

**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**

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 all boxes that apply):

- No fee required.
 - Fee paid previously with preliminary materials.
 - Fee computed on table in exhibit required by Item 25(b) per Exchange Act Rules 14a-6(i)(1) and 0-11.
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BIONANO GENOMICS, INC.

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



NOTICE OF ANNUAL MEETING OF STOCKHOLDERS

To Be Held On Tuesday, June 18, 2024

Dear Stockholders:

You are cordially invited to attend the 2024 Annual Meeting of Stockholders (the “Annual Meeting”) of Bionano Genomics, Inc., a Delaware corporation (the “Company”), to be held on Tuesday, June 18, 2024, at 10:00 a.m. Pacific Time. The Annual Meeting will be held in a virtual meeting format only, via live audio webcast. You will be able to attend and participate in the Annual Meeting online by visiting www.virtualshareholdermeeting.com/BNGO2024, where you will be able to listen to the meeting live, submit questions and vote. You will need to have the control number included in the Notice of Internet Availability of Proxy Materials, on your voting instruction form, on your proxy card or on the instructions that accompanied your proxy materials to join the virtual Annual Meeting. **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 three nominees for Class III director named in the accompanying proxy statement, each to hold office until the 2027 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 approve, on an advisory basis, the compensation of the Company’s named executive officers, as disclosed in the accompanying proxy statement. We refer to this proposal as the “Say-On-Pay Proposal” or “Proposal 2.”
3. To ratify the selection of BDO USA, P.C. 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, 2024. We refer to this proposal as the “Auditor Ratification Proposal” or “Proposal 3.”
4. 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 held virtually through a live audio webcast. To participate, vote or submit questions during the Annual Meeting, please visit www.virtualshareholdermeeting.com/BNGO2024. **You will not be able to attend the Annual Meeting in person.**

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The record date for the Annual Meeting is Monday, April 22, 2024. Stockholders of record must have the control number included in your Notice of Internet Availability of Proxy Materials or on your proxy card if you receive the proxy materials by mail. If your shares are held in street name and your voting instruction form or Notice of Internet Availability of Proxy Materials indicates that you may vote those shares through the <http://www.ProxyVote.com> website, then you may access, participate in, and vote at the Annual Meeting with the control number indicated on that voting instruction form or Notice of Internet Availability of Proxy Materials. Otherwise, stockholders who hold their shares in street name should contact their bank, broker, or other nominee (preferably at least five days before the Annual Meeting) and obtain a “legal proxy” in order to be able to participate in or vote at the Annual Meeting.

Important Notice Regarding the Availability of Proxy Materials for the Stockholders’ Meeting to Be Held on Tuesday, June 18, 2024 at 10:00 a.m. Pacific Time via live audio webcast at www.virtualshareholdermeeting.com/BNGO2024.

The proxy statement and annual report to stockholders are available at www.proxyvote.com.

By Order of the Board of Directors,

/s/ Jonathan Dixon

Jonathan Dixon

Secretary

San Diego, California
April 26, 2024

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.

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

**PROXY STATEMENT
FOR THE 2024 ANNUAL MEETING OF STOCKHOLDERS**

To Be Held on Tuesday, June 18, 2024

Our Board of Directors (sometimes referred to as the “Board”) is soliciting your proxy to vote at the 2024 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 audio webcast at www.virtualshareholdermeeting.com/BNGO2024, on Tuesday, June 18, 2024, at 10:00 a.m. Pacific Time, and any one or more adjournments or postponements 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, 2023 (the “Annual Report”), to our stockholders primarily via the Internet. On or about Friday, April 26, 2024, 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.

Stockholders of record at the close of business on Monday, April 22, 2024 (the “Record Date”) will be entitled to vote at the Annual Meeting. On the Record Date, there were 66,856,804 shares of common stock outstanding. 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 Annual Report, which contains consolidated financial statements as of and for the fiscal year ended December 31, 2023, 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.

MEETING AGENDA

Proposals	Page	Board Recommendation
Proposal 1: Election of the three nominees for Class III director named herein, each to hold office until the 2027 Annual Meeting of Stockholders or until a successor is duly elected and qualified or until the director’s earlier death, resignation or removal (the “Director Election Proposal”).	13	For each director nominee
Proposal 2: Approval, on an advisory basis, of the compensation of the Company’s named executive officers as disclosed herein (the “Say-on-Pay Proposal”).	30	For
Proposal 3: Ratification of the selection of BDO USA, P.C. 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, 2024 (the “Auditor Ratification Proposal”).	31	For

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QUESTIONS AND ANSWERS ABOUT THESE PROXY MATERIALS AND VOTING

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 one or more 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 Friday, April 26, 2024 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 Monday, May 6, 2024.

Where and when is the Annual Meeting?

The Annual Meeting will be held on Tuesday, June 18, 2024, at 10:00 a.m. Pacific Time. The Annual Meeting will be held in a virtual meeting format only, via live audio 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 via audio webcast at www.virtualshareholdermeeting.com/BNGO2024. The webcast will begin at 10:00 a.m. Pacific Time.
- Stockholders of record as of the Record Date may vote during the Annual Meeting via live audio webcast.
- To enter the meeting, please enter your control number.
- If you do not have your 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 are posted at www.virtualshareholdermeeting.com/BNGO2024.

We recommend that you log in approximately 5 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 2023.

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 control number included on your Notice, voting instruction form 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 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 are posted at www.virtualshareholdermeeting.com/BNGO2024.

For the Annual Meeting, how do we ask questions of management and the Board?

Stockholders may submit questions relevant to the proposals to be voted on at the Annual Meeting in advance of the Annual Meeting through www.virtualshareholdermeeting.com/BNGO2024. We plan to spend up to 15 minutes answering appropriate stockholder questions at the conclusion of the Annual Meeting and will include as many stockholder questions that comply with the rules of conduct for the Annual Meeting as the allotted time permits. If we receive substantially similar questions, we will group such questions together and provide a single response to avoid repetition. Questions that are not relevant to the proposals to be voted on at the Annual Meeting will not be responded to. Stockholders of record as of the Record Date may also submit questions beginning 15 minutes prior to and during the Annual Meeting by logging in to www.virtualshareholdermeeting.com/BNGO2024 and entering the control number included on the Notice, voting instruction form or proxy card.

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

On the day of the Annual Meeting, if you encounter any difficulties accessing the live audio 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?

On the Record Date, there were 66,856,804 shares of common stock outstanding and entitled to vote. Only stockholders of record on the Record Date will be entitled to vote at the Annual Meeting.

Stockholder of Record: Shares Registered in Your Name

If on the Record Date, your shares were registered directly in your name with our transfer agent, Equiniti Trust Company, LLC (f/k/a 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 the Record Date 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 should be 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, dealer or other agent regarding how to vote the shares in your account. You must follow the instructions provided by your brokerage firm, bank, or other similar organization for your bank, broker or other stockholder of record to vote your shares per your instructions. Alternatively, many brokers and banks provide the means to grant proxies or otherwise instruct them to vote your shares by telephone and via the Internet, including by providing you with a 16-digit control number via email or on your Notice or your voting instruction form. If your shares are held in an account with a broker, bank or other stockholder of record providing such a service, you may instruct them to vote your shares by telephone (by calling the number provided in the proxy materials) or over the Internet as instructed by your broker, bank or other stockholder of record. If you did not receive a 16-digit control number via email or on your Notice or voting instruction form, and you wish to vote prior to or at the virtual Annual Meeting, you must follow the instructions from your broker, bank or other stockholder of record, including any requirement to obtain a valid legal proxy. Many brokers, banks and other stockholders of record allow a beneficial owner to obtain a valid legal proxy either online or by mail, and we recommend that you contact your broker, bank or other stockholder of record to do so.

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 the Record Date.

What am I voting on?

There are three matters scheduled for a vote:

- Proposal 1: Election of the three nominees for Class III director named herein, each to hold office until the 2027 Annual Meeting of Stockholders or until a successor is duly elected and qualified or until the director’s earlier death, resignation or removal;
- Proposal 2: Approval, on an advisory basis, of the compensation of the Company’s named executive officers as disclosed herein; and
- Proposal 3: Ratification of the selection of BDO USA, P.C. 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, 2024.

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

The Board does not know of any other matters to be brought before 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. This discretionary authority is granted when you sign the form of proxy.

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 on the Record Date, 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 to complete an electronic proxy card. You will be asked to provide the control number from the Notice, voting instruction form or proxy card. Your Internet vote must be received by 11:59 p.m., Eastern Time on Monday, June 17, 2024 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, voting instruction form or proxy card. Your telephone vote must be received by 11:59 p.m., Eastern Time on Monday, June 17, 2024 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/BNGO2024, starting at 10:00 a.m. Pacific Time on Tuesday, June 18, 2024.

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 broker, bank, dealer or other agent, you should have received the Notice or voting instruction form containing voting instructions from that organization rather than from us. Simply follow the voting instructions in the Notice or voting instruction form 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 will need the control number included on your Notice, on your proxy card or on the instructions that accompanied your proxy materials.

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.

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” Proposal 1, the election of all three nominees for director (the “Director Election Proposal”), “For” Proposal 2, the advisory vote on executive compensation (the “Say-on-Pay

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Proposal”), and “For” Proposal 3, the ratification of the appointment by the Audit Committee of the Board of BDO USA, P.C. as our independent registered public accounting firm for the fiscal year ending December 31, 2024 (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 of shares held in street name and you do not instruct your broker how to vote your shares, the question of whether your broker will still be able to vote your shares depends on whether the New York Stock Exchange (“NYSE”) deems the particular proposal to be a “routine” matter. Although our shares are not listed with the NYSE, the NYSE regulates broker-dealers and their discretion to vote on stockholder proposals. Under the NYSE rules applicable to brokers and other similar organizations that are subject to NYSE rules, such organizations may use their discretion to vote your “uninstructed shares” with respect to matters considered to be “routine” under NYSE rules, but not with respect to “non-routine” matters. Under such 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. In this regard, the NYSE has advised us that Proposal 1 (the Director Election Proposal) and Proposal 2 (the Say-on-Pay Proposal) are each considered “non-routine” and, accordingly, your broker may not vote your shares on such proposals without your instructions. The NYSE has also advised us that Proposal 3 (the Auditor Ratification Proposal) is considered “routine” and, accordingly, your broker may vote your shares on such proposal without instructions from you. Nevertheless, whether a proposal is “routine” or “non-routine” remains subject to the final determination of the NYSE. If your shares are held by a bank, your shares cannot be voted without your specific instructions.

What are “broker non-votes”?

As discussed above, when a beneficial owner of shares held in “street name” does not give voting instructions to his or her broker, bank or other agent holding his or her shares as to how to vote on matters deemed to be “non-routine”, the broker, bank or other securities intermediary cannot vote the shares. When there is at least one “routine” matter that the broker, bank or other securities intermediary votes on, the shares that are un-voted on “non-routine” matters are counted as “broker non-votes.” Proposal 3 (the Auditor Ratification Proposal) is a “routine” matter and we therefore expect brokers, banks or other securities intermediaries to vote on that proposal. Proposal 1 (the Director Election Proposal) and Proposal 2 (the Say-on-Pay Proposal) are considered to be “non-routine” and we therefore expect broker non-votes to exist in connection with each proposal.

Accordingly, 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 or bank by the deadline provided in the materials you receive from your broker or bank.

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 and 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 \$20,000 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 current 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 broker, bank, or other agent you should follow the instructions provided by your broker, bank, or other agent.

How are votes counted?

Each share of our common stock you own entitles you to one vote. The inspector of elections will count votes for the meeting.

With respect to Proposal 1 (the Director Election Proposal), the inspector of elections will separately count votes “For,” “Withhold” and, if applicable, broker non-votes. 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 and the inspector of elections will count each “Withhold” vote for each nominee. Because our Bylaws provide for a plurality vote standard for Proposal 1 (Director Election Proposal), only votes “For” a nominee will affect the outcome of the vote.

With respect to Proposal 2 (the Say-On-Pay Proposal) and Proposal 3 (the Auditor Ratification Proposal), the inspector of elections will separately count votes “For” and “Against,” abstentions and, as applicable, broker non-votes.

Abstentions will be counted towards the vote total and will have the same effect as “Against” votes for Proposal 2 (the Say-On-Pay Proposal) and Proposal 3 (the Auditor Ratification Proposal). You will not have the option to abstain from Proposal 1 (the Director Election Proposal). Withhold votes will not affect the outcome of Proposal 1.

Broker non-votes will be counted towards the presence of a quorum but will have no effect and will not be counted towards the vote total for Proposal 1 (the Director Election Proposal) and Proposal 2 (the Say-On-Pay Proposal) because we have been advised by the NYSE that these proposals are considered “non-routine” under NYSE rules, and accordingly, your broker may not vote your shares on such proposals without instructions from you. In the event any broker non-votes are received on Proposal 1 (the Director Election Proposal), they will have no effect on such proposal because the voting standard on Proposal 1 (the Director Election Proposal) counts only votes cast and a broker non-vote is not a vote cast under Delaware law. In the event any broker non-votes are received on Proposal 2 (the Say-On-Pay Proposal), they will have no effect because broker non-votes are not considered entitled to vote on such proposal under Delaware law. We do not anticipate broker non-votes for Proposal 3 (the Auditor Ratification Proposal) because we have been advised by the NYSE that this proposal is considered “routine” under NYSE rules, and accordingly, your broker may vote your shares on such proposals without instructions from you. Nevertheless, whether a proposal is “routine” or “non-routine” remains subject to the final determination of the NYSE. If your shares are held by a bank, your shares cannot be voted without your specific instructions.

What vote is required for adoption or approval of each proposal and how will votes be counted?

The following table summarizes the minimum vote needed to approve each proposal and the effect of abstentions and broker non-votes.

Proposal Number	Proposal Description	Vote Required for Approval	Voting Options	Effect of Abstentions or Withhold Votes, as applicable	Effect of Broker Non-Votes	Board Recommendation
1	Director Election Proposal	Nominees receiving the most “For” votes will be elected.	FOR or WITHHOLD	No effect	No effect	FOR all nominees
2	Say-on-Pay Proposal	“For” votes from the holders of a majority of the voting power of the shares present by virtual attendance or represented by proxy and entitled to vote on the matter.	FOR, AGAINST, or ABSTAIN	Against	No effect	FOR
3	Auditor Ratification Proposal	“For” votes from the holders of a majority of the voting power of the shares present by virtual attendance or represented by proxy and entitled to vote on the matter.	FOR, AGAINST, or ABSTAIN	Against	Not applicable. Brokers are permitted to vote on this proposal	FOR

What is the quorum requirement?

A quorum of stockholders is necessary to hold the Annual Meeting. The presence, by virtual attendance or by proxy, of the holders of one-third in voting power of the shares of common stock issued and outstanding on the Record Date and entitled to vote at a meeting of stockholders will constitute a quorum for the transaction of business at the Annual Meeting. On the Record Date, there were 66,856,804 shares of common stock outstanding and entitled to vote. **Thus, the holders of 22,285,602 shares of common stock 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 broker, bank, dealer or other agent) or if you vote online during the Annual Meeting. Abstentions and broker non-votes, if any, will be counted towards the quorum requirement. If there is no quorum, the chair of the Annual Meeting or the holders of a majority of shares of our common stock 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.

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 Friday, December 27, 2024, 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 18, 2025 and March 20, 2025. You are also advised to review the Company’s amended and restated bylaws (the “Bylaws”), which contain additional requirements relating to advance notice of stockholder proposals and director nominations.

In addition to satisfying the foregoing requirements under our Bylaws, to comply with the universal proxy rules, stockholders who intend to solicit proxies in support of director nominees other than our Board’s nominees must also comply with the additional requirements of Rule 14a-19(b) promulgated under the Securities Exchange Act of 1934, as amended (the “Exchange Act”).

PROPOSAL 1: ELECTION OF DIRECTORS

Pursuant to our Amended and Restated Certificate of Incorporation, as amended (the “Certificate of Incorporation”) and Bylaws, the Board is divided into three classes, with only one class of directors being elected in each year and each class, Class I, Class II and Class III, serving a three-year term. Each Class III director has a term that expires at this Annual Meeting, each Class I director has a term that expires at the Company’s 2025 annual meeting of stockholders and each Class II director has a term that expires at the Company’s 2026 annual meeting of stockholders, or in each case until their respective successors are duly elected and qualified, or until their earlier death, resignation, or removal. Each class consists, as nearly as possible, of one-third of the total number of directors. 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 nine members. There are three Class III directors whose term of office expire in 2024: Yvonne Linney, Ph.D., Aleksandar Rajkovic, M.D., Ph.D., and Christopher Twomey. Proxies may not be voted for a greater number of persons than the number of nominees named in this proxy statement. Each of the nominees is currently a director of the Company who was previously elected by the stockholders. Each of Dr. Linney, Dr. Rajkovic and Mr. Twomey was recommended for nomination to the Board by the Nominating and Corporate Governance Committee of the Board (the “Nominating and Corporate Governance Committee”). If elected at the Annual Meeting, each of these nominees would serve until the 2027 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. It is the Company’s policy to encourage nominees for directors to attend the Annual Meeting. Three of the directors attended the 2023 Annual Meeting of Stockholders.

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 three 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 Dr. Linney, Dr. Rajkovic and Mr. Twomey. 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 Dr. Linney, Dr. Rajkovic and Mr. Twomey has agreed to serve if elected. The Company’s management has no reason to believe that any nominee will be unable to serve.

You will not have the option to abstain from this proposal. Broker non-votes will be counted towards the presence of a quorum but will have no effect and will not be counted towards the vote total for this proposal because we have been advised by NYSE that this proposal is considered “non-routine” under NYSE rules, and accordingly, your broker may not vote your shares on such proposal without instructions from you. Nevertheless, whether a proposal is “routine” or “non-routine” remains subject to the final determination of NYSE. If your shares are held by a bank, we believe your shares cannot be voted without your specific instructions.

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

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Corporate Governance Committee may have a variety of reasons why he or she 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 the Company
<i>Class I directors, whose terms will expire at the 2025 Annual Meeting of Stockholders</i>		
R. Erik Holmlin, Ph.D.	56	President, Chief Executive Officer and Director
David L. Barker, Ph.D. ⁽¹⁾⁽⁴⁾	82	Chairman, Director
Vincent J. Wong, J.D., M.B.A. ⁽²⁾	52	Director
<i>Class II directors whose terms will expire at the 2026 Annual Meeting of Stockholders</i>		
Albert Luderer, Ph.D. ⁽²⁾⁽³⁾⁽⁴⁾	75	Director
Kristiina Vuori, M.D., Ph.D. ⁽¹⁾⁽³⁾⁽⁴⁾	56	Director
Hannah Mamuszka ⁽¹⁾	47	Director
<i>Class III directors for election at the Annual Meeting</i>		
Christopher Twomey ⁽²⁾	64	Director
Yvonne Linney, Ph.D. ⁽³⁾	62	Director
Aleksandar Rajkovic, M.D., Ph.D. ⁽⁴⁾	60	Director

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

(2) Member of the Audit Committee

(3) Member of the Nominating and Corporate Governance Committee

(4) Member of Science and Technology 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 2027 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 public 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. Mr. Twomey served as a director of Senomyx, Inc., a taste technologies company, from March 2006 to November 2018 (when it was acquired by Firmenich SA). 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 B.A. 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 2019, Dr. Linney has served as Principal at Linney BioConsulting, a private strategy development firm. Dr. Linney has also served as a member of the board of Sengenics Corporation, a private company developing tools for immunoprofiling for biodiscovery since January 2023. From January 2021 to September 2022, Dr. Linney served as Chief Operating Officer and member of the board of directors of Artificial, Inc., a private laboratory automation optimization software company, where she also served as a strategic advisor from

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September 2020 to January 2021. Dr. Linney has also served as a strategic advisor at the California Life Sciences Institute, a private life sciences membership organization, since March 2019, as a Boardroom Ready Member at Women in Bio, a private professional organization, since July 2019, and as a strategic advisor at Tag.bio, a private data science platform company, since January 2019. From December 2016 to November 2018, Dr. Linney served as the Chief Executive Officer and member of the board of directors of Transcriptic, Inc. (now Strateos, Inc.), a private robotic and cloud laboratory platform company, where she had previously served as Chief Operating Officer since October 2015. In addition, from November 2006 to January 2015, Dr. Linney served as Executive Vice President and General Manager, Life Science Solutions 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 holds a B.S. 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 30 years of experience in leadership roles in the life sciences and diagnostics industries qualify her to serve as a member of our Board.

Aleksandar Rajkovic, M.D., Ph.D. Dr. Rajkovic has served on our board of directors since February 2022. Since May 2018, Dr. Rajkovic has served as Chief Genomics Officer and Director of the Genomic Medicine Initiative at University of California San Francisco (“UCSF”). Dr. Rajkovic also serves as Medical Director and Chief of the Center for Genetic and Genomic Medicine for the UCSF Health System, serves as the Stuart Lindsay Distinguished Professor in Experimental Pathology at UCSF, serves on the board of directors for the American College of Medical Genetics Foundation, since April 2020, and on the scientific advisory board of Allelica, a private genomics software company, between February 2022 and February 2024. From July 2009 to May 2018, Dr. Rajkovic served as the Marcus Allen Hogge Chair in Reproductive Sciences and director of reproductive genetics at the Magee-Womens Hospital at University of Pittsburgh Medical Center. Dr. Rajkovic holds a B.S. in Chemistry from Johns Hopkins University and an M.D. and Ph.D. in Molecular Biology from Case Western Reserve University.

Our Nominating and Corporate Governance Committee and Board believe that Dr. Rajkovic’s extensive experience in the clinical application of genetic and genomic testing qualifies him to serve as a member of our Board.

**THE BOARD OF DIRECTORS RECOMMENDS
A VOTE “FOR” EACH NAMED NOMINEE FOR PROPOSAL 1.**

CLASS I DIRECTORS CONTINUING IN OFFICE UNTIL THE 2025 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. Dr. Holmlin has also served as a member of the board of directors of Innovatus Life Sciences Acquisition Corp, a blank check company seeking to effect a business combination with one or more businesses, since March 2021. 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, LLC, 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, Inc., which was acquired by Becton, Dickinson and Company; and a National Institutes of Health postdoctoral fellow at Harvard University. Dr. Holmlin received his B.S. 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 18 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 and will continue to serve as Chairman of our board of directors until the Annual Meeting. Dr. Barker has also served as a member of the board of directors of AmideBio, LLC, a private biotechnology company, since August 2011, and of Singular Genomics Systems, Inc., a public life science technology company, since June 2016. He has also served as a scientific advisor to LunaPBC, a public benefit corporation, since November 2017. Dr. Barker previously served as a member of the board of directors of Aspen Neuroscience, a private cell therapy company, from October 2018 to May 2021, IntegenX, Inc., a private DNA testing technology company, from June 2006 to March 2018 (when it was acquired by Thermo Fisher Scientific), and of Integrated Diagnostics, Inc., a private molecular diagnostics company, from October 2009 to August 2018 (when it was acquired by Biodesix, Inc.). He served as Vice President and Chief Scientific Officer at Illumina, Inc. ("Illumina") from 2000 to 2007, and on the Illumina scientific advisory board until May 2016. Dr. Barker was previously a member of the board of directors of NextBio, Inc. (acquired by Illumina in 2013), ProteinSimple, Inc. (acquired by Bio-Techne Corporation ("BT") in 2014) and Zephyrus Biosciences, Inc. (acquired by BT in 2016). Dr. Barker served from 1998 to 2000 as Vice President and Chief Science Advisor at Amersham Biosciences, now part of GE Healthcare. 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 B.S. 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.

Vincent J. Wong, J.D., M.B.A. Mr. Wong has served on our board of directors since December 2021. Since January 2024, Mr. Wong has served as the Chief Executive Officer and President of BioCrossroads, the industry consortium and venture fund for life sciences in Indiana. From March 2021 to January 2024, Mr. Wong served as Chief Commercial Officer at Geneoscopy Inc., a private company developing diagnostic tests for gastrointestinal health. From April 2005 to December 2020, Mr. Wong served in various leadership roles at Roche Diagnostics Corporation, the diagnostics division of Roche Holdings AG and its affiliated entities, including as Vice President of Sales, Point of Care Diagnostics, Vice President, Physician Office and Specialty Diagnostics, and Vice President, Strategy and Communications. Mr. Wong serves as an Executive in Residence at IU Ventures where he advises portfolio start-up companies. Mr. Wong holds a BA in Economics and Government from the University of Notre Dame, a JD from Indiana University Maurer School of Law, and an MBA from Northwestern University's Kellogg School of Management.

Our Nominating and Corporate Governance Committee and Board believe that Mr. Wong's extensive experience in leadership roles in the diagnostics industry qualifies him to serve as a member of our Board.

CLASS II DIRECTORS CONTINUING IN OFFICE UNTIL THE 2026 ANNUAL MEETING

Albert Luderer, Ph.D. Dr. Luderer has served on our board of directors since October 2011 and will serve as Chairman of our board of directors following the Annual Meeting. Since September 2013, Dr. Luderer has served as the Chief Executive Officer and a member of the board of directors of Indi Molecular, Inc., a private synthetic antibody technology company. He has also served as the Executive Chairman of the board of directors of Prostate Management Diagnostics Inc., a non-profit cancer research company, since January 2016, and as the Chairman of the board of directors and member of the compensation committee of AllerGenis, LLC, a private diagnostic company, since September 2021. Dr. Luderer previously served as the Chief Executive Officer of Integrated Diagnostics, Inc., a private molecular diagnostics company, from March 2010 to June 2018, when it was sold to Biodesix, 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 B.A. in Zoology from Drew University and his M.S. 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. Dr. Vuori has also served as President and Chief Executive Officer and as a member of the board of directors of Sanford Laboratories for Innovative Medicines (“Sanford Labs”) since January 2023. Sanford Labs is an independent, not-for-profit biomedical research institution with a mission to discover and deliver the next-generation of molecular medicines. Since January 1995, Dr. Vuori has also served as Professor, and since January 2010 as Pauline and Stanley Foster Distinguished Chair, at the National Cancer Institute-designated Cancer Center of Sanford Burnham Prebys Medical Discovery Institute (“SBP”), a non-profit research organization with programs in cancer, neurodegeneration, diabetes, and infectious, inflammatory, and childhood diseases. In addition, Dr. Vuori served as President and member of the board of directors of SBP from January 2010 to June 2022, and as the SBP’s interim Chief Executive Officer from January 2013 to September 2014, and from September 2017 to June 2020. She served as the SBP’s EVP for Scientific Affairs in 2008-2010, as Director of the Cancer Center in 2005-2013, and as Deputy Director of the Cancer Center in 2003-2005. Dr. Vuori has also served as a member of the board of directors of Inhibrx, Inc., a public biotechnology company, since October 2021, where she presently serves on the audit committee, and of Forian, Inc., a public health data analytics company, since March 2021, where she presently serves on the compensation committee. In addition, Dr. Vuori served on the board of directors of Sio Gene Therapies, Inc., a public gene therapy company, from October 2020 to April 2023, WebMD from July 2014 to September 2017 (when it was acquired by KKR & Co. Inc.) and of the California Institute for Regenerative Medicine, a governmental research institute, from January 2011 to December 2022. 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, Inc., a private company focused on creating partnerships between health insurance payors and diagnostic companies. Ms. Mamuszka also serves as an advisory board member of Carolina Health Informatics Program (CHIP), an interdisciplinary research and training program at the University of North Carolina, since January 2021 and served as a member of the board of directors of Circle Cardiovascular Imaging Inc., a private cardiac imaging company, from May 2021 to June 2022 (when it was acquired by Thomas Bravo). 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. 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. Prior to joining Exosome, Ms. Mamuszka served as Director of Strategic Business Development, Companion Diagnostics at Asuragen, Inc., a private company focused on diagnostics and therapeutics. From January 2005 to January 2010, Ms. Mamuszka served in various director level positions, most recently as Global Director for Pharmaceutical Services, at Oncotech Inc., then

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by acquisition, at Exiqon A/S. Ms. Mamuszka has previously held various laboratory positions at ArQule, Inc., Millennium Pharmaceuticals Inc., Organogenesis, Inc. and the National Cancer Institute. Ms. Mamuszka received her B.S. in neurobiology and physiology from the University of Maryland at College Park and her M.S. in molecular biology from Harvard University.

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.

**INFORMATION REGARDING
THE BOARD OF DIRECTORS AND CORPORATE GOVERNANCE**

DIRECTOR NOMINATION PROCESS AND QUALIFICATIONS

At this time, the Board believes that the classified board structure is in the best interests of the Company and its stockholders. The classified board structure and corresponding three-year terms are intended to ensure that our directors have sufficient institutional knowledge of our business, corporate strategy and corporate objectives while also allowing for corporate continuity and stability of the Board, promoting the balance of long-term and short-term interests of the Company and its stockholders. Our Board believes a three-year term in office also allows our directors to stay focused on long-term value creation. Further, our Board believes that a classified board structure enables us to attract and retain diverse and highly qualified individuals willing to commit the time and dedication necessary to understand our business, its operations and its competitive environment. For example, a substantial amount of diversity on our Board is represented by directors who have joined our Board in the last three years. The structure also safeguards us from third-party takeover attempts, as it will require a longer period to change majority control of the Board.

We believe that an effective board of directors should be made up of individuals who collectively provide an appropriate balance of diverse occupational and personal backgrounds and perspectives and who have a range of skills and expertise sufficient to provide guidance and oversight with respect to the Company's strategy and operations. Our Board and our Nominating and Corporate Governance Committee seek individuals with backgrounds and qualities that, when combined with those of our other directors, enhance our Board's effectiveness and result in the Board having a balance of knowledge, experience, and capability. Our Nominating and Corporate Governance Committee considers candidates who are recommended by its members, by other Board members, by stockholders, and by management, as well as those identified by third-party search firms retained to assist in identifying and evaluating possible candidates.

In assessing potential candidates, our Board and Nominating and Corporate Governance Committee will consider, among other factors, whether the candidate possesses relevant expertise to offer advice and guidance to management, has sufficient time to devote to the affairs of the Company, demonstrates excellence in the candidate's field, has the ability to exercise sound business judgment and is committed to representing the long-term interests of the Company's stockholders.

INDEPENDENCE OF THE BOARD OF DIRECTORS

Under the listing requirements and rules of the Nasdaq Stock Market ("Nasdaq"), independent directors must comprise a majority of our board of directors. In addition, the rules of Nasdaq require that, subject to specified exceptions, each member of a listed company's audit, compensation and nominating and corporate governance committees be independent. Under the rules of the Nasdaq, a director will only qualify as an "independent director" if, in the opinion of that company's board of directors, that person does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. Compensation Committee members must not have a relationship with us that is material to the director's ability to be independent from management in connection with the duties of a Compensation Committee member. Additionally, Audit Committee members must also satisfy the independence criteria set forth in Rule 10A-3 under the Exchange Act. To be considered independent for purposes of Rule 10A-3, a member of an audit committee of a listed company may not, other than in his or her capacity as a member of the audit committee of the board of directors or any other board committee, accept, directly or indirectly, any consulting, advisory or other compensatory fee from the listed company or any of its subsidiaries or be an affiliated person of the listed company or any of its subsidiaries.

Our Board has undertaken a review of the independence of the directors and considered whether any director has a material relationship with us that could compromise his or her ability to exercise independent judgment in carrying out his or her responsibilities. Based upon information requested from and provided by each director concerning such director's background, employment and affiliations, including family relationships, our board of directors determined that each of Dr. Barker, Mr. Wong, Dr. Luderer, Dr. Vuori, Ms. Mamuszka, Mr. Twomey, Dr. Linney and Dr. Rajkovic, representing eight of our nine directors, are "independent directors"

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as defined under current rules and regulations of the SEC and the listing standards of Nasdaq. In making these determinations, our Board considered the current and prior relationships that each non-employee director has with our company and all other facts and circumstances that our Board deemed relevant in determining their independence.

BOARD DIVERSITY

While we do not have a formal diversity policy in place, our Nominating and Corporate Governance Committee considers the diversity of the Board overall with respect to age, disability, gender identity or expression, ethnicity, military veteran status, national origin, race, religion, sexual orientation, and other backgrounds and experiences. Our Nominating and Corporate Governance Committee is committed to actively seeking out and will instruct any search firm it engages to identify, individuals who will contribute to the overall diversity of the Board to be included in the pool of candidates from which nominees to the Board are selected.

Our Board monitors the mix of skills and experience of its directors to help ensure it has the necessary tools to perform its oversight function effectively. The Board fully appreciates the value of a diversity of viewpoints, background and experiences as important to the selection of directors to enhance the Board’s cognitive diversity and quality of dialogue in the Boardroom.

We believe that our current directors possess diverse professional experiences, skills and backgrounds, in addition to, among other characteristics, high standards of personal and professional ethics and valuable knowledge of our business and our industry.

Below is our Nasdaq Board Diversity Matrix for the fiscal year 2024 and last year’s Board Diversity Matrix is available in our definitive proxy statement filed with the SEC on April 28, 2023. The following Board Diversity Matrix sets forth certain self-identified personal demographic characteristics of our directors.

Board Diversity Matrix (As of the Record Date)				
Total Number of Directors	9			
	Female	Male	Non-Binary	Did Not Disclose Gender
Part I: Gender Identity				
Directors	3	6	—	—
Part II: Demographic Background				
African American or Black	—	—	—	—
Alaskan Native or Native American	—	—	—	—
Asian	—	1	—	—
Hispanic or Latinx	—	1	—	—
Native Hawaiian or Pacific Islander	—	—	—	—
White	3	3	—	—
Two or More Races or Ethnicities	—	—	—	—
LGBTQ+	—			
Did Not Disclose Demographic Background	1			

BOARD LEADERSHIP STRUCTURE

On March 26, 2024, Dr. Barker informed the Board of his intent to step down as Chairman of the Board effective as of the date of the Annual Meeting, June 18, 2024, but to continue his service on the Board and his committee assignments. The Nominating and Corporate Governance Committee subsequently, with Dr. Luderer abstaining, recommended to the Board to appoint Dr. Luderer as Chairman of the Board, effective as of the date of the Annual Meeting and based on the recommendation of the Nominating and Corporate Governance Committee the Board appointed Dr. Luderer Chairman of the Board effective as of the date of the Annual Meeting, June 18, 2024. The Board has an independent Chairman 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

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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 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.

CHIEF EXECUTIVE OFFICER SUCCESSION AND BOARD REFRESHMENT

Under the charter of the Nominating and Corporate Governance Committee, the Nominating and Corporate Governance Committee is responsible for reviewing and recommending to the Board changes as needed to the Company's corporate governance principles, including items such as management succession, policies and principles for management selection and performance review, policies regarding succession in the event of an emergency or departure of our Chief Executive Officer, and Board diversity, tenure and refreshment. Our Board has adopted an emergency succession plan in the event of the sudden departure of our Chief Executive Officer and our Nominating and Corporate Governance Committee reviews it with our management annually. Our corporate governance principles provide, among other things, that our Compensation Committee is to conduct an annual review of the performance of our Chief Executive Officer. Our Nominating and Corporate Governance Committee and the Board seek to achieve a balance of Board director tenures in order to benefit from long-tenured directors' institutional knowledge and newly elected directors' fresh perspective and, towards this goal, monitors director tenure carefully. The Board believes an effective refreshment program must be continuous and ongoing as discussed below in "Information Regarding Committees of the Board of Directors—Nominating and Corporate Governance Committee."

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, including a determination of the nature and level of risk appropriate for the Company. Our Audit Committee has the responsibility to consider and discuss our major risks including financial risk exposures and cybersecurity risks and the steps our 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 nine times during the last fiscal year. Each Board member attended 75% or more of the aggregate number of meetings of the Board and the committees on which he or she served, that were held in 2023 during the period in which he or she served on our Board or their respective committees of our Board.

As required under the Nasdaq listing standards, in 2023, our independent directors met five times in regularly scheduled executive sessions at which only independent directors were present.

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INFORMATION REGARDING COMMITTEES OF THE BOARD OF DIRECTORS

The Board has four standing committees: an Audit Committee; a Compensation Committee; a Nominating and Corporate Governance Committee; and a Science and Technology Committee. The following table provides membership and meeting information for fiscal year 2023 for each of these committees of the Board:

Name	Audit	Compensation	Nominating and Corporate Governance	Science and Technology
R. Erik Holmlin, Ph.D.				
David L. Barker, Ph.D.		X*		X*
Yvonne Linney, Ph.D.			X	
Albert Luderer, Ph.D.	X		X*	X
Hannah Mamuszka		X		
Christopher Twomey	X*			
Kristiina Vuori, M.D., Ph.D.		X	X	X
Vincent J. Wong, J.D., M.B.A.	X			
Aleksandar Rajkovic, M.D., Ph.D.				X
Number of meetings in fiscal year 2023	4	4	3	4

* Committee Chairperson

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 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;
- approving, or, as permitted, pre-approving, audit and permissible non-audit services to be performed by the independent registered public accounting firm;

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- reviewing and discussing with our management and our auditors, as appropriate, our guidelines and policies with respect to risk assessment and risk management, including our major financial risk exposures and the steps taken by management to identify, monitor and control exposures to strategic, financial, operational, regulatory and other risks inherent in our business;
- reviewing reports from management and our auditors regarding the adequacy and effectiveness of our procedures to monitor and ensure compliance with our legal and regulatory responsibilities, including our disclosure controls and procedures, as well as our Code of Business Conduct and Ethics, and regarding legal matters and compliance with legal and regulatory requirements that may have a material effect on our business, financial statements or compliance policies, including any material reports or inquiries from regulatory or governmental agencies; and
- reviewing and discussing with the Company material risks relating to data privacy, technology and information security, including cybersecurity, threats and back-up of information systems and the Company's processes for assessing, identifying, and managing such risks, as well as the Company's internal controls and disclosure controls and procedures relating to cybersecurity incidents.

The Audit Committee is currently composed of three directors: Mr. Twomey, Dr. Luderer and Mr. Wong. The Board has adopted a written Audit Committee charter that is available to stockholders on the Company's website at www.bionano.com. The information on our website is not incorporated by reference into this proxy statement or the Annual Report.

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 qualifies as 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, 2023 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 accounting 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, 2023.

Mr. Twomey, Chair
Dr. Luderer
Mr. Wong

- * *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 (the "Securities Act"), 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 as defined in Rule 5605(d)(2) of the Nasdaq listing standards and a “non-employee director” as defined in Rule 16b-3 promulgated under the Exchange Act. The Board has adopted a written Compensation Committee charter that is available to stockholders on the Company’s website at www.bionano.com. The information on our website is not incorporated by reference into this proxy statement or the Annual Report.

The Compensation Committee 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; 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 at least twice 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.

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The Compensation Committee retains an independent executive compensation consultant to assist in evaluating our compensation programs. Pearl Meyer serves as our independent compensation consultant. Our Compensation Committee selected Pearl Meyer based on its general reputation in the industry and experience providing similar services to companies similar to Bionano. The Compensation Committee requested that Pearl Meyer, with respect to our 2023 compensation program:

- 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.

At the request of the Compensation Committee, in 2023 Pearl Meyer also conducted individual interviews with members of the Compensation Committee and management to learn more about the Company’s business operations and strategy, key performance metrics and strategic goals, as well as the labor markets in which the Company competes. Pearl Meyer ultimately developed recommendations for our 2023 compensation program that were presented to the Compensation Committee for its consideration.

Under its charter, our Compensation Committee may form, and delegate authority to, subcommittees as appropriate. Our Compensation Committee approved the formation of an equity incentive subcommittee of the Compensation Committee, currently composed of R. Erik Holmlin, Ph.D., our Chief Executive Officer, to which authority has been delegated to grant, without any further action required by the Compensation Committee, stock options and time-based restricted stock unit (“RSU”) awards to employees who are not our officers, within specified limits approved by our Compensation Committee. The purpose of this delegation of authority is to enhance the flexibility of equity award administration and to facilitate the timely grant of equity awards to non-management employees, particularly new employees, within specified limits approved by our Compensation Committee. In particular, the subcommittee may grant options or RSU awards only within pre-approved guidelines. Typically, as part of its oversight function, our Compensation Committee reviews on a regular basis the list of grants made by the subcommittee. During the year ended December 31, 2023, the subcommittee exercised its authority to grant equity awards covering a total of 891,031 shares, all to non-officer employees.

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 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 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 as defined in Rule 5605(a)(2) of the Nasdaq listing standards, a non-employee director and free from any relationship that would interfere with the exercise of his independent judgment. The Board has adopted a written Nominating and Corporate Governance Committee charter that is available to stockholders on the Company's website at www.bionano.com. The information on our website is not incorporated by reference into this proxy statement or the Annual Report.

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, taking into account such factors as experience, skills and expertise;
- 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. The Nominating and Corporate Governance Committee also takes into account the results of the Board's self-evaluation, conducted annually on a group and individual basis. 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

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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 Corporate 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 90th day nor earlier than the close of business on the 120th day prior to the first anniversary of the preceding year's annual meeting of stockholders. Submissions must include the full name of the proposed nominee, a description of the proposed nominee's business experience for at least the previous five years, complete biographical information, a description of the proposed nominee's qualifications as a director and a representation that the nominating stockholder is a beneficial or record holder of the Company's stock and has been a holder for at least one year. 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. See "Questions and Answers about Proxy Materials and Voting – When are stockholder proposals and director nominations due for next year's Annual Meeting?"

Science and Technology Committee

The Science and Technology Committee of the Board is responsible for overseeing matters relating to our scientific and technologic capabilities and development programs and monitoring and evaluating significant emerging trends and issues in science and technology relevant to us. The Science and Technology Committee is currently composed of four directors: Dr. Barker, Dr. Luderer, Dr. Vuori and Dr. Rajkovic.

The responsibilities of the Science and Technology Committee include, among other things:

- assisting management in developing insights and recommendations for product development and technical innovation;
- recommending external advisors for our use of science and technology;
- assisting management in identifying, evaluating and overseeing technology and product development investments;
- reviewing and overseeing our innovation strategy; and
- overseeing our clinical development strategy and reviewing our intellectual property portfolio.

BOARD AND COMMITTEE SELF-ASSESSMENTS

On an annual basis, the Board, the Audit Committee, the Compensation Committee and the Nominating and Corporate Governance Committee conduct self-assessments to ensure effective performance and to identify opportunities for improvement. As part of the self-assessment process, directors respond to a comprehensive questionnaire that asks them to consider various topics related to board and committee composition, structure, effectiveness, and responsibilities. Each committee, as well as the Board as a whole, then reviews and assesses the responses from this assessment and any recommendations to the Board. The results of the assessments are then discussed by the Board with a view toward taking action to address any issues presented.

BOARD'S OVERSIGHT OF STRATEGY

Our Board is deeply engaged and involved in overseeing our long-range strategy, including evaluating key market opportunities, customer and supplier trends, and competitive developments. This also includes aspects of

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our environmental, social and governance (“ESG”) initiatives that relate to our strategy. Our Board’s oversight of risk is another integral component of the Board’s oversight and engagement on strategic matters. Strategy-related matters are regularly discussed at board meetings and, when relevant, at Committee meetings. We also dedicate at least one board meeting every year to an even more intensive review and discussion of our strategic plan. Matters of strategy also inform committee-level discussions of many issues, including enterprise risk. Engagement of the Board on these issues and other matters of strategic importance continues in between meetings, including through updates to the Board on significant items and discussions between the Chief Executive Officer and our Chairman on a periodic basis. Each director is expected to and does bring to bear their own talents, insights, and experiences to these strategy discussions.

CYBERSECURITY AND DATA PRIVACY OVERSIGHT

Our board of directors addresses our cybersecurity risk management as part of its general oversight function. The Audit Committee is responsible for overseeing our cybersecurity risk management processes, including oversight of mitigation of risks from cybersecurity threats. Our cybersecurity risk assessment and management processes are implemented and maintained by certain Company management, including our Chief Financial Officer who serves as our Chief Information Security Officer (“CISO”). Our CISO relies on both internal and external cybersecurity resources to manage overall cybersecurity risks. Our cybersecurity incident response plan is designed to escalate certain cybersecurity incidents to members of management depending on the circumstances, including IT security leadership, the Chief Financial Officer, Chief Executive Officer, General Counsel (“GC”) and third-party consultants as needed. IT security leadership, the Chief Financial Officer, Chief Executive Officer, and GC work with our incident response team to help the Company mitigate and remediate cybersecurity incidents of which they are notified. In addition, our incident response plan includes reporting to the Audit Committee for certain cybersecurity incidents. The Audit Committee receives periodic reports concerning the Company’s significant cybersecurity threats and risk and the processes the Company has implemented to address them. The Audit Committee also receives various reports, summaries or presentations related to cybersecurity threats, risk and mitigation.

MANAGEMENT AND BOARD ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) OVERSIGHT

We are focused on elevating the health and wellness of all people through our products and services, as well as our ESG initiatives. We believe that ESG practices and sustainable long-term value creation for our stockholders are intertwined, and have committed to advancing an ESG framework that aligns with our culture and what we believe creates value for our investors. Our executive leadership team, comprised of our CEO, CFO, and executives from across the company, oversee our efforts to integrate sustainability and corporate responsibility into our strategic planning, risk management, and reporting. Day-to-day responsibility for our ESG program resides with a cross-functional representation of leaders who meet regularly to review progress and provide recommendations to the executive team. For more information about our ESG efforts please visit <https://ir.bionano.com/responsibility>. The information on our website is not incorporated by reference into this proxy statement or the Annual Report.

STOCKHOLDER ENGAGEMENT AND COMMUNICATIONS WITH THE BOARD

We consider our relationships with our stockholders to be a high priority. We recognize that stockholders can have divergent interests and different views on our practices, objectives and time horizons. To ensure that the Board and management have an opportunity to listen to and understand the varying perspectives of our stockholders, we engage in ongoing dialogues with stockholders through our stockholder engagement efforts. In 2023, members of management engaged in dialogue with various investors to better understand the views and concerns of stockholders. Topics discussed included corporate governance, executive compensation, business strategy and environmental and other issues related to corporate social responsibility. See “Executive and Director Compensation—Compensation Program Overview” for additional information and a discussion of specific actions we have taken to address stockholder concerns relating to our executive compensation. As a result of these discussions, we gained understanding and insight into the views of these stockholders.

COMMUNICATIONS WITH THE BOARD

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,

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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 BUSINESS CONDUCT AND ETHICS

We have adopted a Code of Business Conduct and Ethics that applies to all of our employees, officers and directors. This includes our principal executive officer, principal financial officer and principal accounting officer or controller, or persons performing similar functions. The Code of Business Conduct and Ethics is available on the Company's website at www.bionano.com. The information on our website is not incorporated by reference into this proxy statement or the Annual Report. If we ever were to amend or waive any provision of our Code of Business Conduct and Ethics that applies to our principal executive officer, principal financial officer, principal accounting officer or controller, or any person performing similar functions, we intend to satisfy our disclosure obligations, if any, with respect to any such waiver or amendment by posting such information on our website set forth above rather than by filing a Current Report on Form 8-K.

HEDGING AND PLEDGING 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, any of our common stock, including without limitation, borrowing against such stock, at any time or pledge our stock as collateral for a loan.

* *The disclosure under the caption "Hedging Policy" is not to be incorporated by reference in any filing of the Company under the Securities Act or the Exchange Act, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing.*

PROPOSAL 2: ADVISORY VOTE ON EXECUTIVE COMPENSATION

At the 2023 Annual Meeting of Stockholders, the stockholders indicated their preference that we solicit a non-binding advisory vote on the compensation of the named executive officers, commonly referred to as a “say-on-pay vote,” every year. The Board has adopted a policy that is consistent with that preference. In accordance with that policy, this year, we are again asking the stockholders to approve, on an advisory basis, the compensation of our named executive officers as disclosed in this proxy statement in accordance with SEC rules.

This vote is not intended to address any specific item of compensation, but rather the overall compensation of our named executive officers and the philosophy, policies and practices described in this proxy statement. The compensation of our named executive officers subject to the vote is disclosed in the compensation tables and the related narrative disclosure contained in this proxy statement. As discussed in those disclosures, we believe that our compensation policies and decisions are consistent with current market practices. Compensation of our named executive officers is designed to enable us to attract and retain talented and experienced executives to lead us successfully in a competitive environment. Please also refer to “Information Regarding the Board of Directors and Corporate Governance—Stockholder Engagement and Communications with the Board of Directors” for a discussion of our engagement with stockholders following last year’s vote by our stockholders regarding the compensation of our named executive officers.

Accordingly, the Board is asking the stockholders to indicate their support for the compensation of our named executive officers as described in this proxy statement by casting a non-binding advisory vote “For” the following resolution:

“RESOLVED, that the compensation paid to Bionano’s named executive officers, as disclosed pursuant to the compensation disclosure rules of the Securities and Exchange Commission, including the compensation tables and any related material disclosed in this proxy statement, is hereby APPROVED.”

Because the vote is advisory, it is not binding on the Board or us. Nevertheless, the views expressed by our stockholders, whether through this vote or otherwise, are important to management and the Board and, accordingly, the Board and the Compensation Committee intend to consider the results of this vote in making determinations in the future regarding executive compensation arrangements.

Advisory approval of this proposal requires “For” votes from the holders of a majority of voting power of the shares of our common stock present by virtual attendance at the Annual Meeting or represented by proxy and entitled to vote on the matter. Abstentions will be counted towards the vote total and will have the same effect as “Against” votes for this proposal. Broker non-votes will be counted towards the presence of a quorum but will have no effect and will not be counted towards the vote total for this proposal because we have been advised by NYSE that this proposal is considered “non-routine” under NYSE rules, and accordingly, your broker may not vote your shares on this proposal without instructions from you. Nevertheless, whether a proposal is “routine” or “non-routine” remains subject to the final determination of NYSE. If your shares are held by a bank, we believe your shares cannot be voted without your specific instructions.

Unless the Board decides to modify its policy regarding the frequency of soliciting advisory votes on the compensation of our named executives, the next scheduled say-on-pay vote will be at the 2025 Annual Meeting of Stockholders. We anticipate that our next advisory vote on the preferred frequency of stockholder advisory votes on the compensation of our named executive officers will occur at the 2029 Annual Meeting of Stockholders in accordance with the Dodd-Frank Wall Street Reform and Consumer Protection Act and Section 14A of the Exchange Act, unless the Board determines to hold such advisory vote at an earlier meeting.

**THE BOARD OF DIRECTORS RECOMMENDS
A VOTE “FOR” PROPOSAL 2.**

PROPOSAL 3: RATIFICATION OF SELECTION OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Audit Committee has selected BDO USA, P.C. to serve as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2024 and our Board has further directed that management submit the Audit Committee's selection of BDO USA, P.C. as the Company's independent registered public accounting firm for ratification by the stockholders at the Annual Meeting. Representatives of BDO USA, P.C. 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 Bylaws nor other governing documents or law require stockholder ratification of the selection of BDO USA, P.C. as the Company's independent registered public accounting firm. However, the Audit Committee is submitting the selection of BDO USA, P.C. 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

Approval of this proposal requires "For" votes from the holders of a majority of voting power of the shares of our common stock present by virtual attendance at the Annual Meeting or represented by proxy and entitled to vote on the matter. Abstentions will be counted towards the vote total and will have the same effect as "Against" votes for this proposal. We do not anticipate broker non-votes for this proposal because we have been advised by NYSE that this proposal is considered "routine" under NYSE rules, and accordingly, your broker may vote your shares on this proposal without instructions from you; however, to the extent there are broker non-votes for this proposal, we believe such broker non-votes will have no effect because they are not considered entitled to vote on this proposal under Delaware law. Nevertheless, whether a proposal is "routine" or "non-routine" remains subject to the final determination of NYSE. If your shares are held by a bank, we believe your shares cannot be voted without your specific instructions.

PRINCIPAL ACCOUNTANT FEES AND SERVICES

The following table summarizes the aggregate fees billed to the Company by BDO USA, P.C., our principal accountant, for the fiscal years ended December 31, 2023 and 2022.

	2023	2022
Audit fees ⁽¹⁾	\$809,876	\$726,775
Audit-related fees ⁽²⁾	—	—
Tax fees ⁽³⁾	\$161,658	—
All other fees	—	—
Total	\$971,534	\$726,775

(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."

(3) Tax fees consist of fees billed for professional services rendered for tax compliance, advice and planning. For the fiscal years ended December 31, 2023, these services included assistance regarding federal and state tax compliance and consultations regarding various income tax issues.

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During the fiscal years ended December 31, 2023 and 2022, all of the total hours expended on our financial audit by BDO USA, P.C. were provided by BDO USA, P.C.'s full-time permanent employees.

PRE-APPROVAL POLICIES AND PROCEDURES

In considering the nature of the services provided by BDO USA, P.C., 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, P.C. 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, P.C. be pre-approved prior to the services being performed. During the fiscal years ended December 31, 2023 and 2022, all services by BDO USA, P.C., respectively, were pre-approved in accordance with these procedures, and the Audit Committee continues to require that all services performed by BDO USA, P.C. be pre-approved in accordance with these procedures prior to the services being performed.

**THE BOARD OF DIRECTORS RECOMMENDS
A VOTE "FOR" PROPOSAL 3.**

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.	56	President, Chief Executive Officer and Director
Gülsen Kama	51	Chief Financial Officer
Mark Oldakowski	50	Chief Operating Officer
Alka Chaubey, Ph.D., FACMG	51	Chief Medical Officer
Jonathan Dixon, J.D.	49	General Counsel and Secretary

EXECUTIVE OFFICERS WHO ARE NOT DIRECTORS

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

Gülsen Kama. Ms. Kama has served as our Chief Financial Officer since September 2023. Prior to joining the Company, Ms. Kama served as the Chief Financial Officer at Northern Data since June 2022. Prior to this, Ms. Kama served as Chief Financial Officer, East Region and Healthcare IT at Quest Diagnostics from May 2016 to May 2022. Previously, Ms. Kama has served as Vice President, Financial Planning and Analysis at Jackson Hewitt Tax Service Inc., Director, Corporate Financial Planning and Analysis at AIG, and Vice President, Strategic Planning at The Great Atlantic & Pacific Tea Company, and she has held multiple financial leadership roles specializing in strategic business planning and execution at United Airlines. Ms. Kama received her B.S. in Industrial Engineering from Boğaziçi University and her MBA from University of Georgia - Terry College of Business.

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. Mr. Oldakowski previously served as the Senior Director of Engineering and Chief Product Officer at Brooks Life Science Systems (currently Azenta Life Sciences), a private automation and cryogenic solutions company, from December 2011 to August 2014, and as a Director of Engineering at Affymetrix, Inc. (now Applied Biosystems), a private life science systems company, from April 2009 to October 2011. 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 B.S. in Electrical Engineering and his M.S. in Computer and Systems Engineering from Rensselaer Polytechnic Institute.

Alka Chaubey, Ph.D., FACMG. Dr. Chaubey has served as our Chief Medical Officer since August 2020. Dr. Chaubey has also served on the board of directors of the Cancer Genomics Consortium, a nonprofit organization focusing on clinical cancer genomics, since August 2016, as a member of the Diversity, Equity and Inclusion Committee of the American Board of Medical Genetics and Genomics, since March 2021, and as the Genetics Subdivision Nominating Committee representative of the Association for Molecular Pathology, a nonprofit organization focusing on molecular diagnostics, until July 2021. Dr. Chaubey served as the Head of Cytogenomics at PerkinElmer Genomics, a subsidiary of the public company PerkinElmer, Inc. focused on genetic and genomic testing, from May 2018 to August 2020, where she 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, a nonprofit genetic diagnostic institute, from August 2013 to August 2020, where she also served as an Assistant Director from August 2010 to August 2013. Dr. Chaubey 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 received her Ph.D. from Guru Nanak Dev University, Amritsar, India and completed her post-doctoral studies at Center for Cellular and Molecular Biology, Hyderabad, India, and University of Illinois at Chicago.

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Jonathan Dixon, J.D. Mr. Dixon has served as our General Counsel since March 2023, and as our Global Head of Legal since March 2022. From March 2015 to March 2022 Mr. Dixon served as Associate General Counsel, IP, at Becton, Dickinson and Company. Prior to this, Mr. Dixon served as Assistant General Counsel at CareFusion from June 2013 to March 2015. From March 2006 to June 2013, he served as Senior Intellectual Property Counsel at Becton, Dickinson and Company. From June 2003 to March 2006, Mr. Dixon served as Director, Legal Affairs at GeneOhm Sciences, Inc. Prior to this he served at the National Institutes of Health as Technology Transfer Officer from June 2001 to June 2003. Mr. Dixon received his B.S. in both Microbiology and Economics from Brigham Young University and received his J.D. from Lewis and Clark College.

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

The following table sets forth information regarding beneficial ownership of our capital stock as of April 15, 2024 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 a footnote 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 66,856,804 shares of our common stock outstanding on April 15, 2024, 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	Securities Exercisable within 60 Days of April 15, 2024	Warrants	Number of Shares Beneficially Owned ⁽¹⁾	% ⁽²⁾
Greater than 5% Stockholders					
Armistice Capital Master Fund Ltd. ⁽³⁾	8,296,944	—	—	8,296,944	12.37%
Directors and Named Executive Officers					
David L. Barker, Ph.D.	5,836	50,824	—	56,660	*
R. Erik Holmlin, Ph.D. ⁽⁴⁾	79,664	263,330	—	342,994	*
Yvonne Linney, Ph.D.	—	56,608	—	56,608	*
Albert Luderer, Ph.D.	—	54,862	—	54,862	*
Hannah Mamuszka	6,578	58,808	—	65,386	*
Aleksandar Rajkovik, M.D., Ph.D.	—	55,065	—	56,065	*
Christopher J. Twomey ⁽⁵⁾	6,450	53,958	5,450	65,858	*
Kristiina Vuori, M.D., Ph.D.	—	53,743	—	53,743	*
Vincent Wong, J.D.	—	51,273	—	51,273	*
Alka Chaubey, Ph.D., FACMG	33,594	108,337	—	141,931	*
Mark Oldakowski	49,184	110,253	—	159,437	*
All current executive officers and directors as a group (13 persons)⁽⁶⁾	184,831	940,891	5,450	1,131,172	1.67%

* 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, RSU vesting, warrant exercise or otherwise, within 60 days after April 15, 2024. No other person or group of affiliated persons is known by us to beneficially own more than 5% of our common stock as of April 15, 2024.
- (2) For each named person, the percentage ownership includes common stock that the person has the right to acquire within 60 days after April 15, 2024, 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 15, 2024 unless otherwise provided.
- (3) Represents shares acquired by the named stockholder pursuant to a transaction with Company on April 8, 2024, but actual shares held as of the date of this proxy is unknown as no publicly-filed Schedules 13D or 13G are available.
- (4) The indicated ownership includes 502 shares held indirectly through the Robert Erik Holmlin IRA.

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- (5) The indicated ownership consists of (i) 6,450 shares of common stock held by the Christopher J. Twomey and Rebecca J. Twomey Family Trust U.T.D. September 20, 2002 for which Christopher J. Twomey and Rebecca J. Twomey serve as co-trustees (the “Trust”), (ii) 4,500 warrants to purchase one share of the Company’s common stock, expiring on April 6, 2025, held by the Trust and (iii) 950 warrants to purchase one share of the Company’s common stock, expiring on October 23, 2024, held by the Trust.
- (6) Consists of (i) shares identified in the list of directors and executive officers above; (ii) 3,525 shares of common stock held by Jonathan Dixon; and (iii) 22,630 shares of common stock issuable upon the exercise of stock options that are exercisable or will be exercisable within 60 days of April 15, 2024 by Jonathan Dixon.

EXECUTIVE AND DIRECTOR COMPENSATION

EXECUTIVE COMPENSATION

Our named executive officers for the year ended December 31, 2023, consisting of our principal executive officer and our next two most highly compensated executive officers as of December 31, 2023 were:

- R. Erik Holmlin, Ph.D., our Chief Executive Officer;
- Mark Oldakowski, our Chief Operating Officer; and
- Alka Chaubey, Ph.D., FACMG, our Chief Medical Officer.

The following section provides an overview of the 2023 executive compensation decisions for our named executive officers.

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 years ended December 31, 2023 and 2022.

Name and Principal Position	Year	Salary (\$)	Stock Awards ⁽¹⁾ (\$)	Option Awards ⁽²⁾ (\$)	Non-Equity Incentive Plan Compensation ⁽³⁾ (\$)	All Other Compensation ⁽⁴⁾ (\$)	Total (\$)
R. Erik Holmlin, Ph.D. <i>Chief Executive Officer</i>	2023	598,942	489,000	153,036		13,680	1,254,659
	2022	543,942		1,932,000	277,950	12,680	2,766,572
Mark Oldakowski <i>Chief Operating Officer</i>	2023	459,231	265,400	146,469		13,680	884,780
	2022	419,154		897,000	171,990	12,680	1,500,824
Alka Chaubey, Ph.D., FACMG <i>Chief Medical Officer</i>	2023	439,231	265,400	146,469		13,680	864,780
	2022	399,269		759,000	146,880	12,680	1,317,829

- (1) Represent the aggregate grant date fair value of RSU awards granted to our named executive officers during the period reported, each calculated in accordance with FASB ASC 718, Compensation – Stock Compensation. These values do not reflect whether the named executive officer has actually realized or will realize a financial benefit from the awards upon the vesting of the granted stock awards, or the sale of the shares underlying such stock awards. The valuation assumptions used in calculating the fair value of the RSU awards are included in the notes to our audited consolidated financial statements included in Note 10 of the Annual Report.
- (2) In accordance with SEC rules, this column reflects the aggregate grant date fair value of option awards granted to our named executive officers during the period reported, as determined in accordance with FASB ASC 718. The valuation assumptions used in calculating the fair value of the stock options are included in the notes to our audited consolidated financial statements included in Note 10 of 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.
- (3) Amounts reported represent performance-based bonuses earned in the period presented. For 2023, the Compensation Committee did not approve any performance-based non-equity incentive compensation for the named executive officers. For more information, see “Performance-Based Bonus Opportunity” below.
- (4) Amounts for 2023 reflect 401(k) matching contributions of \$13,200 for each of Dr. Holmlin, Mr. Oldakowski, and Dr. Chaubey, and \$480 for life insurance premiums for each of Dr. Holmlin, Mr. Oldakowski and Dr. Chaubey.

Compensation Program Overview

Our compensation program for executive officers is designed to encourage our management team to 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 opportunity and long-term equity-based incentives. The compensation of our named executive officers, including our chief executive officer is generally determined and approved by the Compensation Committee of our Board. In setting the total compensation of our executives, the Compensation Committee considers the 50th percentile compared to our peer group a reasonable target. Previously, the total compensation of our executive officers has been below the 50th percentile; however, over a period of several years, the Compensation Committee increased the total compensation of our executive officers to align more closely to the 50th percentile compared to our peer group. For executive officers whose current compensation remains below the 50th percentile compared to our peer group, the Compensation Committee may continue its plan to increase the total compensation of such executive officers to align more

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closely with the 50th percentile of our peer group. Further, in an effort to align the interests of our executive officers with those of our stockholders, our Compensation Committee’s plan to increase executive total compensation involves a greater emphasis on the executive officer’s performance-based bonus opportunity compared to base salary in setting total target cash compensation for each executive officer. Please refer to “—Annual Base Salary” and “—Performance Based Bonus Opportunity” below.

At our 2023 annual meeting of stockholders, our non-binding stockholder advisory vote to approve the compensation of our named executive officers was supported by approximately 53% of the votes cast for or against the advisory approval. We continue to evaluate our executive compensation program and solicit input from our largest investors. Based on these results, as discussed above in “Stockholder Engagement and Communications with the Board of Directors,” our management discussed our pay practices with certain of our stockholders following the 2023 annual meeting of stockholders. Among the topics discussed was:

- the desire for additional disclosure regarding our peer group;
- our compensation compared to our peer group; and
- a clear rationale in the event we provide one-off or off-cycle incentive opportunities to our named executive officers.

In response to those discussions, we have provided enhanced disclosure regarding the peer group we used to set our compensation practices for 2023. We do expect that the equity mix of option awards and stock awards may be adjusted from time-to-time in our annual compensation cycle as we seek to better align our incentive compensation practices with our peer group. We plan to continue discussions with stockholders on an ongoing basis and consider adjustments to our executive pay programs as appropriate.

In making 2023 pay decisions, the Compensation Committee used the peer group established in August 2022. This group included publicly traded companies within comparable areas of science, valuation and operation size with market values generally between \$150 million to \$2 billion, annual revenues of less than \$200 million, positive revenue growth and employee headcount between 100 to 900 full time employees. This peer group comprises the following companies:

908 Devices Inc.	Absci Corporation	Adaptive Biotechnologies Corporation	Akoya Biosciences, Inc.	Berkeley Lights, Inc. (1)
CareDx, Inc	Castle Biosciences, Inc.	Codexis, Inc.	Cytek Biosciences, Inc.	DermTech, Inc.
NanoString Technologies, Inc.	Nautilus Biotechnology, Inc.	Personalis, Inc.	Quanterix Corporation	Quantum-Si incorporated
Seer, Inc.	Singular Genomics Systems, Inc.	Pacific Biosciences of California	Twist Bioscience Corporation	Veracyte, Inc.

(1) PhenomeX Inc. (fka Berkeley Lights, Inc.) was acquired by Bruker Corporation in October 2023 and is no longer part of our peer group.

Annual Base Salary

Base salaries serve to provide fixed cash compensation to our executive officers for performing their ongoing responsibilities. Base salaries for our executive officers are approved by the Compensation Committee in connection with the commencement of employment, and are reviewed and adjusted, as appropriate, upon the recommendation of the Compensation Committee on an annual basis, based on consideration of various factors, including:

- The individual’s role and responsibilities;
- Individual contribution and performance over the past year;
- Overall experience and expertise;
- Current base salary;

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- Labor market conditions;
- Inflation;
- Corporate performance;
- Succession planning; and
- Salaries for similar positions within our industry.

The compensation of our named executive officers, including our chief executive officer, is generally determined and approved by our Compensation Committee, based on the recommendation of the Compensation Committee. The below 2023 base salaries were in line with the general policies implemented across the Company in setting pay increases for 2023 pursuant to our Compensation Committee's plan to bring the total compensation of our executives closer to the 50th percentile of our peer group over several years. The 2023 base salaries that became effective as of January 1, 2023 were as follows:

NAME	2023 BASE SALARY (\$) ⁽¹⁾
R. Erik Holmlin, Ph.D.	600,000
Mark Oldakowski	460,000
Alka Chaubey, Ph.D., FACMG	440,000

(1) The base salary for Dr. Holmlin, Mr. Oldakowski and Dr. Chaubey increased in 2023 by 10.1%, 9.5% and 10.0%, respectively, from the base salaries in effect in 2022 for Dr. Holmlin, Mr. Oldakowski and Dr. Chaubey of \$545,000, \$420,000 and \$400,000, respectively. Our Compensation Committee approved these increases in base salary in February 2023 to place each of Dr. Holmlin's, Mr. Oldakowski's and Dr. Chaubey's base salary near the 50th percentile of our peer group, consistent with our existing plan to do over a period of years. For 2024, no merit increase to the base salaries of our named executive officers has been approved by our Compensation Committee.

Performance-Based Bonus Opportunity

In addition to base salaries, our named executive officers are eligible to receive annual performance-based cash bonuses designed to provide appropriate incentives to our named executive officers to achieve defined annual performance goals and to reward our named executive officers for achievement towards these goals. As part of the annual planning process, our management proposes a set of objective (i.e., achieved or not achieved) and/or quantitative (e.g., anticipated revenue) corporate goals to the Compensation Committee early in the year. For 2023, the corporate goals measured performance across five categories: operating, financial, market development, product development, and operations and quality. The Compensation Committee reviews and discusses the corporate goals, often suggesting changes for our management to consider. The final corporate goals are then approved by the Compensation Committee. At the end of the year, our Compensation Committee reviews each named executive officer's performance in light of the corporate goal achievement and determines the actual bonus payout to be awarded to each of our named executive officers. The annual performance-based bonus each named executive officer is eligible to receive is generally based on the extent to which we achieve our corporate goals and, for all except Dr. Holmlin, the individual's contributions to such achievements. In making executive compensation decisions, the Compensation Committee generally takes into consideration each named executive officer's individual performance, scope of job function and the critical skill set of the named executive officer to the company's future performance.

The 2023 performance-based bonus opportunity of our named executive officers as a percentage of respective base salary were as follows:

NAME	2023 TARGET BONUS
R. Erik Holmlin, Ph.D.	67%
Mark Oldakowski	55%
Alka Chaubey, Ph.D., FACMG	55%

Upon review of our compensation philosophy, market data and the recommendations of Pearl Meyer, our Compensation Committee approved increases to 2023 performance-based bonus opportunities for Dr. Holmlin, Mr. Oldakowski and Dr. Chaubey equal to 67%, 55% and 55%, respectively, of each of their respective base

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salaries in order to better align our named executive officers' total compensation with the 50th percentile of our 2023 peer group and the Compensation Committee's focus on assigning greater weight towards performance-based bonus opportunity as a component of total cash compensation.

For 2023, the Compensation Committee reviewed our corporate performance and the individual performance of our named executives. Despite meeting more than 95% of the corporate goals and the significant individual performance of each of our named executive officers, the Compensation Committee determined that no performance-based bonuses would be paid to our named executives for 2023. This decision was made largely in light of the performance of our stock price over the course of 2023 and our current financial situation.

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 and our Compensation Committee 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 and annually at the beginning of the year. Subsequent discretionary annual equity-based awards may occur for our executives and our eligible non-executive employees as part of our annual performance reviews and as determined by the Compensation Committee and our Board. Such equity-based awards are for the purpose of retaining and incentivizing our executives and eligible non-executive employees consistent with guidelines provided by our Compensation Committee and our Board. 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. Individual grants are determined based on several factors, including current corporate and individual performance, outstanding equity holdings and their retention value and total ownership, and market data provided by our independent compensation consultant.

Prior to our August 2018 initial public offering ("IPO"), we granted all equity awards pursuant to our Amended and Restated 2006 Equity Compensation Plan (the "2006 Plan"). Following our IPO, we have granted all equity awards pursuant to our 2018 Equity Incentive Plan, as amended ("2018 Plan") and our 2020 Inducement Plan, as amended ("Inducement Plan"). We have historically granted options to our named executive officers. 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.

In 2023, in consultation with our independent compensation consultant, and based on market data, our Compensation Committee determined it was appropriate to grant a mix of stock options (70%) and RSUs (30%) to our named executive officers. Specifically, our Compensation Committee made an annual grant of options to purchase 140,000, 56,000 and 56,000 shares to Dr. Holmlin, Mr. Oldakowski and Dr. Chaubey, respectively, and granted 30,000, 12,000 and 12,000 RSUs to Dr. Holmlin, Mr. Oldakowski and Dr. Chaubey, respectively. Each option has an exercise price of \$16.30 per share and vests as follows: shares subject to the option vest monthly over 48 months beginning on the one-month anniversary of the grant date, such that each option shall be fully vested and exercisable on the four-year anniversary of the grant date. Each RSU vests as follows: 25% at one-year anniversary, annually thereafter over the remaining three years. Going forward, we will continue to evaluate our equity compensation practices with respect to the use of options, RSUs, and PSUs and may use a mix of these equity vehicles to incentivize our executive team.

Additionally, in September 2023 as part of a review of executive long-term incentive opportunities Compensation Committee desired to align the equity opportunity of Mr. Oldakowski and Dr. Chaubey more closely with that of the Company's newly hired Chief Financial Officer, Ms. Kama. In consultation with our independent compensation consultant, the Compensation Committee awarded each of Mr. Oldakowski and Dr. Chaubey 20,000 RSUs and options to purchase 40,000 shares. Each RSU vests as follows: 50% of the total RSUs on each of the first and second anniversaries of September 11, 2023, in each case subject to the grantee's continuous service through each applicable vesting date. Each option has an exercise price of \$3.00 per share and vests as follows: shares subject to the option vest monthly over 48 months beginning on the one-month anniversary of the grant date, such that each option shall be fully vested and exercisable on the four-year anniversary of the grant date. detailed in the table below.

For additional information, please see 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, 2023.

Name	Grant Date	Option Awards ⁽¹⁾				Stock Awards ⁽²⁾			
		Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price Per Share ⁽³⁾ (\$)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested ⁽⁴⁾ (\$)	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights That Have Not Vested ⁽⁵⁾ (#)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights That Have Not Vested ⁽⁴⁾ (\$)
R. Erik Holmlin, Ph.D.	2/15/2023 ⁽⁶⁾	29,160	110,839	16.30	2/14/2033	—	—	—	—
	2/15/2023 ⁽⁷⁾					30,000	56,700		
	2/15/2022 ⁽⁶⁾	64,157	75,842	21.80	2/14/2032	—	—	—	—
	5/12/2021	—	—	—	—	—	—	29,000	54,810
	4/1/2021 ⁽⁶⁾	51,660	25,839	78.30	3/31/2031	—	—	—	—
	2/18/2020 ⁽⁶⁾	27,789	1,210	10.40	2/17/2030	—	—	—	—
	3/1/2019	14,499	—	42.50	2/28/2029	—	—	—	—
	10/1/2018	25,653	—	77.70	9/30/2028	—	—	—	—
	2/7/2017 ⁽⁸⁾	9,621	5,776	13.00	2/6/2027	—	—	—	—
	1/29/2015	727	—	642.20	1/28/2025	—	—	—	—
Mark Oldakowski	9/18/2023 ⁽⁶⁾	2,500	37,500	3.00	9/17/2033	—	—	—	—
	9/11/2023 ⁽⁹⁾					20,000	37,800	—	—
	2/15/2023 ⁽⁶⁾	11,660	44,339	16.30	2/14/2033	—	—	—	—
	2/15/2023 ⁽⁷⁾					12,000	22,680	—	—
	2/15/2022 ⁽⁶⁾	29,786	35,213	21.80	2/14/2032	—	—	—	—
	4/1/2021 ⁽⁶⁾	18,329	9,170	78.30	3/31/2031	—	—	—	—
	2/18/2020	11,999	—	10.40	2/17/2030	—	—	—	—
	3/1/2019	5,999	—	42.50	2/28/2029	—	—	—	—
	10/1/2018	5,958	—	77.70	9/30/2028	—	—	—	—
	2/7/2017	3,421	—	13.00	2/6/2027	—	—	—	—
Alka Chaubey	9/18/2023 ⁽⁶⁾	2,500	37,500	3.00	—	—	—	—	—
	9/11/2023 ⁽⁹⁾	—	—	—	—	20,000	37,800	—	—
	2/15/2023 ⁽⁶⁾	11,660	44,339	16.30	—	—	—	—	—
	2/15/2023 ⁽⁷⁾	—	—	—	—	12,000	22,680	—	—
	2/15/2022 ⁽⁶⁾	25,203	29,796	21.80	2/14/2032	—	—	—	—
	4/1/2021 ⁽⁶⁾	18,329	9,170	78.30	3/31/2031	—	—	—	—
	9/1/2020 ⁽¹⁰⁾	25,000	5,000	5.61	8/31/2030	—	—	—	—
	7/15/2020	1,000	—	5.00	7/14/2030	—	—	—	—
	5/1/2019	500	—	40.30	4/30/2029	—	—	—	—
	10/1/2018	1,021	—	77.70	9/30/2028	—	—	—	—

- (1) Option awards in this column were granted under the 2006 Plan, the 2018 Plan or the Inducement Plan.
- (2) Stock awards in this column were granted under the 2018 Plan.
- (3) 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.
- (4) The market values of the RSU and PSU awards that have not vested are calculated by multiplying the number of shares underlying the RSU awards or PSU awards shown in the table by \$1.89, the closing price of our common stock on the Nasdaq Capital Market December 29, 2023, the last trading day of the year.
- (5) Represents PSU award granted on May 12, 2021 under the 2018 Plan that, in order to vest, requires achievement of certain performance goals during a four-year performance period ending on May 12, 2025, subject to continued service with us through the end of the performance period. With respect to the PSU, if Dr. Holmlin's employment with us is terminated for any reason other than as a result of death, disability, cause, or resignation without good reason, then the PSU may become vested if the performance goal is achieved by the earlier of 18 months following such termination or May 12, 2025, subject to Dr. Holmlin's execution of a release. The number of shares subject to the PSU award assumes achievement of the goals, as there is only a single estimated payout pursuant to the award. As of December 31, 2023, the Compensation Committee has not verified whether the performance criteria underlying these PSU awards have been achieved.
- (6) 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, subject to continued service through each such applicable vesting date

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- (7) Each RSU vests as follows: 25% at one-year anniversary, annually thereafter over the remaining three years.
- (8) All outstanding options under the 2006 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 \$120.00 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.
- (9) The RSU will vest as to 50% of the total RSUs on each of the first and second anniversaries of the Vesting Commencement Date.
- (10) Each option award vests as follows: 25% of the shares subject to the option vest on the one-year anniversary of the grant date, and the remaining shares subject to the option vest in 36 equal monthly installments thereafter, subject to continued service through each such applicable vesting date.

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 is entitled to an annual base salary and an annual performance bonus. 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 is entitled to an annual base salary and is eligible to receive an annual performance bonus. Mr. Oldakowski's employment is at will.

Dr. Chaubey. We entered into an employment agreement with Dr. Chaubey on August 31, 2020, which governs the current terms of her employment with us. Pursuant to the agreement, Dr. Chaubey is entitled to an annual base salary and is eligible to receive an annual performance bonus. Dr. Chaubey'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 or her 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 or her employment agreement with us, as described below. For the definitions of “cause,” “good reason” and “disability” referenced below, please refer to the individual 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 (i) 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) continued payments of base salary, at the rate in effect at the time of termination, for six months and (ii) premiums for continued health coverage for such period 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.

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

Each of our named executive officers holds stock options, RSU awards or PSU awards under the 2006 Plan, 2018 Plan or the Inducement Plan, as the case may be, 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 award agreement. The specific vesting terms of each named executive officer's stock options, RSU awards and PSU awards (including any acceleration provisions) are described below under "—Outstanding Equity Awards at Fiscal Year-End."

Perquisites, Health, Welfare and Retirement Benefits

All of our currently employed 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 currently employed named executive officers. In addition, we provide a 401(k) plan to our employees, including our currently employed 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.

401(k) Plan

We maintain a defined contribution employee retirement plan ("401(k) plan") for our employees. Our currently employed 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 Internal Revenue Code of 1986, as amended (the "Code"). The plan permits us to make discretionary contributions, including matching contributions equal to 100% of salary deferrals up to the first 3% of eligible compensation plus 50% of salary deferrals up to the next 2% of eligible compensation. The 401(k) plan currently does not offer the ability to invest in our securities.

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, 2023. 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

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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 410,000 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, 2023, there were options to purchase 3,272,251 shares of common stock outstanding under the 2018 Plan.

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 ("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.

Pursuant to the 2018 Plan, the maximum number of shares of common stock subject to stock awards granted under the 2018 Plan or otherwise during a single calendar year to any non-employee director, taken together with any cash fees paid by the Company to such non-employee director during such calendar year for service on the Board of Directors, will not exceed \$500,000 in total value (calculating the value of any such stock awards based on the grant date fair value of such stock awards for financial reporting purposes), or, with respect to the calendar year in which a non-employee director is first appointed or elected to the Board of Directors, \$800,000.

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;

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- 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, 2023, there were options to purchase 23,562 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

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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), (ii) 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 current 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.

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Equity Compensation Plan Information

The following table provides information as of December 31, 2023 with respect to equity compensation plans (including individual compensation arrangements) under which the Company’s common stock is authorized for issuance.

Plan Category	(a) Number of securities to be issued upon exercise of outstanding options and rights	(b) Weighted average exercise price of outstanding options and rights	(c) Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
Equity compensation plans approved by stockholders:			
Amended and Restated 2006 Equity Compensation Plan ⁽¹⁾	23,562	\$40.19	—
2018 Equity Incentive Plan, as amended ⁽²⁾	3,272,251 ⁽⁴⁾	\$25.76	1,328,314
2018 Employee Stock Purchase Plan ⁽³⁾	—	—	1,266,400
Equity compensation plans not approved by stockholders:			
2020 Inducement Plan	239,924	\$11.07	126,515
Total	3,535,737	\$24.79	2,720,210

- (1) Effective following the IPO in August 2018, no additional awards may be granted under the 2006 Plan.
- (2) Pursuant to an “evergreen” provision contained in the 2018 Plan, as amended May 3, 2020, on January 1st of each year through January 1, 2028, the number of shares authorized for issuance under the 2018 Plan will be automatically increased by the lesser of: (a) 5.0% of the total number of shares of our capital stock outstanding on December 31st of the preceding calendar year; or (b) such lesser number of shares of our common stock as our Board may designate prior to the applicable January 1st. Pursuant to the terms of the 2018 Plan, an additional 2,287,580 shares were added to the number of available shares effective January 1, 2024.
- (3) Pursuant to an “evergreen” provision contained in the ESPP, on January 1st of each year through January 1, 2028, the number of shares authorized for issuance under the ESPP will be automatically increased by a number equal to the lesser of: (a) 1.0% of the total number of shares of capital stock outstanding on December 31st of the preceding calendar year; (b) 220,000 shares; or (c) such lesser number of shares of our common stock as our Board may designate prior to the applicable January 1st. Pursuant to the terms of the ESPP, an additional 220,000 shares were added to the number of available shares effective January 1, 2024.
- (4) Consists of outstanding (i) PSU awards covering an aggregate of 290,000 shares of our common stock, calculated assuming the PSU awards were converted to shares of our common stock using a price of \$1.89 per share, the closing price of our common stock on the Nasdaq Capital Market on December 29, 2023 and (ii) RSU awards covering an aggregate of 265,000 shares of our common stock. The number of shares to be issued in respect of the PSU awards has been calculated based on the assumption that the maximum levels of performance applicable to these awards will be achieved. The weighted average exercise price in column (b) does not take these awards into account.

DIRECTOR COMPENSATION

Our Compensation Committee reviews the compensation program for our non-employee directors on an annual basis, with the assistance of its independent compensation consultant, who prepares a comprehensive assessment of our non-employee director compensation program. Such assessment includes comparing our current non-employee director compensation against competitive market practices using the same compensation peer group used for executive compensation purposes and an update on recent trends in director compensation. Following such review, the Compensation Committee approves any updates to the non-employee director compensation policy.

Our non-employee director compensation policy was originally adopted by our Board in July 2018 and has subsequently been amended, most recently in November 2021. For 2023, this compensation policy provided that each such non-employee director would receive the following compensation for service on our Board:

- an annual cash retainer of \$40,000;
- an additional annual cash retainer of \$20,000 for service as chairman of the board of directors;

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- an additional annual cash retainer of \$20,000, \$15,000, \$10,000 and \$10,000 for service as chair of the Audit Committee, the Compensation Committee, the Nominating and Corporate Governance Committee and the Science and Technology Committee, respectively;
- an additional annual cash retainer of \$10,000, \$7,500, \$5,000 and \$5,000 for service as a member of the Audit Committee, Compensation Committee, the Nominating and Corporate Governance Committee and the Science and Technology Committee, respectively (not applicable to committee chairs);
- an initial option grant to purchase common stock with an aggregate Black-Scholes option value of \$247,500 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 \$165,000 on the date of each of our annual stockholder meetings.

Each of the option grants described above will be granted under our 2018 Plan. 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.

In June of 2023, the Compensation Committee determined that the option grants should be capped at 250,000 options, on a pre-split basis, for the 2023 grant. The cap resulted in a significant reduction in the number of options that would have otherwise been awarded to our directors.

The following table sets forth in summary form information concerning the compensation of our non-employee directors during the year ended December 31, 2023:

NAME	FEES EARNED OR PAID IN CASH	OPTION AWARDS (\$) ⁽¹⁾	TOTAL (\$)
David L. Barker, Ph.D.	85,000	12,748	97,748
Yvonne Linney, Ph.D.	45,000	12,748	57,748
Albert Luderer, Ph.D.	65,000	12,748	77,748
Hannah Mamuszka	47,500	12,748	60,248
Aleksandar Rajkovic, M.D., Ph.D.	45,000	12,748	57,748
Christopher Twomey	60,000	12,748	72,748
Kristiina Vuori, M.D., Ph.D.	57,500	12,748	70,248
Vincent Wong, J.D.	50,000	12,748	62,748

(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, 2023, as determined in accordance with FASB ASC 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. Each of our non-employee directors was granted a stock option to purchase 250,000 shares of our common stock on June 14, 2023, at an exercise price of \$0.7458 per share (on a pre-split basis). As of December 31, 2023, the aggregate number of shares outstanding under all options to purchase our common stock held by our non-employee directors were: Dr. Barker 50,824; Dr. Linney 56,808; Dr. Luderer 54,862; Ms. Mamuszka 58,808; Dr. Rajkovic 60,940; Mr. Twomey 53,958; Dr. Vuori 53,743; and Mr. Wong 53,647. As of December 31, 2023, none of our non-employee directors held other unvested stock awards.

ITEM 402(v) PAY VERSUS PERFORMANCE DISCLOSURE

The disclosure included in this section is prescribed by Securities and Exchange Commission (“SEC”) rules and does not necessarily align with how the Company or the Compensation Committee view the link between the Company’s performance and named executive officer (“NEO”) pay. This disclosure is intended to comply with the requirements of Section 953(a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act and Item 402(v) of Regulation S-K applicable to “smaller reporting companies” and provides the following information regarding the relationship between executive “compensation actually paid” (as determined in accordance with the rules prescribed under Item 402(v) of Regulation S-K) to (i) our principal executive officer (“PEO”) during each of 2021, 2022, and 2023, and (ii) our other non-PEO NEOs (determined as an average, as set forth below) during each of 2021, 2022, and 2023, and our financial performance. For information about our executive compensation program and how we align executive compensation with Company performance, refer to the “Executive and Director Compensation” section of this proxy statement.

Required Tabular Disclosure of Pay Versus Performance

The amounts set forth below under the headings “Compensation Actually Paid to PEO” and “Average Compensation Actually Paid to Non-PEO NEOs” have been calculated in a manner consistent with Item 402(v) of Regulation S-K. Use of the term “compensation actually paid” (or “CAP”) is required by the SEC’s rules and as a result of the calculation methodology required by the SEC, such amounts differ from compensation actually received by the individuals and the compensation decisions described in the “Executive and Director Compensation” section above.

The following table provides the information required for our NEOs for each of the fiscal years ended December 31, 2023, December 31, 2022, and December 31, 2021 along with the financial measures required for each fiscal year:

Year	Summary Compensation Table Total for PEO ⁽¹⁾ \$	Compensation Actually Paid to PEO ⁽²⁾⁽³⁾ \$	Average Summary Compensation Table Total for Non-PEO NEOs ⁽⁴⁾ \$	Average Compensation Actually Paid to Non-PEO NEOs ⁽²⁾⁽³⁾⁽⁴⁾ \$	Value of Initial Fixed \$100 Investment Based on Total Shareholder Return ⁽⁵⁾ \$	Net Income (Loss) (in millions) ⁽⁶⁾ \$
2023	1,532,608	(949,350)	1,034,215	59,870	6.14	(232.5)
2022	2,766,572	740,062	4,721,149	(1,172,710)	47.40	(132.6)
2021	7,580,471	5,353,877	2,658,190	2,302,834	97.08	(72.4)

(1) Our PEO for all fiscal years is R. Erik Holmlin, Ph.D., our Chief Executive Officer. The dollar amounts reported in this column are the amounts of total compensation reported in the “Total” column of the Summary Compensation Table for our PEO for each relevant year.

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- (2) The dollar amounts reported represent the amount of CAP, as computed in accordance with Item 402(v) of Regulation S-K. The dollar amounts do not reflect the actual amount of compensation earned or paid to our PEO or NEOs during the applicable year. In accordance with the requirements of Item 402(v) of Regulation S-K, the following adjustments were made to the PEO's total compensation to determine the compensation actually paid:

	2023		2022		2021	
	PEO	Average Non-PEO NEOs	PEO	Average Non-PEO NEOs	PEO	Average Non-PEO NEOs
Total Compensation from Summary Compensation Table	\$ 1,532,608	\$ 1,034,215	\$ 2,766,572	\$ 4,721,149	\$ 7,580,471	\$ 2,658,190
Adjustments for Pension						
Adjustment Summary Compensation Table Pension	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —
Amount added for current year service cost	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —
Amount added for prior service cost impacting current year	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —
Total Adjustments for Pension	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —
Adjustments for Equity Awards*						
Deduct: Grant date fair values in the Summary Compensation Table	\$ (642,036)	\$ (411,869)	\$ (1,932,000)	\$ (4,209,406)	\$ (6,919,630)	\$ (2,324,715)
Add: Year-end fair value of unvested awards granted in the current year	\$ 218,095	\$ 133,013	\$ 1,477,244	\$ 422,070	\$ 3,500,857	\$ 1,222,555
Add: Year-over-year difference of year-end fair values for unvested awards granted in prior years	\$ (1,667,418)	\$ (532,738)	\$ (1,629,853)	\$ (298,317)	\$ (46,597)	\$ (2,497)
Add: Fair values at vest date for awards granted and vested in current year	\$ 136,688	\$ 58,554	\$ 567,094	\$ 227,002	\$ 690,165	\$ 122,448
Add: Difference in fair values between prior year-end fair values and vest date fair values for awards granted in prior years	\$ (527,287)	\$ (221,306)	\$ (508,995)	\$ (1,767,929)	\$ 548,611	\$ 626,852
Deduct: Forfeitures during current year equal to prior year-end fair value	\$ —	\$ —	\$ —	\$ (267,278)	\$ —	\$ —
Add: Dividends or dividend equivalents not otherwise included in total compensation	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —
Total Adjustments for Equity Awards	\$ (2,481,958)	\$ (974,345)	\$ (2,026,511)	\$ (5,893,858)	\$ (2,226,594)	\$ (355,356)
Compensation Actually Paid (CAP)	\$ (949,350)	\$ 59,870	\$ 740,062	\$ (1,172,710)	\$ 5,353,877	\$ 2,302,834

* Amount of equity award adjustments may differ from amount reported in the table above due to rounding.

- (3a) The following summarizes the valuation assumptions used for stock option awards included as part of CAP:
- Expected life of each stock option is based on the "simplified method" using an average of the remaining vest and remaining term, as of the vest/fiscal year end ("FYE") date.
 - Strike price is based on each grant date closing price and asset price is based on each vest/FYE closing price.
 - Risk free rate is based on the Treasury Constant Maturity rate closest to the remaining expected life as of the vest/FYE date.
 - Historical volatility is based on daily price history for each expected life (years) prior to each vest/FYE date. Closing prices provided by S&P Capital IQ are adjusted for dividends and splits.
 - Represents annual dividend yield on each vest/FYE date.

- (3b) The following table illustrates the valuation assumptions as of the vesting date for awards that vested in each of 2021, 2022 and 2023:

	For Stock Options Vesting in			Weighted Average Fair Value at vesting	For Restricted Shares and Restricted Stock Units		
	2023	2022	2021		2023	2022	2021
	Expected Volatility	116.61%-163.31%	134.19% - 171.98%		165.74% - 186.55%		\$6.63
Expected dividend yield	0%	0%	0%				
Expected term, in years	3.0 – 5.0 years	3.0 – 5.0 years	3.5 – 5.0 years				
Risk-free interest rate	3.46% - 5.03%	0.97% - 4.48%	0.17% - 1.22%				

- (3c) PSUs valued as part of CAP reflect expected performance at each valuation date. No PSUs vested in 2021, 2022 or 2023.
- (4) Reflects the average Summary Compensation Table total compensation and average CAP, respectively, for the following NEOs, as a group, in each relevant year:
- 2023: Mark Oldakowski and Alka Chaubey
2022: Mark Oldakowski, Alka Chaubey, and Soheil Shams
2021: Mark Oldakowski and Richard Shippy
- (5) Total shareholder return ("TSR") is determined based on the value of an initial fixed investment of \$100 on December 31, 2020. Cumulative TSR is calculated by dividing the sum of the cumulative amount of dividends for the measurement period, assuming dividend reinvestment, and the difference between our share price at the end and the beginning of the measurement period by our share price at the beginning of the measurement period.
- (6) The dollar amounts reported represent the amount of net income (loss) reflected in our audited financial statements for the applicable year.

Required Disclosure of Relationships Between CAP and Financial Performance Measures

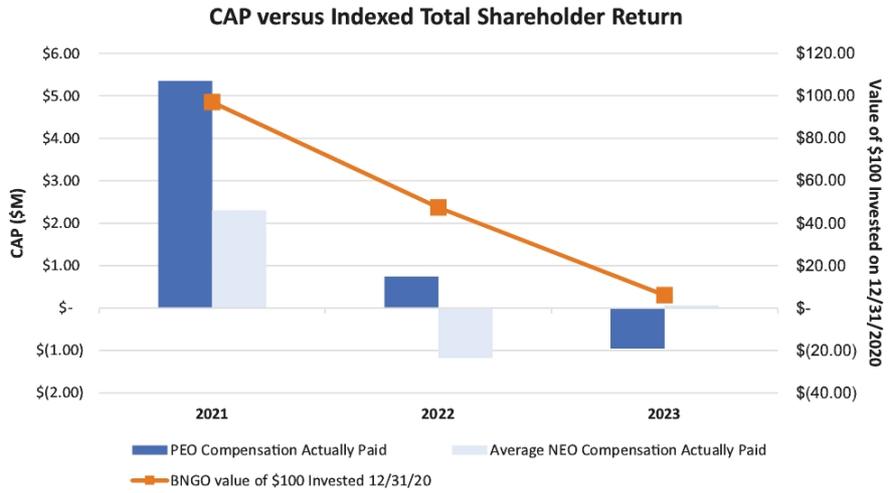
As required by Item 402(v) of Regulation S-K, we are providing the descriptions below of the relationship between CAP (as calculated in accordance with the SEC rules and described above) and the following measures:

- Cumulative TSR, measured starting from December 31, 2020 for each covered fiscal year; and
- Net Income (Loss).

As noted above, CAP for purposes of the tabular disclosure and the following graphs was calculated in accordance with SEC rules and does not fully represent the actual final amount of compensation earned by or actually paid to our NEOs during the applicable years.

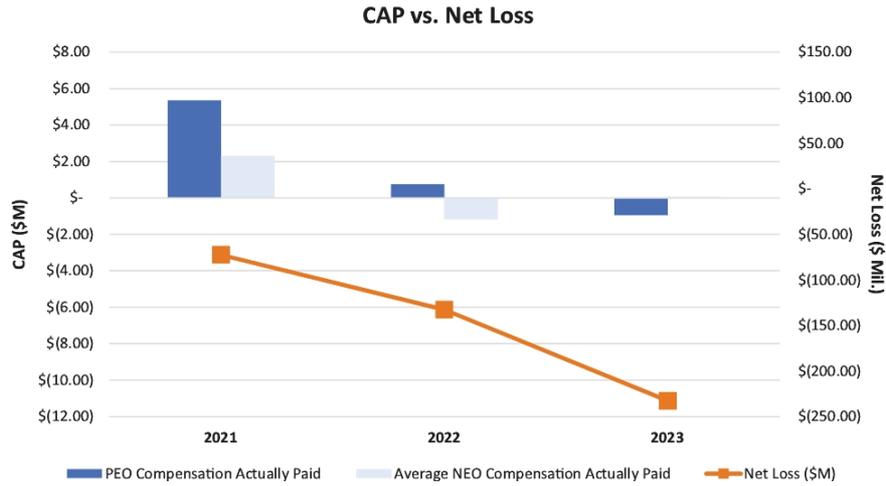
CAP and Cumulative TSR

The graph below shows the relationship between the CAP for our PEO, the average CAP for our non-PEO NEOs, and the Company’s cumulative TSR over the three most recently completed fiscal years.



CAP and Net Income (Loss)

The graph below shows the relationship between CAP for our PEO and the average CAP for our non-PEO NEOs and net loss reported for the three years presented in the table.



All information provided above under the “Item 402(v) Pay Versus Performance” heading will not be deemed to be incorporated by reference into any filing of the Company under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing, except to the extent the Company specifically incorporates such information by reference.

TRANSACTIONS WITH RELATED PERSONS AND INDEMNIFICATION

RELATED-PERSON TRANSACTIONS POLICY AND PROCEDURES

The Company has 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" and except as set forth below, there were no transactions since January 1, 2022 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, 2023 or 2022; 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 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.

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The limitation of liability and indemnification provisions in our Certificate of Incorporation and 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.

ADDITIONAL FILINGS

We make available, free of charge on our website, all of our filings that are made electronically with the SEC, including Forms 10-K, 10-Q and 8-K. To access these filings, go to our website ir.bionanogenomis.com and click on “SEC Filings” under the “Financial & Filings” heading. Copies of our Annual Report on Form 10-K for the year ended 2023, including financial statements and schedules thereto, filed with the SEC, are also available without charge to stockholders by contacting the Secretary of Bionano Genomics, Inc., 9540 Towne Centre Drive, Suite 100, San Diego, CA 92121 or call us at 858-888-7600, or by email at ir@bionano.com.

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. This discretionary authority is granted when you sign the form of proxy.

By Order of the Board of Directors

/s/ Jonathan Dixon

Jonathan Dixon
Secretary

April 26, 2024

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, 2023 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, INC.
9540 TOWNE CENTRE DRIVE
SUITE 100
SAN DIEGO, CA 92121



SCAN TO
VIEW MATERIALS & VOTE

VOTE BY INTERNET

Before The Meeting - Go to www.proxyvote.com or scan the QR Barcode above

Use the Internet to transmit your voting instructions and for electronic delivery of information up until 11:59 p.m. Eastern Time on June 17, 2024. 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/BNGO2024

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 17, 2024. 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:

V47161-P11196

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.		For All	Withhold All	For All Except	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.	
The Board of Directors recommends you vote FOR the following proposal:		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
1.	Election of Class III Directors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	
	Nominees:					
	01) Yvonne Linney, Ph.D.					
	02) Aleksandar Rajkovic, M.D., Ph.D.					
	03) Christopher Twomey					
The Board of Directors recommends you vote FOR the following proposals 2 and 3:						
		For	Against	Abstain		
2.	Approval, on an advisory basis, of the compensation of the Company's named executive officers, as disclosed in the proxy statement.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
3.	To ratify the selection of BDO USA, P.C. 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, 2024.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
NOTE: The holders of your proxy may vote in their discretion upon any other business that may properly come before the meeting or any adjournment or postponement thereof.						
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.						
<input type="text"/>		<input type="text"/>		<input type="text"/>		<input type="text"/>
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 on Form 10-K are available at www.proxyvote.com.

V47162-P11196

BIONANO GENOMICS, INC.
Annual Meeting of Stockholders
June 18, 2024, 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 Gülsen Kama 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/BNGO2024, on Tuesday, June 18, 2024, 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 holders of your proxy 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 17, 2024.

Continued and to be signed on reverse side