

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

**FORM S-1  
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)

**3826**  
(Primary Standard Industrial  
Classification Code Number)

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

**9640 Towne Centre Drive, Suite 100  
San Diego, CA 92121  
(858) 888-7600**

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

**R. Erik Holmlin, Ph.D.  
President and Chief Executive Officer  
Bionano Genomics, Inc.  
9640 Towne Centre Drive, Suite 100  
San Diego, CA 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.  
Kenneth J. Rollins, Esq.  
James C. Pennington, Esq.  
Cooley LLP  
4401 Eastgate Mall  
San Diego, California 92121  
(858) 550-6000**

**R. Erik Holmlin, Ph.D.  
President and Chief Executive Officer  
Bionano Genomics, Inc.  
9640 Towne Centre Drive, Suite 100  
San Diego, California 92121  
(858) 888-7600**

**Mitchell Nussbaum, Esq.  
Angela Dowd, Esq.  
Loeb & Loeb LLP  
345 Park Ave.  
New York, NY 10154  
(212) 407-4000**

**Approximate date of commencement of proposed sale to the public:** As soon as practicable after this Registration Statement becomes effective.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.  (333-225970)

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

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. (Check one):

Large accelerated filer

Accelerated filer

Non-accelerated filer  (Do not check if a smaller reporting company)

Smaller reporting company

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.

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**CALCULATION OF REGISTRATION FEE**

Title of Each Class of Securities to be Registered	Proposed Maximum Aggregate Offering Price (1)(7)	Amount of Registration Fee(1)
Units, each consisting of one share of common stock, \$0.0001 par value per share, and one warrant to purchase one share of common stock(2)(3)	\$3,944,500	\$492
Common stock included in the units(3)(4)(5)	—	—
Warrants to purchase common stock included in the units(3)(5)	—	—
Common stock, \$0.0001 par value per share, underlying the warrants included in the units(3)(4)(6)	\$3,944,500	\$492
<b>Total</b>	<b>\$7,889,000</b>	<b>\$984</b>

- (1) Estimated solely for the purpose of calculating the amount of the registration fee in accordance with Rule 457(o) under the Securities Act of 1933, as amended, or the Securities Act.
- (2) Includes the offering price of units that the underwriters have the option to purchase to cover over-allotments, if any.
- (3) Each unit will consist of one share of common stock and one warrant to purchase one share of common stock.
- (4) Pursuant to Rule 416 of the Securities Act, the securities being registered hereunder include such additional securities as may be issued after the date hereof as a result of share splits, share dividends or similar transactions.
- (5) No fee required pursuant to Rule 457(g) under the Securities Act.
- (6) We have calculated the proposed maximum aggregate offering price of the common stock underlying the warrants to purchase common stock by assuming that such warrants are exercisable to purchase common stock at a price per share equal to \$6.125.
- (7) The securities being registered pursuant to this Registration Statement are in addition to the \$19,722,500 of units and \$19,722,500 of common stock underlying the warrants included in the units registered pursuant to the Registrant's Registration Statement on Form S-1 (Registration No. 333-225970).

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**The Registration Statement shall become effective upon filing in accordance with Rule 462(b) promulgated under the Securities Act of 1933, as amended.**

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**EXPLANATORY NOTE AND  
INCORPORATION OF CERTAIN INFORMATION BY REFERENCE**

This Registration Statement (the “Registration Statement”) is being filed with the Securities and Exchange Commission (the “Commission”) with respect to the registration of additional units (the “Units”) of Bionano Genomics, Inc. (the “Registrant”), each Unit consisting of one share of common stock, par value \$0.0001 per share (the “Common Stock”), of the Registrant and one warrant to purchase one share of Common Stock, pursuant to Rule 462(b) under the Securities Act of 1933, as amended (the “Securities Act”). This Registration Statement incorporates by reference the contents of, including all amendments and exhibits thereto, the Registration Statement on Form S-1, as amended (File No. 333-225970) (the “Prior Registration Statement”), which the Commission declared effective on August 20, 2018, and is being filed solely for the purpose of increasing the aggregate offering price of Units to be offered in the public offering by \$3,944,500 and increasing the aggregate offering price of the Common Stock underlying the warrants included in the Units by \$3,944,500, including the offering price of Units that may be sold pursuant to the underwriter’s option to purchase additional shares. The additional Units and the Common Stock underlying the warrants included in the Units that are being registered for sale are in an amount and at a price that together represent no more than 20% of the maximum aggregate offering price set forth in the Calculation of Registration Fee table contained in the Prior Registration Statement.

The required opinion and consents are listed on the Exhibit Index attached hereto and filed herewith.

## EXHIBIT INDEX

<u>Exhibit Number</u>	<u>Description</u>
5.1	<a href="#"><u>Opinion of Cooley LLP (incorporated by reference to Exhibit 5.1 to the Registration Statement on Form S-1 (File No. 333-225970), as amended).</u></a>
23.1	<a href="#"><u>Consent of Deloitte &amp; Touche LLP, an Independent Registered Public Accounting Firm.</u></a>
23.2	<a href="#"><u>Consent of Cooley LLP. Reference is made to Exhibit 5.1.</u></a>
24.1	<a href="#"><u>Power of Attorney (included on the signature page of the Registration Statement on Form S-1 (File No. 333-225970), filed with the Commission on June 28, 2018 and incorporated herein by reference).</u></a>
24.2	<a href="#"><u>Power of Attorney (included on the signature page of the Registration Statement on Form S-1 (File No. 333-225970), filed with the Commission on July 13, 2018 and incorporated herein by reference).</u></a>

## SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized in the City of South San Francisco, State of California, on the 21st day of August, 2018.

### BIONANO GENOMICS, INC.

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

R. Erik Holmlin, Ph.D.

*President and Chief Executive Officer*

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.	Chief Executive Officer and Director <i>(Principal Executive Officer)</i>	August 21, 2018
<u>/s/ Mike Ward</u> Mike Ward	Chief Financial Officer <i>(Principal Financial and Accounting Officer)</i>	August 21, 2018
<u>/s/ David L. Barker, Ph.D.*</u> David L. Barker, Ph.D.	Director	August 21, 2018
<u>/s/ Darren Cai, Ph.D.*</u> Darren Cai, Ph.D.	Director	August 21, 2018
<u>/s/ Albert A. Luderer, Ph.D.*</u> Albert A. Luderer, Ph.D.	Director	August 21, 2018
<u>/s/ Junfeng Wang*</u> Junfeng Wang	Director	August 21, 2018
<u>/s/ Christopher Twomey*</u> Christopher Twomey	Director	August 21, 2018
<u>/s/ Quan Zhou*</u> Quan Zhou	Director	August 21, 2018

\* Pursuant to Power of Attorney

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

R. Erik Holmlin, Ph.D.

*Attorney-in-Fact*

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We consent to the incorporation by reference in this Registration Statement (Form S-1) of Bionano Genomics, Inc. of our report dated May 11, 2018 (July 16, 2018 as to the effects of the reverse stock split and August 15, 2018 as to the effects of the second reverse stock split, both described in Note 12), relating to the consolidated financial statements of Bionano Genomics, Inc. included in its Registration Statement (Form S-1 No. 333-225970), as amended.

*/s/ DELOITTE & TOUCHE LLP*

San Diego, California  
August 21, 2018