

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM S-8
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

Bionano Genomics, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of incorporation or organization)

26-1756290
(I.R.S. Employer Identification No.)

9540 Towne Centre Drive, Suite 100
San Diego, California
(Address of Principal Executive Offices)

92121
(Zip Code)

Bionano Genomics, Inc. Amended and Restated 2018 Equity Incentive Plan, as amended
Bionano Genomics, Inc. 2018 Employee Stock Purchase Plan
Bionano Genomics, Inc. 2020 Inducement Plan, as amended
(Full titles of the plans)

R. Erik Holmlin, Ph.D.
President and Chief Executive Officer
Bionano Genomics, Inc.
9540 Towne Centre Drive, Suite 100
San Diego, California 92121
(858) 888-7600

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Thomas A. Coll, Esq.
Phillip S. McGill, Esq.
Cooley LLP
10265 Science Center Drive
San Diego, California 92121
(858) 550-6000

R. Erik Holmlin, Ph.D.
President and Chief Executive Officer
Bionano Genomics, Inc.
9540 Towne Centre Drive, Suite 100
San Diego, California 92121
(858) 888-7600

Indicate by check mark whether the Registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input checked="" type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>
Emerging growth company	<input type="checkbox"/>		

If an emerging growth company, indicate by check mark if the Registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

EXPLANATORY NOTE

This Registration Statement on Form S-8 is being filed by Bionano Genomics, Inc. (the “**Registrant**”) for the purpose of registering (i) an additional 14,850,682 shares of Registrant’s Common Stock, par value \$0.0001 per share (“**Common Stock**”), under the Registrant’s 2018 Equity Incentive Plan, as amended (the “**2018 Plan**”), pursuant to the provisions of the 2018 Plan providing for an automatic increase in the number of shares of Common Stock reserved and available for issuance under the 2018 Plan, (ii) 220,000 additional shares of Common Stock under the Registrant’s 2018 Employee Stock Purchase Plan (the “**2018 ESPP**”) pursuant to the provisions of the 2018 ESPP providing for an automatic increase in the number of shares of Common Stock reserved and available for issuance under the 2018 ESPP, and (iii) 1,000,000 additional shares of Common Stock under the Registrant’s 2020 Inducement Plan, as amended (the “**Inducement Plan**”), for an aggregate of 4,100,000 shares of Common Stock issuable under the Inducement Plan, pursuant to an amendment to the Inducement Plan approved by the Board of Directors of the Registrant on November 21, 2022.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

These additional shares of Common Stock are securities of the same class as other securities for which a Registration Statement of the Registrant on Form S-8 relating to the 2018 Plan, the 2018 ESPP, and the Inducement Plan are effective. The Registrant previously registered shares of its Common Stock for issuance under the 2018 Plan and 2018 ESPP under Registration Statements on Form S-8 filed with the Securities and Exchange Commission on [August 28, 2018](#) (File No. 333-227073), [March 29, 2019](#) (File No. 333-230589), [March 11, 2020](#) (File No. 333-237069), [August 14, 2020](#) (File No. 333-245764), [March 24, 2021](#) (File No. 333-254654), and [March 1, 2022](#) (File No. 333-263176). The Registrant previously registered shares of its Common Stock for issuance under the Inducement Plan under Registration Statements on Form S-8 filed with the Securities and Exchange Commission on [August 28, 2020](#) (File No. 333-248468) and [November 4, 2021](#) (File No. 333-260762). Pursuant to General Instruction E to Form S-8, this Registration Statement hereby incorporates by reference the contents of the Registration Statements referenced above.

Item 8. Exhibits.

Exhibit Number	Description
4.1 ⁽¹⁾	Amended and Restated Certificate of Incorporation of the Registrant, as amended.
4.2 ⁽²⁾	Amended and Restated Bylaws of the Registrant.
4.3 ⁽³⁾	Form of Common Stock Certificate of the Registrant.
4.4 ⁽⁴⁾	Registration Rights Agreement, dated March 14, 2019, by and among the Company and the Innovatus Investors.
5.1	Opinion of Cooley LLP.
23.1	Consent of BDO USA LLP, Independent Registered Public Accounting Firm.
23.2	Consent of Cooley LLP. Reference is made to Exhibit 5.1.
24.1	Power of Attorney. Reference is made to the signature page hereto.
99.1 ⁽⁵⁾	Bionano Genomics, Inc. 2018 Equity Incentive Plan, as amended (the “2018 Plan”).
99.1A ⁽⁶⁾	Forms of grant notice, stock option agreement and notice of exercise under the 2018 Plan.
99.1B ⁽⁶⁾	Forms of director grant notice, stock option agreement and notice of exercise under the 2018 Plan.
99.1C ⁽⁶⁾	Forms of double-trigger grant notice, stock option agreement and notice of exercise under the 2018 Plan.
99.1D ⁽³⁾	Forms of international grant notice, stock option agreement and notice of exercise under the 2018 Plan.
99.1E ⁽⁷⁾	Forms of restricted stock unit grant notice and restricted stock unit award agreement under the 2018 Plan.
99.2 ⁽⁸⁾	Bionano Genomics, Inc. 2018 Employee Stock Purchase Plan.
99.3 ⁽⁹⁾	Bionano Genomics, Inc. 2020 Inducement Plan, as amended.
99.3A ⁽¹⁰⁾	Form of Stock Option Grant Notice and Stock Option Agreement under the Bionano Genomics, Inc. 2020 Inducement Plan, as amended.
107	Filing Fee Table.

- (1) Incorporated by reference to the Registrant’s Annual Report on Form 10-K, filed with the SEC on March 23, 2021.
 - (2) Incorporated by reference to the Registrant’s Current Report on Form 8-K, filed with the SEC on August 24, 2018.
 - (3) Incorporated by reference to the Registrant’s Registration Statement on Form S-1 (File No. 333-225970), as amended.
 - (4) Incorporated by reference to the Registrant’s Current Report on Form 8-K, filed with the SEC on March 14, 2019.
 - (5) Incorporated by reference to the Registrant’s Registration Statement on Form S-8 (File No. 333-245764).
 - (6) Incorporated by reference to the Registrant’s Annual Report on Form 10-K, filed with the SEC on March 9, 2023.
 - (7) Incorporated by reference to the Registrant’s Quarterly Report on Form 10-Q, filed with the SEC on August 4, 2021.
 - (8) Incorporated by reference to the Registrant’s Registration Statement on Form S-8 (File No. 333-227073).
 - (9) Incorporated by reference to the Registrant’s Current Report on Form 8-K, filed with the SEC on November 28, 2022
 - (10) Incorporated by reference to the Registrant’s Current Report on Form 8-K, filed with the SEC on August 24, 2020.
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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of San Diego, State of California, on March 9, 2023.

BIONANO GENOMICS, INC.

By: /s/ R. Erik Holmlin, Ph.D.
R. Erik Holmlin, Ph.D.
President and Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints each of R. Erik Holmlin, Ph.D. and Christopher Stewart as his or her true and lawful attorney-in-fact and agent, with the full power of substitution, for him or her and in his or her name, place or stead, in any and all capacities, to sign any and all amendments to this Registration Statement (including post-effective amendments), and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ R. Erik Holmlin, Ph.D.</u> R. Erik Holmlin, Ph.D.	President, Chief Executive Officer and Director (Principal Executive Officer)	March 9, 2023
<u>/s/ Christopher Stewart</u> Christopher Stewart	Chief Financial Officer (Principal Financial and Accounting Officer)	March 9, 2023
<u>/s/ David L. Barker, Ph.D.</u> David L. Barker, Ph.D.	Director	March 9, 2023
<u>/s/ Yvonne Linney, Ph.D.</u> Yvonne Linney, Ph.D.	Director	March 9, 2023
<u>/s/ Albert A. Luderer, Ph.D.</u> Albert A. Luderer, Ph.D.	Director	March 9, 2023
<u>/s/ Hannah Mamuszka</u> Hannah Mamuszka	Director	March 9, 2023
<u>/s/ Aleksandar Rajkovic, M.D., Ph.D.</u> Aleksandar Rajkovic, M.D., Ph.D.	Director	March 9, 2023
<u>/s/ Christopher Twomey</u> Christopher Twomey	Director	March 9, 2023
<u>/s/ Kristiina Vuori, M.D., Ph.D.</u> Kristiina Vuori, M.D., Ph.D.	Director	March 9, 2023
<u>/s/ Vincent Wong, J.D., M.B.A.</u> Vincent Wong, J.D., M.B.A.	Director	March 9, 2023



Thomas A. Coll
+1 858 550 6013
collta@cooley.com
March 9, 2023

Bionano Genomics, Inc.
9540 Towne Centre Drive, Suite 100
San Diego, CA 92121

Ladies and Gentlemen:

You have requested our opinion, as counsel to Bionano Genomics, Inc., a Delaware corporation (the “**Company**”), in connection with the filing by the Company of a Registration Statement on Form S-8 (the “**Registration Statement**”) with the Securities and Exchange Commission (the “**Commission**”) covering the offering of up to 16,070,682 shares (the “**Shares**”) of the Company’s Common Stock, par value \$0.0001 per share (“**Common Stock**”), consisting of (i) 14,850,682 shares of Common Stock issuable pursuant to the Company’s 2018 Equity Incentive Plan, as amended (the “**Incentive Plan**”), (ii) 220,000 shares of Common Stock issuable pursuant to the Company’s 2018 Employee Stock Purchase Plan (the “**ESPP**”) and (iii) 1,000,000 shares of Common Stock issuable pursuant to the Company’s 2020 Inducement Plan, as amended (together with the Incentive Plan and the ESPP, the “**Plans**”).

In connection with this opinion, we have examined and relied upon the Registration Statement and related prospectuses, the Plans, the Company’s certificate of incorporation and bylaws, each as currently in effect, and originals or copies certified to our satisfaction of such records, documents, certificates, memoranda and other instruments as in our judgment are necessary or appropriate to enable us to render the opinion expressed below. We have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as originals, the conformity to originals of all documents submitted to us as copies, the accuracy, completeness and authenticity of certificates of public officials; and the due authorization, execution and delivery of all documents by all persons other than by the Company where authorization, execution and delivery are prerequisites to the effectiveness of such documents. As to certain factual matters, we have relied upon a certificate of an officer of the Company and have not independently verified such matters.

Our opinion is expressed only with respect to the General Corporation Law of the State of Delaware. We express no opinion to the extent that any other laws are applicable to the subject matter hereof and express no opinion and provide no assurance as to compliance with any federal or state securities law, rule or regulation.

On the basis of the foregoing, and in reliance thereon, we are of the opinion that the Shares, when sold and issued in accordance with the Plans, the Registration Statement and related prospectus, will be validly issued, fully paid and nonassessable (except as to shares issued pursuant to certain deferred payment arrangements, which will be fully paid and nonassessable when such deferred payments are made in full).



March 9, 2023

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We consent to the filing of this opinion as an exhibit to the Registration Statement. In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act of 1933, as amended, or the rules and regulations of the Commission thereunder.

Sincerely,

Cooley LLP

By: /s/ Thomas A. Coll

Thomas A. Coll

Cooley LLP 10265 Science Center Drive San Diego, CA 92121
t: (858) 550-6000 f: (858) 550-6420 cooley.com

Consent of Independent Registered Public Accounting Firm

Bionano Genomics, Inc.
San Diego, California

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated March 9, 2023, relating to the consolidated financial statements of Bionano Genomics, Inc. (the “Company”) appearing in the Company’s Annual Report on Form 10-K for the year ended December 31, 2022. Our report contains an explanatory paragraph regarding the Company’s ability to continue as a going concern.

/s/ BDO USA, LLP

San Diego, CA
March 9, 2023

Calculation of Filing Fee Table

Form S-8 (Form Type)

Bionano Genomics, Inc.
(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered Securities

Security Type	Security Class Title	Fee Calculation Rule	Amount Registered ⁽¹⁾	Proposed Maximum Offering Price Per Unit ⁽²⁾	Maximum Aggregate Offering Price ⁽²⁾	Fee Rate	Amount of Registration Fee
Equity	2018 Equity Incentive Plan, as amended Common Stock, \$0.0001 par value per share	Other ⁽²⁾	14,850,682 ⁽³⁾	\$1.37	\$20,345,434.34	.0001102	\$2,243
Equity	2018 Employee Stock Purchase Plan Common Stock, \$0.0001 par value per share	Other ⁽²⁾	220,000 ⁽⁴⁾	\$1.37	\$301,400	.0001102	\$34
Equity	2020 Inducement Plan, as amended Common Stock, \$0.0001 par value per share	Other ⁽²⁾	1,000,000 ⁽⁵⁾	\$1.37	\$1,370,000.00	.0001102	\$151
Total Offering Amounts					\$22,016,834.34		—
Total Fees Previously Paid							—
Total Fee Offsets							—
Net Fee Due							\$2,428

- (1) Pursuant to Rule 416(a) under the Securities Act of 1933, as amended (the “**Securities Act**”), this Registration Statement shall also cover any additional shares of common stock, par value \$0.0001 per share (“**Common Stock**”), of Bionano Genomics, Inc. (the “**Registrant**”) that become issuable under the Registrant’s 2018 Equity Incentive Plan, as amended (the “**2018 Plan**”), the Registrant’s 2018 Employee Stock Purchase Plan (the “**2018 ESPP**”), and the Registrant’s 2020 Inducement Plan, as amended (the “**Inducement Plan**”) by reason of any stock dividend, stock split, recapitalization or other similar transaction.
- (2) Estimated solely for the purpose of calculating the amount of the registration fee pursuant to Rule 457(h) and 457(c) of the Securities Act. The proposed maximum aggregate offering price per share and proposed maximum aggregate offering price are calculated using the average of the high and low prices of the Common Stock as reported on the Nasdaq Capital Market on March 3, 2023.
- (3) Represents shares of Common Stock that were automatically added to the shares authorized for issuance under the 2018 Plan on January 1, 2023 pursuant to an “evergreen” provision contained in the 2018 Plan. Pursuant to such provision, on January 1st of each year through (and including) January 1, 2028, the number of shares authorized for issuance under the 2018 Plan will be automatically increased by the lesser of: (a) 5% of the total number of shares of capital stock of the Registrant outstanding on December 31 of the preceding calendar year; or (b) such lesser number of shares of Common Stock as the Registrant’s board of directors (the “**Board**”) may designate prior to the applicable January 1st.
- (4) Represents shares of Common Stock that were automatically added to the shares authorized for issuance under the 2018 ESPP on January 1, 2023 pursuant to an “evergreen” provision contained in the 2018 ESPP. Pursuant to such provision, on January 1st of each year through (and including) January 1, 2028, the number of shares authorized for issuance under the 2018 ESPP will be automatically increased by a number equal to the lesser of: (a) 1% of the total number of shares of capital stock outstanding on December 31 of the preceding calendar year; (b) 220,000 shares; or (c) such lesser number of shares of Common Stock as the Board may designate prior to the applicable January 1st.
- (5) Represents an increase in the number of shares of Common Stock reserved for issuance under the Inducement Plan pursuant to an amendment to the Inducement Plan approved by the Board of Directors of the Registrant on November 21, 2022.