site and follow the instructions to obtain your records and to create an electronic voting instruction form.

During The Meeting - Go to [www.virtualshareholdermeeting.com/BNGO2021](http://www.virtualshareholdermeeting.com/BNGO2021)

You may attend the meeting via the Internet and vote during the meeting. Have the information that is printed in the box marked by the arrow available and follow the instructions.

## VOTE BY PHONE - 1-800-690-6903

Use any touch-tone telephone to transmit your voting instructions up until 11:59 p.m. Eastern Time on June 9, 2021. Have your proxy card in hand when you call and then follow the instructions.

## VOTE BY MAIL

Mark, sign and date your proxy card and return it in the postage-paid envelope we have provided or return it to Vote Processing, c/o Broadridge, 51 Mercedes Way, Edgewood, NY 11717.

TO VOTE, MARK BLOCKS BELOW IN BLUE OR BLACK INK AS FOLLOWS:

D48273-P53544

KEEP THIS PORTION FOR YOUR RECORDS  
DETACH AND RETURN THIS PORTION ONLY

**THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.**

### BIONANO GENOMICS, INC.

The Board of Directors recommends you vote FOR the following:

1. Election of Class III Directors

<b>For All</b>	<b>Withhold All</b>	<b>For All Except</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

To withhold authority to vote for any individual nominee(s), mark "For All Except" and write the number(s) of the nominee(s) on the line below.

#### Nominees:

- 01) Christopher Twomey  
02) Yvonne Linney, Ph.D.

The Board of Directors recommends you vote FOR proposal 2.

2. To ratify the selection of BDO USA, LLP by the Audit Committee of the Board of Directors to serve as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2021.

**For    Against    Abstain**

      

**NOTE:** In their best judgment, 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 but the card is signed, this proxy will be voted FOR all nominees in proposal 1 and FOR proposal 2.

Please sign exactly as your name(s) appear(s) hereon. When signing as attorney, executor, administrator, or other fiduciary, please give full title as such. Joint owners should each sign personally. All holders must sign. If a corporation or partnership, please sign in full corporate or partnership name by authorized officer.

--	--

Signature [PLEASE SIGN WITHIN BOX]

Date

--	--

Signature (Joint Owners)

Date

**Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting:**

The Notice and Proxy Statement and Annual Report are available at [www.proxyvote.com](http://www.proxyvote.com).

D48274-P53544

**BIONANO GENOMICS, INC.  
Annual Meeting of Stockholders  
June 10, 2021, 10:00 AM (Pacific Time)  
This proxy is solicited on behalf of the Board of Directors**

The undersigned hereby appoints R. Erik Holmlin, Ph.D. and Christopher Stewart, and each or either of them, as the true and lawful attorneys of the undersigned, with full power of substitution and revocation, and authorizes them, and each of them, to represent and to vote, as designated on the reverse side of this ballot, all the shares of capital stock of Bionano Genomics, Inc. which the undersigned is entitled to vote at the Annual Meeting of Stockholders to be held virtually, via live webcast at [www.virtualshareholdermeeting.com/BNGO2021](http://www.virtualshareholdermeeting.com/BNGO2021), on Thursday, June 10, 2021, at 10:00 AM Pacific Time, and any adjournment or postponement thereof.

**This proxy, when properly executed, will be voted in the manner directed herein. If no such direction is made, this proxy will be voted in accordance with the Board of Directors' recommendations.**

**In their discretion, the proxies are authorized to vote upon such other business as may properly come before the meeting.**

**Votes must be received by 11:59 P.M., Eastern Time, on June 9, 2021.**

**Continued and to be signed on reverse side**