

**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 under §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
- 
-

BIONANO GENOMICS, INC.

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



**NOTICE OF SPECIAL MEETING OF STOCKHOLDERS**

**To Be Held On Wednesday, January 15, 2025**

Dear Stockholders:

You are cordially invited to attend a Special Meeting of Stockholders (the “Special Meeting”) of Bionano Genomics, Inc., a Delaware corporation (the “Company”), to be held on Wednesday, January 15, 2025, at 10:00 a.m. Pacific Time. The Special Meeting will be held in a virtual meeting format only, via live audio webcast. **You will not be able to attend the Special Meeting in person.** You will be able to attend and participate in the Special Meeting online by visiting <https://www.virtualshareholdermeeting.com/BNGO2025SM>, 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* (the “Notice”), on your voting instruction form, on your proxy card or on the instructions that accompanied your proxy materials to participate in the virtual Special Meeting. **As always, we encourage you to vote your shares prior to the Special Meeting.**

You are being asked to vote on the following matter:

1. To approve, for purposes of complying with Nasdaq Listing Rule 5635(d), the issuance of up to an aggregate of 19,762,226 shares of common stock upon the exercise of certain Series C warrants and Series D warrants issued pursuant to the securities purchase agreement, dated October 30, 2024, between the Company and certain institutional investors thereto. We refer to this as the “Share Issuance Proposal” or “Proposal 1.”
2. To approve a series of alternate amendments to the Company’s Amended and Restated Certificate of Incorporation, as amended, to effect, at the option of our Board of Directors, a reverse stock split of our common stock at a ratio between 1-for- 25 and 1-for-75, inclusive, as determined by our Board of Directors in its sole discretion and with such reverse stock split to be effected at such time and date, if at all, as determined by our board of directors in its sole discretion. We refer to this as the “Reverse Stock Split Proposal” or “Proposal 2.”

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

The record date for the Special Meeting is Thursday, November 21, 2024. Only stockholders of record at the close of business on that date may vote at the Special Meeting or any adjournment thereof. Stockholders of record must have the control number included in your Notice, on your voting instruction form, on your proxy card or on the instructions that accompanied your proxy materials to participate in the Special Meeting. If your shares are held in street name and your voting instruction form or Notice indicates that you may vote those shares through the <http://www.ProxyVote.com> website, then you may access, participate in, and vote at the Special Meeting with the control number indicated in your Notice, on your voting instruction form, on your proxy card or on the instructions that accompanied your 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 Special Meeting) and obtain a “legal proxy” in order to be able to participate in or vote at the Special Meeting.

**Important Notice Regarding the Availability of Proxy Materials for the Special Meeting to Be Held on Wednesday, January 15, 2025 at 10:00 a.m. Pacific Time via live audio webcast at [www.virtualshareholdermeeting.com/BNGO2025SM](https://www.virtualshareholdermeeting.com/BNGO2025SM).**

---

[TABLE OF CONTENTS](#)

The Company's Notice and proxy materials are available at [www.proxyvote.com](http://www.proxyvote.com).

By Order of the Board of Directors

/s/ Jonathan Dixon

---

Jonathan Dixon  
Secretary

San Diego, California

, 2024

**You are cordially invited to attend the virtual Special Meeting. Whether or not you expect to attend the Special Meeting, PLEASE VOTE YOUR SHARES. As an alternative to voting online at the Special Meeting, you may vote via the internet, by telephone or, if you receive a paper proxy card, by mailing the completed proxy card as promptly as possible in order to ensure your representation at the Special Meeting. 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 Special Meeting. Please note, however, that if your shares are held of record by a bank, broker or other nominee and you wish to vote at the Special Meeting, you must follow the instructions from such organization and obtain a proxy issued in your name from that record holder.**

---

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

**PROXY STATEMENT**  
**FOR THE SPECIAL MEETING OF STOCKHOLDERS**

**To Be Held on Wednesday, January 15, 2025**

Our Board of Directors (sometimes referred to as the “Board”) is soliciting your proxy to vote at a Special Meeting of Stockholders (the “Special 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/BNGO2025SM](http://www.virtualshareholdermeeting.com/BNGO2025SM), on Wednesday, January 15, 2025, 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 Special Meeting, we have elected to furnish this Proxy Statement and a form of proxy card (together, the “proxy materials”), to our stockholders primarily via the internet. On or about \_\_\_\_\_, 2024, we expect to mail to our stockholders a *Notice of Internet Availability of Proxy Materials* (the “Notice”) that contains notice of the Special Meeting and instructions on how to access our proxy materials on the internet, how to vote at the Special Meeting and how to request printed copies of the proxy materials.

Stockholders of record at the close of business on Thursday, November 21, 2024 (the “Record Date”) will be entitled to vote at the Special Meeting. On the Record Date, there were 101,993,225 shares of common stock outstanding. A list of stockholders entitled to vote at the Special Meeting will be available for examination by stockholders for any purpose germane to the Special Meeting for ten days before the Special Meeting during normal business hours at our address above.

**MEETING AGENDA**

<b>Proposals</b>	<b>Page</b>	<b>Board Recommendation</b>
<b>Proposal 1:</b> To approve, for purposes of complying with Nasdaq Listing Rule 5635(d), the issuance of up to an aggregate of 19,762,226 shares of common stock upon the exercise of certain Series C Warrants and Series D Warrants (each, as defined below) issued pursuant to the securities purchase agreement, dated October 30, 2024, between the Company and certain institutional investors thereto (the “Purchase Agreement”) (“Proposal 1” or the “Share Issuance Proposal”); and	8	For
<b>Proposal 2:</b> Approval of a series of alternate amendments to the Company’s Amended and Restated Certificate of Incorporation, as amended, to effect, at the option of our Board of Directors, a reverse stock split of our common stock at a ratio between 1-for-25 and 1-for-75, inclusive, as determined by our Board of Directors in its sole discretion and with such reverse stock split to be effected at such time and date, if at all, as determined by our board of directors in its sole discretion (“Proposal 2” or the “Reverse Stock Split Proposal”).	11	For

---

TABLE OF CONTENTS

**Table of Contents**

<u>QUESTIONS AND ANSWERS ABOUT THESE PROXY MATERIALS AND VOTING</u>	<u>1</u>
<u>PROPOSAL 1: APPROVAL OF COMMON STOCK ISSUANCE UNDERLYING PURCHASE WARRANTS</u>	<u>8</u>
<u>PROPOSAL 2: APPROVAL OF ALTERNATE AMENDMENTS TO EFFECT A REVERSE SPLIT</u>	<u>11</u>
<u>HOUSEHOLDING OF PROXY MATERIALS</u>	<u>20</u>
<u>OTHER MATTERS</u>	<u>22</u>

**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 Securities and Exchange Commission (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 Special Meeting, including at any one or more adjournments or postponements of the Special 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 \_\_\_\_\_, 2024 to all stockholders of record entitled to vote at the Special 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 \_\_\_\_\_, 2024.

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

The Special Meeting will be held on Wednesday, January 15, 2025, at 10:00 a.m. Pacific Time. The Special 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 Special Meeting online is provided below:

- Any stockholder may listen to the Special Meeting via audio webcast at <https://www.virtualshareholdermeeting.com/BNGO2025SM>. The webcast will begin at 10:00 a.m. Pacific Time.
- Stockholders of record as of the Record Date may vote during the Special 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 Special Meeting via the internet are posted at <https://www.virtualshareholdermeeting.com/BNGO2025SM>.

We recommend that you log in approximately 5 minutes before 10:00 a.m. Pacific Time to ensure you are logged in when the Special Meeting starts. The information on our website is not incorporated by reference into this Proxy Statement.

If you plan to vote during the Special 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 Special Meeting online?**

You will need the control number included on your Notice, on your voting instruction form, on your proxy card or on the instructions that accompanied your proxy materials in order to be able to vote your shares or submit questions during the Special 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 Special Meeting via the internet are posted at [www.virtualshareholdermeeting.com/BNGO2025SM](http://www.virtualshareholdermeeting.com/BNGO2025SM).

**For the Special 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 Special Meeting in advance of the Special Meeting through [www.virtualshareholdermeeting.com/BNGO2025SM](http://www.virtualshareholdermeeting.com/BNGO2025SM). We plan to spend up to 15 minutes answering appropriate stockholder questions at the conclusion of the Special Meeting and will include as many stockholder questions that comply with the rules of conduct for the Special 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 Special Meeting will not be responded to. Stockholders of record as of the Record Date may also submit questions beginning 15

[TABLE OF CONTENTS](#)

minutes prior to and during the Special Meeting by logging in to [www.virtualshareholdermeeting.com/BNGO2025SM](http://www.virtualshareholdermeeting.com/BNGO2025SM) and entering the control number included on the Notice, voting instruction form, proxy card or on the instructions that accompanied your proxy materials.

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

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

**Who can vote at the Special Meeting?**

On the Record Date, there were 101,993,225 shares of common stock outstanding and entitled to vote. Only stockholders of record on the Record Date will be entitled to vote at the Special 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 Special Meeting or vote by proxy. Whether or not you plan to attend the Special 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 Special 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 Special 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 the 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 two matters scheduled for a vote:

- **Proposal 1:** To approve, for purposes of complying with Nasdaq Listing Rule 5635(d), the issuance of up to an aggregate of 19,762,226 shares of common stock upon exercise of certain Series C Warrants and Series D Warrants issued pursuant to the Purchase Agreement.
- **Proposal 2:** To approve a series of alternate amendments to the Company’s Amended and Restated Certificate of Incorporation, as amended, to effect, at the option of our Board of Directors, a reverse stock

## TABLE OF CONTENTS

split of our common stock at a ratio between 1-for-25 and 1-for-75, inclusive, as determined by our Board of Directors in its sole discretion and with such reverse stock split to be effected at such time and date, if at all, as determined by our board of directors in its sole discretion (the “Reverse Stock Split Proposal”).

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

The Board does not know of any other matters to be brought before the Special Meeting. If any other matters are properly brought before the Special 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 Special 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 Special Meeting, we urge you to vote by proxy to ensure your vote is counted. You may still attend the Special Meeting and vote online during the meeting even if you have already voted by proxy.

- **VOTE BY INTERNET:** To vote through the internet, go to [www.proxyvote.com](http://www.proxyvote.com) to complete an electronic proxy card. You will be asked to provide the control number from the Notice, on your voting instruction form, on your proxy card or on the instructions that accompanied your proxy materials. Your internet vote must be received by 11:59 p.m., Eastern Time on Tuesday, January 14, 2025 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 Tuesday, January 14, 2025 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 Special Meeting, we will vote your shares as you direct.
- **VOTE DURING MEETING:** To vote online during the Special Meeting, follow the provided instructions to join the Special Meeting at <https://www.virtualshareholdermeeting.com/BNGO2025SM>, starting at 10:00 a.m. Pacific Time on Tuesday, January 14, 2025.

#### *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 Special Meeting, you will need the control number included on your Notice, on your voting instruction form, 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 Special Meeting, your shares will not be voted.



## TABLE OF CONTENTS

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, approving the issuance of shares of common stock issuable upon exercise of certain warrants, and “For” Proposal 2, approving a series of alternate amendments to the Company’s Amended and Restated Certificate of Incorporation, as amended, to effect, at the option of our Board of Directors, a reverse stock split. If any other matter is properly presented at the Special 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 Share Issuance Proposal) is 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 2 (the Reverse Stock Split Proposal) should be considered “routine” and, accordingly, we believe that your broker may vote your shares on such proposals without instructions from you.

### **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 for such matter. When there is at least one “routine” matter to be considered at a meeting, a “broker non-vote” occurs when a separate matter is deemed “non-routine” and the broker, bank or other securities intermediary holding shares for a beneficial owner does not have discretionary voting authority with respect to the “non-routine” matter being considered and has not received instructions from the beneficial owner. Such un-voted shares on “non-routine” matters are counted as broker non-votes.

Because the NYSE has determined that Proposal 1 (the Share Issuance Proposal) is considered to be “non-routine”, we therefore expect broker non-votes for Proposal 1 at the Special Meeting. However, because the NYSE has determined that Proposal 2 (the Reverse Stock Split Proposal) is considered to be “routine”, we do not anticipate any broker non-votes for Proposal 2 at the Special Meeting.

**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 Special 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 Special Meeting which will be hosted via the internet. Simply attending the Special Meeting online will not, by itself, revoke your proxy. Even if you plan to attend the Special 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 Special 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 Share Issuance Proposal) and Proposal 2 (the Reverse Stock Split), the inspector of elections will separately count votes “For” and “Against,” abstentions and, as applicable, broker non-votes.

Abstentions will not be counted towards the vote total and will have no effect on Proposal 1 (the Share Issuance Proposal) or Proposal 2 (the Reverse Stock Split).

We have been advised by the NYSE that Proposal 1 (the Share Issuance Proposal) is considered “non-routine” under NYSE rules, and accordingly, your broker may not vote your shares on such proposals without instructions from you. Therefore, we expect “broker non-votes” to exist in connection with Proposal 1 (the Share Issuance Proposal); however, we believe such broker non-votes will have no effect because they are not considered as “votes cast” under Proposal 1.

We have also been advised by the NYSE that Proposal 2 (the Reverse Stock Split Proposal) is considered “routine” under NYSE rules, and accordingly, your broker may vote your shares on such proposals without instructions from you. Therefore, we do not expect “broker non-votes” to exist in connection with this proposal.

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

The following table summarizes the minimum vote needed to approve the proposal and the effect of abstentions.

<b>Proposal Number</b>	<b>Proposal Description</b>	<b>Vote Required for Approval</b>	<b>Voting Options</b>	<b>Effect of Abstentions</b>	<b>Effect of Broker Non-Votes (if any)</b>	<b>Board Recommendation</b>
1	Share Issuance Proposal	“For” votes from the holders of a majority of total votes cast on the matter	FOR, AGAINST, or ABSTAIN	No effect	No effect	FOR
2	Reverse Stock Split	“For” votes from the holders of a majority of total votes cast on the matter	FOR, AGAINST, or ABSTAIN	No effect	Not Applicable <sup>(1)</sup>	FOR

(1) NYSE has advised us that this proposal should be considered a “routine” matter under NYSE rules. Although our shares are not listed with the NYSE, the NYSE regulates broker-dealers and their discretion to vote on stockholder proposals. Accordingly, if you hold your shares in street name and do not provide voting instructions to your broker that holds your shares, we believe your broker should have discretionary authority under NYSE rules to vote your shares on this proposal absent additional instructions from you. Given such discretionary authority, we do not anticipate broker non-votes for this proposal.

**What Happens if Proposal 1 is approved at the Special Meeting?**

If Proposal 1 is approved at the Special Meeting, the holders of the Purchase Warrants (as defined below) will be permitted to exercise the Purchase Warrants in exchange for up to an aggregate of 19,762,226 shares of common stock, subject to applicable beneficial ownership limitations contained in the Purchase Warrants and described below, and, if exercised for cash, we would receive proceeds of up to an additional approximately \$6 million. For additional information, please see “Proposal 1 - Potential Effects of Approval of this Proposal” below.

**What Happens if Proposal 1 is not approved at the Special Meeting?**

If Proposal 1 is not approved at the Special Meeting, the Purchase Warrants will not be exercisable and we would not realize proceeds of up to an aggregate of approximately \$6 million had such Purchase Warrants been exercised for cash, which could adversely impact our ability to fund our operations. In addition, we are contractually obligated pursuant to the terms of the Purchase Agreement to call a special meeting of stockholders every ninety (90) days following the date of the Special Meeting until the earlier of (i) the date on which the stockholders of the Company approve the issuance of the shares issuable upon the exercise of the Purchase Warrants and (ii) the date on which the Purchase Warrants are no longer outstanding. Accordingly, if Proposal 1 is not approved at the Special Meeting, the Company will incur substantial additional expenses and administrative and associated costs to satisfy this obligation to continue holding stockholder meetings to obtain stockholder approval and it will require significant time and attention by our Board of Directors and management, diverting their focus from the pursuit of our business strategy. Finally, in the event that sufficient votes in favor of Proposal 1 are not received by the date of the Special Meeting we may adjourn the Special Meeting to permit further solicitation of proxies.

**What Happens if Proposal 2 is approved at the Special Meeting?**

If Proposal 2 is approved at the Special Meeting, each 25 to 75 shares of our common stock owned by a stockholder (depending on the Reverse Stock Split ratio selected by the Board), will be combined into one new share of our common stock without increasing or decreasing the par value thereof. Based upon the Reverse Stock Split ratio selected by the Board, proportionate adjustments will be made to the per share exercise price and/or the number of shares issuable upon the exercise or vesting of all then outstanding stock options, restricted stock units and warrants, which will result in a proportional decrease in the number of shares of our common stock reserved for issuance upon exercise or vesting of such stock options, restricted stock units and warrants, and, in the case of stock options and warrants, a proportional increase in the exercise price of all such stock options and warrants. In addition, the number of shares then reserved for issuance under our equity compensation plans will be reduced proportionately based upon the Reverse Stock Split ratio selected by the Board. For additional information, please see “Proposal 2 - Principal Effects of a Reverse Stock Split” below.

**What Happens if Proposal 2 is not approved at the Special Meeting?**

Our common stock is listed on the Nasdaq Capital Market, which has as one of its continued listing requirements a minimum bid price of at least \$1.00 per share (the “Minimum Bid Price Requirement”). As of the Record Date, the closing price of our common stock on The Nasdaq Capital Market was \$0.22. If Proposal 2 is not approved at

## TABLE OF CONTENTS

the Special Meeting, we will likely be unable to regain compliance with the Minimum Bid Price Requirement and our common stock could be subject to delisting from The Nasdaq Capital Market. Delisting may cause a number of potential harms to us and our stockholders, including an adverse effect on the liquidity of our common stock, increased volatility in our common stock, the loss of current or future coverage by certain sell-side analysts and/or a diminution of institutional investor interest. Delisting could also cause a loss of confidence of our collaborators, vendors and employees, which could harm our business and future prospects.

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

A quorum of stockholders is necessary to hold the Special 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 Special Meeting. On the Record Date, there were 101,993,225 shares of common stock outstanding and entitled to vote.

**Thus, the holders of 33,963,744 shares of common stock must be present by virtual attendance or represented by proxy at the Special 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 Special Meeting. Abstentions will be counted towards the quorum requirement. If there is no quorum, the chair of the Special Meeting or the holders of a majority of shares of our common stock present by virtual attendance at the Special Meeting or represented by proxy may adjourn the Special Meeting to another date.

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

Preliminary voting results will be announced at the Special 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 Special Meeting. If final voting results are not available to us in time to file a Form 8-K within four business days after the Special 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.

**PROPOSAL 1**

**TO APPROVE, FOR PURPOSES OF COMPLYING WITH NASDAQ LISTING RULE 5635(D), THE  
ISSUANCE OF UP TO AN AGGREGATE OF 19,762,226 SHARES OF COMMON STOCK ISSUABLE  
UPON EXERCISE OF THE PURCHASE WARRANTS ISSUED PURSUANT TO THE PURCHASE  
AGREEMENT**

**Background**

On October 30, 2024, the Company entered into the Purchase Agreement with certain institutional investors, pursuant to which the Company agreed to issue and sell, in a registered direct offering priced at-the-market consistent with the rules of the Nasdaq Stock Market (the “Registered Direct Offering”), (i) an aggregate of 9,881,113 shares (the “Shares”) of the Company’s common stock, par value \$0.0001 per share, (ii) Series C warrants to purchase up to an aggregate of 9,881,113 shares of Common Stock (the “Series C Warrants”) and (iii) Series D warrants to purchase up to an aggregate of 9,881,113 shares of Common Stock (the “Series D Warrants”, and together with the Series C Warrants, the “Purchase Warrants”). The Shares were sold in combination with an accompanying Series C Warrant to purchase one share of common stock and an accompanying Series D Warrant to purchase one share of common stock for each Share sold. The combined purchase price of each Share and accompanying Purchase Warrants was \$0.3039 per share. The gross proceeds to the Company from the Registered Direct Offering were approximately \$3.0 million (excluding up to approximately \$6.0 million of aggregate gross proceeds that may be received in the future upon the cash exercise of the Purchase Warrants), before deducting placement agent fees and other offering expenses payable by the Company. The Purchase Warrants were issued to Armistice Capital Master Fund Ltd., CVI Investments, Inc., and Anson Investments Master Fund LP. The Registered Direct Offering was completed on October 30, 2024.

Under the Purchase Agreement, the Company is obligated to hold an annual or special meeting of stockholders on or prior to the date that is ninety (90) days following the closing date of the offering for the purpose of obtaining approval as may be required by the applicable rules and regulations of Nasdaq (or any successor entity) from the stockholders of the Company with respect to the issuance of the shares of common stock issuable upon the exercise of the Purchase Warrants (the “Stockholder Approval”). The Company also agreed to call a meeting every ninety (90) days thereafter to seek Stockholder Approval until such approval is effective or the Purchase Warrants are no longer outstanding.

Each Purchase Warrant is exercisable for one share of common stock at an exercise price of \$0.3039 per share beginning on the effective date of the Stockholder Approval. The exercise price and number of shares of common stock issuable upon exercise is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our common stock and the exercise price. The Series C Warrants will expire on the five-year anniversary of the Stockholder Approval. The Series D Warrants will expire on the 18-month anniversary of the Stockholder Approval.

A holder (together with its affiliates) of the Purchase Warrants, may not exercise any portion of the Purchase Warrants, to the extent that the holder would own more than 4.99% of the Company’s outstanding common stock immediately after exercise, as such percentage ownership is determined in accordance with the terms of the Purchase Warrants. In lieu of making the cash payment otherwise contemplated to be made to the Company upon exercise of a Purchase Warrant, the holder may elect instead to receive upon such exercise (either in whole or in part) the net number of shares of common stock determined according to a formula set forth in the Purchase Warrants.

**Why We Need Stockholder Approval**

Nasdaq Listing Rule 5635(d) requires stockholder approval in connection with a transaction, other than a public offering, involving the sale or issuance by the issuer of common stock (or securities convertible into or exchangeable for common stock) equal to 20% or more of the common stock or 20% or more of the voting power outstanding before the issuance for a price that is less than the lower of: (i) the closing price of the common stock immediately preceding the signing of the binding agreement for the issuance of such securities; or (ii) the average closing price of the common stock for the five trading days immediately preceding the signing of the binding agreement for the issuance of such securities. Under Nasdaq’s rules, when an issuance includes common stock (or the equivalent) and warrants, it is necessary to attribute a value of \$0.125, plus any amount that the warrant is currently in the money or could be in the money due to adjustments, such as for price protection, to each warrant for purposes of determining whether the common stock portion is at a discount.

## TABLE OF CONTENTS

Stockholder approval is required as the potential issuance of the shares of common stock underlying the Purchase Warrants may not constitute a public offering under the Nasdaq Listing Rules and certain pricing conditions, described in the following sentence, were not met. The conditions were that either (i) the offering was an at-the-market offering under Nasdaq rules and such price equaled or exceeded the sum of (a) the applicable “Minimum Price” per share under Nasdaq Rule 5635(d) plus (b) \$0.125 per whole share of common stock underlying the Purchase Warrants or (ii) the offering was a discounted offering where the pricing and discount (including attributing a value of \$0.125 per whole share underlying the Purchase Warrants) met the pricing requirements under Nasdaq’s rules.

Neither the issuance of the Purchase Warrants pursuant to the Purchase Agreement nor the potential issuance of the shares of common stock underlying the Purchase Warrants would constitute a public offering under the Nasdaq Listing Rules. In addition, immediately prior to the execution of the Purchase Agreement, we had 92,112,112 shares of common stock issued and outstanding. Therefore, the potential issuance of up to 19,762,226 shares of common stock upon the exercise in full of the Purchase Warrants would have constituted greater than 20% of the shares of common stock outstanding immediately prior to the execution of the Purchase Agreement. Finally, while the Purchase Warrants were sold with a strike price that satisfied the applicable “Minimum Price” per share under Nasdaq Rule 5635(d), the combined purchase price of each share of common stock and accompanying Purchase Warrants was not at least \$0.125 above the Minimum Price. Accordingly, stockholder approval is required as the potential issuance of the shares of common stock underlying the Purchase Warrants may not constitute a public offering under the Nasdaq Listing Rules and the previously described pricing conditions were not met.

### **Potential Effects of Approval of this Proposal**

If approved, this Proposal 1 could result in the issuance of up to 19,762,226 shares of common stock upon the exercise of the Purchase Warrants subject to their respective beneficial ownership limitations. A concentration of ownership could adversely affect the prevailing market price and liquidity for the shares of common stock. Holders of our common stock or securities convertible into common stock could experience substantial dilution of their interests as a result of such exercise and could own or come to own a smaller percentage of our outstanding shares of common stock and, accordingly, a smaller percentage interest in the voting power, liquidation value and book value of the shares of common stock.

In addition, upon issuance of shares of common stock upon the exercise of the Purchase Warrants there would be a greater number of shares of our common stock eligible for sale in the public markets. Any such sales, or the anticipation of the possibility of such sales, represents an overhang on the market and could depress the market price of our common stock. Finally, the reservation of the shares underlying the Purchase Warrants precludes the Company from issuing such shares for other purposes including equity financings and we may be unable to raise additional capital as a result.

If the Share Issuance Proposal is approved and the Purchase Warrants are exercised for cash, we will receive proceeds of up to an additional approximately \$6 million, which would allow us to continue to execute upon our current business plan.

### **Potential Effects of Non-Approval of this Proposal**

The Company is not seeking the approval of stockholders to authorize its entry into the transaction described above, as the Company has already done so and such documents are already binding obligations of the Company. The failure of stockholders to approve this proposal will not negate the existing terms of the transactions or the relevant documents, which will remain binding on the Company.

The failure of our stockholders to approve the Share Issuance Proposal and the resulting inability of investors to exercise the Purchase Warrants for cash may materially adversely affect the Company’s future ability to raise equity or debt capital from third parties on attractive terms, if at all, and also risks significantly impairing the operations, assets and ongoing viability of the Company. Based on our current business plan, our existing cash and cash equivalents and short-term investments (including the proceeds of recent financing) will be sufficient to fund our operating expenses and capital expenditure requirements through at least the fourth quarter of 2024. However, if we are not able to raise additional capital in the very near-term, it is likely that we will have to delay, reduce or eliminate significant portions of our development and commercialization efforts relating to our technologies and products and we may be unable to continue to expand our installed base of OGM systems, any of which could, among other things, negatively impact our revenue opportunities. We also may have to reduce marketing, customer support

[TABLE OF CONTENTS](#)

or other resources devoted to our products or technologies or cease operations entirely. Any of these factors could have a material adverse effect on our financial condition, operating results and business. If the Purchase Warrants are exercised for cash, we would realize an aggregate of up to approximately \$6 million in gross proceeds, before giving effect to any beneficial ownership limitations contained in the Purchase Warrants and described, below, which may have the effect of limiting the Purchase Warrant holders' ability to exercise the Purchase Warrants in full, or at all. If the Purchase Warrants cannot be exercised, we will not receive any such proceeds. Loss of these potential funds could jeopardize our ability to execute our business plan or fund our operations and if we are not able to raise sufficient additional capital in the very near term to fund our operations, we may need to further curtail or cease operations and seek protection by filing a voluntary petition for relief under the United States Bankruptcy Code.

In addition, if the Share Issuance Proposal is not approved, the Company is obligated under the terms of the Purchase Agreement to call a special meeting of its stockholders every ninety (90) days thereafter to seek Stockholder Approval until such approval is effective or the Purchase Warrants are no longer outstanding. The Company will incur substantial additional expenses and administrative and associated costs to satisfy this obligation to continue holding stockholder meetings to obtain stockholder approval and it will require significant time and attention by our Board of Directors and management, diverting their focus from the pursuit of our business strategy.

**Vote Required**

The approval of this proposal requires "For" votes from the holders of a majority of total votes cast on the proposal in accordance with Nasdaq Listing Rule 5635(e). Abstentions will have no effect on the proposal as they are not considered "votes cast". We have been advised by the NYSE that this Proposal 1 is considered "non-routine" under NYSE rules, and accordingly, your broker may not vote your shares without instructions from you. Therefore, we expect "broker non-votes" to exist in connection with this proposal but broker non-votes will have no effect on the proposal because they are not considered as "votes cast". If a proxy card is signed and returned or otherwise voted without marking voting selections, the persons named in your proxy will vote your shares "FOR" this proposal.

**THE BOARD OF DIRECTORS RECOMMENDS  
A VOTE "FOR" FOR THE APPROVAL OF PROPOSAL 1.**

**PROPOSAL 2**

**REVERSE STOCK SPLIT PROPOSAL**

Our Board has unanimously approved a series of alternate amendments to our Amended and Restated Certificate of Incorporation, as amended, each of which would effect a reverse stock split (a “Reverse Stock Split”) of all issued and outstanding shares of our common stock at a ratio ranging from 1-for-25 to 1-for-75, inclusive.

Accordingly, effecting a Reverse Stock Split would reduce the number of outstanding shares of our common stock. The effectiveness of any one of these amendments and the abandonment of the other amendments, or the abandonment of all of these amendments, will be determined by our Board following the Special Meeting and on or prior to the one-year anniversary of the date each Reverse Stock Split is approved by our stockholders. Our Board has recommended that these proposed amendments be presented to our stockholders for approval.

Our stockholders are being asked to approve these proposed amendments pursuant to Proposal 2, and to grant authorization to our Board to determine, at its option, whether to implement a Reverse Stock Split, including its specific timing and ratio. Should we receive the required stockholder approval for Proposal 2, our Board will have the sole authority to elect, at any time on or prior to the one-year anniversary of the date each Reverse Stock Split is approved by our stockholders, and without the need for any further action on the part of our stockholders whether to effect a Reverse Stock Split.

Notwithstanding approval of Proposal 2 by our stockholders, our Board may, at its sole option, abandon the proposed amendments and determine prior to the effectiveness of any filing with the Secretary of State of the State of Delaware not to effect any Reverse Stock Split, as permitted under Section 242(c) of the General Corporation Law of the State of Delaware.

**By approving Proposal 2, our stockholders will: (a) approve a series of alternate amendments to our Amended and Restated Certificate of Incorporation, as amended, pursuant to which any whole number of outstanding shares of common stock between and including 1-for-25 to 1-for-75 could be combined into one share of common stock; and (b) authorize our Board to file only one such amendment, as determined by the Board at its sole option, and to abandon each amendment not selected by the Board. Our Board may also elect not to undertake a Reverse Stock Split and therefore abandon all amendments.**

The text of the proposed form of Certificate of Amendment to our Amended and Restated Certificate of Incorporation, as amended, which we refer to as the Certificate of Amendment, is attached hereto as APPENDIX A.

We are proposing that our Board have the discretion to select the Reverse Stock Split ratio from within a range between and including 1-for-25 to 1-for-75, rather than proposing that stockholders approve a specific ratio at this time, in order to give our Board the flexibility to implement a Reverse Stock Split at a ratio that reflects the Board’s then-current assessment of the factors described below under “—Criteria to be Used for Determining Whether to Implement a Reverse Stock Split.” If the Board decides to implement a Reverse Stock Split, we will file the Certificate of Amendment with the Secretary of State of the State of Delaware effecting the Board’s chosen Reverse Stock Split at the close of business on the business day following its filing with the Secretary of State of the State of Delaware, or such later time as is chosen by the Board and set forth in the Certificate of Amendment. Except for adjustments that may result from the treatment of fractional shares as described below, each of our stockholders will hold the same percentage of our outstanding common stock immediately following a Reverse Stock Split as such stockholder holds immediately prior to such Reverse Stock Split.

**Reasons for a Reverse Stock Split**

*Potential improvement in the marketability and liquidity of our common stock.* Our Board believes that the higher market price of our common stock expected as a result of implementing a Reverse Stock Split could improve the marketability and liquidity of our common stock and encourage interest and trading in our common stock, including by long-term investors who may not find our shares attractive at their current prices.

- *Stock Price Requirements:* We understand that many brokerage houses, institutional investors and funds have internal policies and practices that either prohibit them from investing in low-priced stocks or tend to discourage individual brokers from recommending low-priced stocks to their customers or by restricting or limiting the ability to purchase such stocks on margin. Additionally, a Reverse Stock Split could help increase analyst and broker interest in our common stock as their internal policies might discourage them from following or recommending companies with low stock prices.



## TABLE OF CONTENTS

- *Stock Price Volatility:* Because of the trading volatility often associated with low-priced stocks, many brokerage houses and institutional investors have internal policies and practices that either prohibit them from investing in low-priced stocks or tend to discourage individual brokers from recommending low-priced stocks to their customers. Some of those policies and practices may make the processing of trades in low-priced stocks economically unattractive to brokers.
- *Transaction Costs:* Investors may be dissuaded from purchasing stocks below certain prices because brokers' commissions, as a percentage of the total transaction value, can be higher for low-priced stocks.

*Compliance with Nasdaq listing requirements.* Our common stock is listed on the Nasdaq Capital Market, which has as one of its continued listing requirements a minimum bid price of at least \$1.00 per share. As of the Record Date, the closing price of our common stock on The Nasdaq Capital Market was \$0.22. If we are unable to regain compliance with the Minimum Bid Price Requirement, our common stock could be subject to delisting from The Nasdaq Capital Market, which may cause a number of potential harms to us and our stockholders, including an adverse effect on the liquidity of our common stock, increased volatility in our common stock, the loss of current or future coverage by certain sell-side analysts and/or a diminution of institutional investor interest. Delisting could also cause a loss of confidence of our collaborators, vendors and employees, which could harm our business and future prospects. If our common stock were delisted by Nasdaq, our common stock could be eligible to trade on the OTC Bulletin Board, OTC-QB or another over-the-counter market. Any such alternative would likely result in it being more difficult for us to raise additional capital through the public or private sale of equity securities and for investors to dispose of or obtain accurate quotations as to the market value of our common stock. Moreover, if our common stock is delisted, it may come within the definition of "penny stock" under the Securities Exchange Act of 1934, as amended, which imposes additional sales practice requirements on broker-dealers who sell securities to persons other than established customers and accredited investors. These requirements may reduce trading activity in the secondary market for our common stock and may impact the ability or willingness of broker-dealers to sell our securities which could limit the ability of stockholders to sell their securities in the public market and limit our ability to attract and retain qualified employees or raise additional capital in the future.

A Reverse Stock Split would decrease the total number of shares of our common stock outstanding and should, absent other factors, proportionately increase the market price of our common stock above \$1.00 per share. Therefore, the Board believes that a Reverse Stock Split is a potentially effective means for us to maintain compliance with the Minimum Bid Price Requirement and avoid, or at least mitigate, the likely adverse consequences of our common stock being delisted.

*Increase in the number of authorized and available shares of common stock.* The Board believes that the effective increase in our authorized but unissued shares of common stock that would result from a Reverse Stock Split is necessary in order to provide us with the flexibility to issue additional shares in the future on a timely basis in connection with potential financings, strategic relationships, business combinations and strategic transactions (including to expand our business or product lines through the acquisition of other businesses or products), among other purposes, without the potential delay and expense associated with convening a special meeting of the stockholders. We have funded our operations to date primarily from the issuance and sale of our securities, and we currently have a limited number of authorized and unreserved shares that are available for future issuance.

In particular, the report of our independent registered public accounting firm that accompanies our audited consolidated financial statements for the year ended December 31, 2023 contained an explanatory paragraph regarding substantial doubt about our ability to continue as a going concern. As discussed in our Annual Report, we disclosed that (i) we anticipate our available cash balance will not be sufficient for the next twelve months from the issuance of our Annual Report and (ii) we plan to raise additional capital to fulfill our operating and capital requirements through public or private equity or debt financings. Our estimate as to how long we expect our existing cash and cash equivalents to be available to fund our operations is based on assumptions that may prove inaccurate, and we could use our available capital resources sooner than we currently expect. In addition, changing circumstances may cause us to increase our spending significantly faster than we currently anticipate, and we may need to spend more money than currently expected because of circumstances beyond our control. If we are unable to raise sufficient additional capital in the very near term, our current cash, cash equivalents and restricted cash would be insufficient to sustain our operations and, among other things, stockholder value would be harmed. Accordingly, if our stockholders do not approve this proposal, we will be limited in our ability to raise additional capital, which would materially and adversely affect our financial condition and our ability to continue as a going concern may be materially and adversely affected. Even if this proposal is approved by our stockholders, there is no assurance that

## TABLE OF CONTENTS

we will be successful in raising additional financing. Based on our current business plans, we will continue to require additional capital in the very near term to fund our operating expenses and capital expenditure requirements, or we may need to further curtail or cease operations and seek protection by filing a voluntary petition for relief under the United States Bankruptcy Code.

Our success also depends in part on our continued ability to attract, retain and motivate highly qualified directors, management and key personnel. If this Proposal 2 is not approved by our stockholders, the lack of unissued and unreserved authorized shares of common stock to provide future equity incentive opportunities could adversely impact our ability to achieve these goals. In short, if our stockholders do not approve this Proposal 2, we may not be able to access the capital markets, complete corporate collaborations or partnerships, attract, retain and motivate directors and employees, and pursue other business opportunities integral to our growth and success. The effective increase in the number of authorized shares of common stock upon approval and implementation of a Reverse Stock Split will not, by itself, have an immediate dilutive effect on our current stockholders. However, if this Proposal 2 is approved, unless otherwise required by applicable law or stock exchange rules, the Board will be able to issue additional shares of common stock from time to time in its discretion without further action or authorization by the stockholders. The newly available authorized shares of common stock would be issuable for any proper corporate purpose, including capital raising transactions of equity or convertible debt securities, the establishment of collaborations or other strategic agreements, stock splits, stock dividends, issuance under current or future equity incentive plans, future acquisitions, investment opportunities, or for other corporate purposes. The future issuance of additional shares of common stock or securities convertible into our common stock may occur at times or under circumstances that could result in a dilutive effect on the earnings per share, book value per share, voting power and percentage interest of the present holders of our common stock, some of whom have preemptive rights to subscribe for additional shares that we may issue.

Other than future issuances under our equity compensation plans, our convertible debt, outstanding warrants from our recent financing transactions, possible issuances (subject to the future discretion of the appointed pricing committee of the Board) under our “at-the-market” sales agreement with Cowen and Company, LLC, and the possible issuance of securities exercisable for our common stock to banks, equipment lessors or other financial institutions, the Board currently has no specific plans, arrangements or understandings to issue the additional authorized shares of common stock that will effectively result from approval and implementation of a Reverse Stock Split. As of the date of this proxy statement, we have a sufficient number of authorized shares of common stock under our Amended and Restated Certificate of Incorporation, as amended, as presently in effect to issue shares of common stock upon the exercise of all outstanding convertible securities and any other outstanding equity-linked obligations as they come due.

### **Criteria to be Used for Determining Whether to Implement Reverse Stock Split**

In determining whether to implement a Reverse Stock Split and which Reverse Stock Split ratio to implement, if any, following receipt of stockholder approval of this Proposal 2, our Board may consider, among other things, various factors, such as:

- the historical trading price and trading volume of our common stock;
- the then-prevailing trading price and trading volume of our common stock and the expected impact of a Reverse Stock Split on the trading market for our common stock in the short- and long-term;
- the continued listing requirements for our common stock on The Nasdaq Capital Market;
- which Reverse Stock Split ratio would result in the least administrative cost to us;
- prevailing general market and economic conditions; and
- whether and when our Board desires to have the additional authorized but unissued shares of common stock that will effectively result from the implementation of a Reverse Stock Split when available to provide the flexibility to use our common stock for business and/or financial purposes.

### **Certain Risks and Potential Disadvantages Associated with a Reverse Stock Split**

*We cannot assure you that any proposed Reverse Stock Split will increase our stock price and have the desired effect of maintaining compliance with Nasdaq Marketplace Rules. We expect that a Reverse Stock Split will increase the market price of our common stock so that we may be able to maintain compliance with the Nasdaq \$1.00*

## TABLE OF CONTENTS

minimum bid price requirement. However, the effect of a Reverse Stock Split on the market price of our common stock cannot be predicted with any certainty, and the history of similar reverse stock splits for companies in like circumstances is varied, particularly since some investors may view a reverse stock split negatively. It is possible that the per share price of our common stock after a Reverse Stock Split will not rise in proportion to the reduction in the number of shares of our common stock outstanding resulting from a Reverse Stock Split, the market price per post-Reverse Stock Split share may not remain in excess of the \$1.00 minimum bid price for a sustained period of time, and a Reverse Stock Split may not result in a per share price that would attract brokers and investors who do not trade in lower priced stocks. In addition, although we believe that a Reverse Stock Split may enhance the desirability of our common stock to certain potential investors, we cannot assure you that, if implemented, our common stock will be more attractive to institutional and other long-term investors. Even if we implement a Reverse Stock Split, the market price of our common stock may decrease due to factors unrelated to such Reverse Stock Split. In any case, the market price of our common stock may also be based on other factors which may be unrelated to the number of shares outstanding, including our future performance. If a Reverse Stock Split is consummated and the trading price of the common stock declines, the percentage decline as an absolute number and as a percentage of our overall market capitalization may be greater than would occur in the absence of a Reverse Stock Split.

*Any proposed Reverse Stock Split may decrease the liquidity of our common stock and result in higher transaction costs.* The liquidity of our common stock may be negatively impacted by a Reverse Stock Split, given the reduced number of shares that would be outstanding after a Reverse Stock Split, particularly if the stock price does not increase as a result of a Reverse Stock Split. In addition, if a Reverse Stock Split is implemented, it will increase the number of our stockholders who own “odd lots” of fewer than 100 shares of common stock. Brokerage commission and other costs of transactions in odd lots are generally higher than the costs of transactions of more than 100 shares of common stock. Accordingly, a Reverse Stock Split may not achieve the desired results of increasing marketability and liquidity of our common stock described above. The effective increase in the authorized number of shares of our common stock as a result of a Reverse Stock Split could have anti-takeover implications. The implementation of a Reverse Stock Split will result in an effective increase in the authorized number of shares of our common stock, which could, under certain circumstances, have anti-takeover implications. The additional shares of common stock that would become available for issuance if this Proposal 2 is approved and a Reverse Stock Split is implemented could be used by us to oppose a hostile takeover attempt or to delay or prevent changes in control or our management. For example, without further stockholder approval, the Board could adopt a “poison pill” which would, under certain circumstances related to an acquisition of our securities that is not approved by the Board, give certain holders the right to acquire additional shares of our common stock at a low price. The Board also could strategically sell shares of common stock in a private transaction to purchasers who would oppose a takeover or favor the current Board. Although this Proposal 2 has been prompted by business and financial considerations and not by the threat of any hostile takeover attempt (nor is the Board currently aware of any such attempts directed at us), stockholders should be aware that approval of this Proposal 2 could facilitate future efforts by us to deter or prevent changes in control, including transactions in which the stockholders might otherwise receive a premium for their shares over then current market prices.

### **Principal Effects of a Reverse Stock Split**

After the effective date of any Reverse Stock Split that our Board elects to implement, each stockholder will own a reduced number of shares of common stock. However, any Reverse Stock Split will affect all of our stockholders uniformly and will not affect any of our stockholder’s percentage ownership interests, except to the extent that a Reverse Stock Split results in any of our stockholders owning a fractional share as described below. Voting rights and other rights and preferences of the holders of our common stock will not be affected by a Reverse Stock Split (other than as a result of the payment of cash in lieu of fractional shares). For example, a holder of 2% of the voting power of the outstanding shares of our common stock immediately prior to a Reverse Stock Split would continue to hold 2% (assuming there is no impact as a result of the payment of cash in lieu of issuing fractional shares) of the voting power of the outstanding shares of our common stock immediately after such Reverse Stock Split. The number of stockholders of record will not be affected by a Reverse Stock Split (except to the extent that any stockholder holds only a fractional share interest and receives cash for such interest after such Reverse Stock Split).

The principal effects of a Reverse Stock Split will be that:

- each 25 to 75 shares of our common stock owned by a stockholder (depending on the Reverse Stock Split ratio selected by the Board), will be combined into one new share of our common stock without increasing or decreasing the par value thereof;

## TABLE OF CONTENTS

- no fractional shares of common stock will be issued in connection with any Reverse Stock Split; instead, holders of common stock who would otherwise receive a fractional share of common stock pursuant to a Reverse Stock Split will receive cash in lieu of the fractional share as explained more fully below;
- based upon the Reverse Stock Split ratio selected by the Board, proportionate adjustments will be made to the per share exercise price and/or the number of shares issuable upon the exercise or vesting of all then outstanding stock options, restricted stock units and warrants, which will result in a proportional decrease in the number of shares of our common stock reserved for issuance upon exercise or vesting of such stock options, restricted stock units and warrants, and, in the case of stock options and warrants, a proportional increase in the exercise price of all such stock options and warrants; and
- the number of shares then reserved for issuance under our equity compensation plans will be reduced proportionately based upon the Reverse Stock Split ratio selected by the Board.

The following table contains approximate information, based on share information as of November 21, 2024, relating to our outstanding common stock based on the proposed Reverse Stock Split ratios (without giving effect to the treatment of fractional shares), and information regarding our authorized and available shares:

<u>Status</u>	<u>Number of Shares of Common Stock Authorized</u>	<u>Number of Shares of Common Stock Issued and Outstanding</u>	<u>Number of Shares of Common Stock Reserved for Future Issuance</u>	<u>Percentage of Authorized Common Stock</u>
Pre-Reverse Stock Split	400,000,000	101,993,225	100,429,588	50.61%
Post Reverse Stock Split 1:25	400,000,000	4,079,729	4,017,183	2.02%
Post Reverse Stock Split 1:35	400,000,000	2,419,092	2,869,416	1.32%
Post Reverse Stock Split 1:45	400,000,000	2,266,516	2,231,768	1.12%
Post Reverse Stock Split 1:55	400,000,000	1,854,422	1,825,992	0.92%
Post Reverse Stock Split 1:65	400,000,000	1,569,126	1,545,070	0.78%
Post Reverse Stock Split 1:75	400,000,000	1,359,909	1,339,061	0.67%

After the effective date of any Reverse Stock Split that our Board elects to implement, our common stock would have a new committee on uniform securities identification procedures (CUSIP) number to identify our common stock. Our common stock is currently registered under Section 12(b) of the Exchange Act, and we are subject to the periodic reporting and other requirements of the Exchange Act. The implementation of any proposed Reverse Stock Split will not affect the registration of our common stock under the Exchange Act.

Our common stock would continue to be listed on The Nasdaq Capital Market under the symbol “BNGO” immediately following a Reverse Stock Split, although it is likely that Nasdaq would add the letter “D” to the end of the trading symbol for a period of twenty trading days after the effective date of a Reverse Stock Split to indicate that a Reverse Stock Split had occurred.

### **Effective Date**

The proposed Reverse Stock Split would become effective at 5:00 p.m., Eastern Time, on the business day following the filing of a Certificate of Amendment with the office of the Secretary of State of the State of Delaware, or such later date as is chosen by the Board and set forth in the Certificate of Amendment, which date we refer to in this Proposal 2 as the “Effective Date.” Except as explained below with respect to fractional shares, effective as of 5:00 p.m., Eastern Time, on the Effective Date, shares of common stock issued and outstanding immediately prior thereto will be combined, automatically and without any action on the part of us or our stockholders, into a lesser number of new shares of our common stock in accordance with the Reverse Stock Split ratio determined by our Board within the limits set forth in this Proposal 2.

### **Cash Payment In Lieu of Fractional Shares**

No fractional shares of common stock will be issued as a result of any Reverse Stock Split. Instead, in lieu of any fractional shares to which a stockholder of record would otherwise be entitled as a result of a Reverse Stock Split, we will pay cash (without interest) equal to such fraction multiplied by the average of the closing sales prices of the common stock on The Nasdaq Capital Market during regular trading hours for the five consecutive trading days immediately preceding the Effective Date (with such average closing sales prices being adjusted to give effect to a

## TABLE OF CONTENTS

Reverse Stock Split). After such Reverse Stock Split, a stockholder otherwise entitled to a fractional interest will not have any voting, dividend or other rights with respect to such fractional interest except to receive payment as described above.

As of the Record Date, there were 63 stockholders of record of our common stock. Upon stockholder approval of this Proposal 2, if our Board elects to implement a Reverse Stock Split, stockholders owning, prior to such Reverse Stock Split, less than the number of whole shares of common stock that will be combined into one share of common stock in such Reverse Stock Split would no longer be stockholders. For example, if a stockholder held thirty shares of common stock immediately prior to a Reverse Stock Split and the Reverse Stock Split ratio selected by the Board was 1:50, then such stockholder would cease to be a stockholder of Bionano following such Reverse Stock Split and would not have any voting, dividend or other rights except to receive payment for the fractional share as described above. Based on our stockholders of record as of the Record Date, and assuming a Reverse Stock Split ratio of 1-for-50, we expect that cashing out fractional stockholders would reduce the number of stockholders of record by 38 holders to 25 holders. In addition, we do not intend for this transaction to be the first step in a series of plans or proposals of a “going private transaction” within the meaning of Rule 13e-3 of the Exchange Act.

### **Record and Beneficial Stockholders**

If this Proposal 2 is approved by our stockholders and our Board elects to implement a Reverse Stock Split, stockholders of record holding all of their shares of our common stock electronically in book-entry form under the direct registration system for securities will be automatically exchanged by the exchange agent and will receive a transaction statement at their address of record indicating the number of new post-split shares of our common stock they hold after a Reverse Stock Split along with payment in lieu of any fractional shares. Non-registered stockholders holding common stock through a broker should note that such brokers, banks, dealers or other agents may have different procedures for processing a Reverse Stock Split and making payment for fractional shares than those that would be put in place by us for registered stockholders. If you hold your shares with such a broker, bank, dealer or other agent and if you have questions in this regard, you are encouraged to contact your agent.

If this Proposal 2 is approved by our stockholders and our Board elects to implement a Reverse Stock Split, stockholders of record holding some or all of their shares in certificate form will receive a letter of transmittal from Bionano or its exchange agent, as soon as practicable after the effective date of such Reverse Stock Split. Our transfer agent is expected to act as “exchange agent” for the purpose of implementing the exchange of stock certificates. Holders of pre-Reverse Stock Split shares will be asked to surrender to the exchange agent certificates representing pre-Reverse Stock Split shares in exchange for post-Reverse Stock Split shares and payment in lieu of fractional shares (if any) in accordance with the procedures to be set forth in the letter of transmittal. No new post-Reverse Stock Split share certificates will be issued to a stockholder until such stockholder has surrendered such stockholder’s outstanding certificate(s) together with the properly completed and executed letter of transmittal to the exchange agent.

STOCKHOLDERS SHOULD NOT DESTROY ANY PRE-SPLIT STOCK CERTIFICATE AND SHOULD NOT SUBMIT ANY CERTIFICATES UNTIL THEY ARE REQUESTED TO DO SO.

### **Accounting Consequences**

The par value per share of our common stock would remain unchanged at \$0.0001 per share after any Reverse Stock Split. As a result, on the Effective Date, the stated capital on our balance sheet attributable to the common stock would be reduced proportionally, based on the actual Reverse Stock Split ratio, from its present amount, and the additional paid-in capital account would be credited with the amount by which the stated capital would be reduced. The net income or loss per share of common stock would be increased because there would be fewer shares of common stock outstanding. A Reverse Stock Split would be reflected retroactively in our consolidated financial statements. We do not anticipate that any other accounting consequences would arise as a result of any Reverse Stock Split.

### **No Dissenters’ or Appraisal Rights**

Our stockholders are not entitled to dissenters’ or appraisal rights under the General Corporation Law of the State of Delaware with respect to the proposed alternate amendments to our Amended and Restated Certificate of Incorporation, as amended, to allow for a Reverse Stock Split and we will not independently provide the stockholders with any such right if any Reverse Stock Split is implemented. Material U.S. Federal Income Tax Consequences The

## TABLE OF CONTENTS

following is a summary of the material U.S. federal income tax consequences of a Reverse Stock Split that are generally expected to be applicable to U.S. Holders (as defined below) who hold their common stock as capital assets within the meaning of Section 1221 of Internal Revenue Code of 1986, as amended (the “Code”) (generally property held for investment). This summary is based on provisions of the Code, applicable Treasury Regulations promulgated thereunder, judicial authority and current administrative rulings and practices as in effect on the date of this proxy statement. Changes to these laws could alter the tax consequences described below, possibly with retroactive effect, which may result in the U.S. federal income tax consequences of a Reverse Stock Split differing substantially from the consequences summarized below. We have not sought and will not seek an opinion of counsel or a ruling from the Internal Revenue Service regarding the federal income tax consequences of a Reverse Stock Split. This discussion is for general information only and does not purport to consider all aspects of U.S. federal income taxation that might be relevant to a U.S. Holder.

This discussion does not address the tax consequences which may apply to stockholders subject to special rules, such as financial institutions, insurance companies, tax-exempt organizations, dealers in securities, real estate investment trusts, regulated investment companies, stockholders who hold their pre-Reverse Stock Split shares through individual retirement or other tax-deferred accounts, stockholders who are not U.S. Holders, stockholders who have a functional currency other than the U.S. dollar, partnerships or other entities classified as partnerships or disregarded entities for U.S. federal income tax purposes (or persons holding our common stock through such entities), stockholders who hold the pre-Reverse Stock Split shares as part of a straddle, hedge, or conversion transaction, stockholders who hold the pre-Reverse Stock Split shares as qualified small business stock within the meaning of Section 1202 of the Code or Section 1244 stock for purposes of Section 1244 of the Code, stockholders who acquired their stock in a transaction subject to the gain rollover provisions of Section 1045 of the Code, or stockholders who acquired their pre-Reverse Stock Split shares pursuant to the exercise of employee stock options or otherwise as compensation.

In addition, this summary does not address: (a) the tax consequences of transactions effectuated before, after or at the same time as a Reverse Stock Split, whether or not they are in connection with a Reverse Stock Split; (b) any U.S. federal non-income tax consequences of a Reverse Stock Split, including estate, gift or other tax consequences; (c) any state, local or non-U.S. tax consequences of a Reverse Stock Split; (d) the alternative minimum tax, the Medicare contribution tax on net investment income, or special tax accounting rules under Section 451(b) of the Code, or (e) tax consequences to holders of options, warrants or similar rights to acquire our common stock. Stockholders are urged to consult their own tax advisors to determine the particular consequences to them.

For purposes of this discussion, a “U.S. Holder” means a beneficial owner of shares of our common stock that is any of the following:

- an individual who is a citizen or resident of the United States or treated as a U.S. citizen or resident for U.S. federal income tax purposes;
- a corporation (or other entity treated as a corporation for U.S. federal income tax purposes) created or organized in or under the laws of the United States, any state thereof, or the District of Columbia;
- an estate, the income of which is subject to U.S. federal income taxation regardless of its source; or
- a trust if (i) a U.S. court can exercise primary supervision over the trust’s administration and one or more “United States persons” (within the meaning of Section 7701(a)(30) of the Code) are authorized or have the authority to control all substantial decisions of the trust or (ii) it has a valid election in effect under applicable U.S. Treasury Regulations to be treated as a United States person for U.S. federal income tax purposes.

A Reverse Stock Split should constitute a “recapitalization” for U.S. federal income tax purposes. In general, the federal income tax consequences of a Reverse Stock Split will vary depending upon whether a U.S. Holder receives cash for fractional shares or solely a reduced number of shares of common stock in exchange for their old shares of common stock. A U.S. Holder who receives solely a reduced number of shares of common stock should generally not recognize gain or loss in a Reverse Stock Split. A U.S. Holder’s aggregate tax basis in the reduced number of shares of common stock should equal the U.S. Holder’s aggregate tax basis in its old shares of common stock and such U.S. Holder’s holding period in the reduced number of shares of common stock will include the holding period in its old shares of common stock exchanged. Treasury Regulations provide detailed rules for

[TABLE OF CONTENTS](#)

allocating the tax basis and holding period of the shares of common stock surrendered to the shares of common stock received in a recapitalization pursuant to a Reverse Stock Split. U.S. Holders should consult their tax advisors as to application of the foregoing rules where shares of common stock were acquired at different times or at different prices.

A U.S. Holder who receives cash in lieu of a fractional share as a result of a Reverse Stock Split should generally recognize gain or loss equal to the difference, if any, between the amount of cash received and the portion of the U.S. Holder's basis in the common stock surrendered that is allocated to the fractional share. Such gain or loss will be a capital gain or loss and will be long-term capital gain or loss if the U.S. Holder's holding period for such shares was more than one year at the time of a Reverse Stock Split. Long-term capital gains of non-corporate U.S. Holders are generally subject to preferential tax rates. There are limitations on the deductibility of capital losses under the Code. A U.S. Holder's aggregate tax basis in the reduced number of shares of common stock should equal the U.S. Holder's aggregate tax basis in its old shares of common stock decreased by the basis allocated to the fractional share for which such U.S. Holder is entitled to receive cash, and the holding period of the reduced number of shares received will include the holding period of the old shares exchanged.

Stockholders may be subject to information reporting with respect to any cash received in exchange for a fractional share interest in a new share in a Reverse Stock Split. Stockholders who are subject to information reporting and who do not provide a correct taxpayer identification number and other required information (such as by submitting a properly completed IRS Form W-9) may also be subject to backup withholding at the applicable rate. Any amount withheld under such rules is not an additional tax and may be refunded or credited against the stockholder's U.S. federal income tax liability, provided that the required information is properly furnished in a timely manner to the IRS.

**The preceding discussion is intended only as a summary of certain material U.S. federal income tax consequences of a Reverse Stock Split. It is not a complete analysis or discussion of all potential tax effects that may be important to a particular holder. All holders of our common stock should consult their own tax advisors as to the specific tax consequences of a Reverse Stock Split to them, including record retention and tax-reporting requirements, and the applicability and effect of any federal, state, local and non-U.S. tax laws.**

**Vote Required**

Approval of the Reverse Stock Split Proposal requires "For" votes from the holders of a majority of total votes cast on the proposal in accordance with Section 242(d) of the Delaware General Corporation Law. Abstentions will have no effect on the proposal because they are not considered "votes cast" We do not anticipate broker non-votes for this proposal because we have been advised by NYSE that this proposal should be considered "routine" under NYSE rules, and accordingly, we believe that 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 on such proposal because they are not considered "votes cast". 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.

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

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

The following table sets forth information regarding beneficial ownership of our capital stock as of November 21, 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 101,993,225 shares of our common stock outstanding on November 21, 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	Options Exercisable and RSUs Vesting within 60 Days of November 21, 2024	Warrants	Number of Shares Beneficially Owned <sup>(1)</sup>	%( <sup>2</sup> )
<b>Directors and Named Executive Officers</b>					
David L. Barker, Ph.D.	5,836	68,324	—	74,160	*
R. Erik Holmlin, Ph.D. <sup>(3)</sup>	55,466	356,832	—	412,298	*
Yvonne Linney, Ph.D.	—	74,308	—	74,308	*
Albert Luderer, Ph.D.	—	72,362	—	72,362	*
Hannah Mamuszka	6,578	76,308	—	82,886	*
Aleksandar Rajkovik, M.D., Ph.D.	—	77,898	—	77,898	*
Christopher J. Twomey <sup>(4)</sup>	6,450	71,458	5,450	83,358	*
Kristiina Vuori, M.D., Ph.D.	—	71,243	—	71,243	*
Vincent Wong, J.D.	—	71,147	—	71,147	*
Alka Chaubey, Ph.D., FACMG	13,398	149,496	—	162,894	*
Mark Oldakowski	29,851	151,093	—	180,944	*
<b>All current executive officers and directors as a group (13 persons)<sup>(5)</sup></b>	<b>134,630</b>	<b>1,297,920</b>	<b>5,450</b>	<b>1,438,000</b>	<b>1.60%</b>

\* Represents beneficial ownership of less than 1%.

- (1) Beneficial ownership is determined in accordance with SEC rules. In computing the beneficial ownership we have included shares for which the named person has sole or shared power over voting or investment decisions. The number of shares of common stock beneficially owned includes common stock which the named person has the right to acquire, through option exercise, RSU vesting, warrant exercise or otherwise, within 60 days after November 21, 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 November 21, 2024.
- (2) For each named person, the percentage ownership includes common stock that the person has the right to acquire within 60 days after November 21, 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.
- (3) The indicated ownership includes 502 shares held indirectly through the Robert Erik Holmlin IRA.
- (4) 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") and (ii) 4,500 warrants to purchase one share of the Company's common stock, expiring on April 6, 2025, held by the Trust.
- (5) Consists of (i) shares identified in the list of directors and executive officers above; (ii) 17,051 shares of common stock held by Jonathan Dixon and Mark Adamchak; and (iii) 57,451 shares of common stock issuable upon the exercise of stock options that are exercisable or will be exercisable within 60 days of November 21, 2024 by Jonathan Dixon and Mark Adamchak.



## 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 Special Meeting materials with respect to two or more stockholders sharing the same address by delivering a single Notice or other Special 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.

A number of brokers with account holders who are Bionano stockholders will be “householding” the Company’s proxy materials. A single Notice 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, 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 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.bionanogenomics.com](http://ir.bionanogenomics.com) and click on “SEC Filings” under the “Financial & Filings” heading. Copies of our Annual Report on Form 10-K for the year ended December 31, 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](mailto:ir@bionano.com).

**OTHER MATTERS**

The Board knows of no other matters that will be presented for consideration at the Special Meeting. If any other matters are properly brought before the Special 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

, 2024

Appendix A

**FORM OF CERTIFICATE OF AMENDMENT TO THE AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OF BIONANO GENOMICS, INC.**

**Bionano Genomics, Inc.** (the “*Company*”), a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware (the “*DGCL*”), hereby certifies that:

**ONE:** The name of the Company is Bionano Genomics, Inc. The Company’s Certificate of Incorporation was originally filed with the Secretary of State of the State of Delaware on August 16, 2007 under the name of BioNanomatrix, Inc.

**TWO:** The Board of Directors of the Company (the “*Board*”), acting in accordance with the provisions of Sections 141 and 242 of the DGCL, adopted resolutions amending the Company’s Amended and Restated Certificate of Incorporation, as amended (the “*Charter*”), to add the following paragraph at the end of Article IV, Section A, as follows:<sup>2</sup>

Effective as of the effective time of 5:00 p.m., Eastern Time, on [\*\*\*DATE\*\*\*]<sup>3</sup> (the “*Effective Time*”), each [•] shares of the Company’s Common Stock, par value \$0.0001 per share, issued and outstanding immediately prior to the Effective Time shall, automatically and without any action on the part of the Company or the respective holders thereof, be combined into one (1) share of Common Stock (the “*Reverse Split*”); *provided, however*, no fractional shares of Common Stock shall be issued as a result of the Reverse Split and, in lieu thereof, upon receipt after the Effective Time by the exchange agent selected by the Company of a properly completed and duly executed transmittal letter and, where shares are held in certificated form, the surrender of the stock certificate(s) formerly representing shares of pre-Reverse Split Common Stock, any stockholder who would otherwise be entitled to a fractional share of post-Reverse Split Common Stock as a result of the Reverse Split, following the Effective Time (after taking into account all fractional shares of post-Reverse Split Common Stock otherwise issuable to such stockholder), shall be entitled to receive a cash payment (without interest) equal to the fractional share of post-Reverse Split Common Stock to which such stockholder would otherwise be entitled multiplied by the average of the closing sales prices of a share of the Company’s Common Stock (as adjusted to give effect to the Reverse Split) on The Nasdaq Stock Market for each of the five (5) consecutive trading days immediately preceding the date this Certificate of Amendment is filed with the Secretary of State of the State of Delaware. Each stock certificate that, immediately prior to the Effective Time, represented shares of pre-Reverse Split Common Stock shall, from and after the Effective Time, automatically and without any action on the part of the Company or the respective holders thereof, represent that number of whole shares of post-Reverse Split Common Stock into which the shares of pre-Reverse Split Common Stock represented by such certificate shall have been combined (as well as the right to receive cash in lieu of any fractional shares of post-Reverse Split Common Stock as set forth above); *provided, however*, that each holder of record of a certificate that represented shares of pre-Reverse Split Common Stock shall receive, upon surrender of such certificate, a new certificate representing the number of whole shares of post-Reverse Split Common Stock into which the shares of pre-Reverse Split Common Stock represented by such certificate shall have been combined pursuant to the Reverse Split, as well as any cash in lieu of fractional shares of post-Reverse Split Common Stock to which such holder may be entitled as set forth above. The Reverse Split shall be effected on a record holder-by-record holder basis, such that any fractional shares of post-Reverse Split Common Stock resulting from the Reverse Split and held by a single record holder shall be aggregated.

**THREE:** Thereafter, pursuant to a resolution of the Board, this Certificate of Amendment was submitted to the stockholders of the Company for their approval, and was duly adopted and approved in accordance with the provisions of Section 242 of the DGCL.

[Signature Page Follows]

<sup>2</sup> These amendments approve the combination of any whole number of shares of the Company’s Common Stock between and including twenty five (25) and seventy five (75) into one (1) share of the Company’s Common Stock. By these amendments, the stockholders would approve each of the alternate amendments proposed by the Company’s Board of Directors. If the reverse stock split proposal is approved by the stockholders, the Certificate of Amendment filed with the Secretary of State of the State of Delaware will include only that reverse stock split ratio determined by the Company’s Board of Directors to be in the best interests of the Company and its stockholders. The other amendments will be abandoned pursuant to Section 242(c) of the General Corporation Law of the State of Delaware. The Company’s Board of Directors may also elect not to effect any reverse stock split, in which case all proposed alternate amendments will be abandoned.

<sup>3</sup> Insert next business day after filing with the Secretary of State of the State of Delaware.

TABLE OF CONTENTS

IN WITNESS WHEREOF, the Company has caused this Certificate of Amendment to be signed by its President and Chief Executive Officer this day of \_\_\_\_\_, \_\_\_\_\_.

**BIONANO GENOMICS, INC.**

By: \_\_\_\_\_

Name:

Title:

A-2

---

**PRELIMINARY - SUBJECT TO COMPLETION**



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



**SCAN TO**  
VIEW MATERIALS & VOTE

**VOTE BY INTERNET**

*Before The Meeting* - Go to [www.proxyvote.com](http://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 January 14, 2025. 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/BNGO2025SM](http://www.virtualshareholdermeeting.com/BNGO2025SM)

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 January 14, 2025. 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:

V59832-502518

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

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

BIONANO GENOMICS, INC.



**The Board of Directors recommends you vote FOR the following proposals:**

- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | For                      | Against                  | Abstain                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|
| 1. To approve, for purposes of complying with Nasdaq Listing Rule 5635(d), the issuance of up to an aggregate of 19,762,226 shares of common stock upon the exercise of certain Series C warrants and Series D warrants.                                                                                                                                                                                                                                                                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. To approve a series of alternate amendments to the Company's Amended and Restated Certificate of Incorporation, as amended, to effect, at the option of our Board of Directors, a reverse split of our common stock at a ratio between 1-for-25 and 1-for-75, inclusive, as determined by our Board of Directors in its sole discretion and with such reverse stock split to be effected at such time and date, if at all, as determined by our board of directors in its sole discretion. | <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.

Signature [PLEASE SIGN WITHIN BOX] Date

Signature (Joint Owners) Date

**PRELIMINARY - SUBJECT TO COMPLETION**

**Important Notice Regarding the Availability of Proxy Materials for the Special Meeting:**  
The Notice and Proxy Statement is available at [www.proxyvote.com](http://www.proxyvote.com).

V59833-S02518

**BIONANO GENOMICS, INC.  
Special Meeting of Stockholders  
January 15, 2025, 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. as the true and lawful attorneys of the undersigned, with full power of substitution and revocation, and authorizes him 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 Special Meeting of Stockholders to be held virtually, via live webcast at [www.virtualshareholdermeeting.com/BNGO2025SM](http://www.virtualshareholdermeeting.com/BNGO2025SM), on Wednesday, January 15, 2025, 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' recommendation.**

**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 January 14, 2025.**

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