
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 13G

UNDER THE SECURITIES EXCHANGE ACT OF 1934

Bionano Genomics, Inc.

(Name of Issuer)

Common Stock, \$0.0001 par value per share

(Title of Class of Securities)

09075F404

(CUSIP Number)

09/30/2025

(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- Rule 13d-1(b)
 Rule 13d-1(c)
 Rule 13d-1(d)
-
-

SCHEDULE 13G

CUSIP No. 09075F404

Names of Reporting Persons

1

Ayrton Capital LLC

Check the appropriate box if a member of a Group (see instructions)

2

(a)

(b)

3

Sec Use Only

Citizenship or Place of Organization

4

DELAWARE

Number of Shares 5 Sole Voting Power

Beneficially Owned by Each Reporting Person With: 528,245.00
Shared Voting Power
6
0.00
Sole Dispositive Power
7
528,245.00
Shared Dispositive Power
8
0.00

9 Aggregate Amount Beneficially Owned by Each Reporting Person

528,245.00

10 Check box if the aggregate amount in row (9) excludes certain shares (See Instructions)

Percent of class represented by amount in row (9)

11 9.99 %

12 Type of Reporting Person (See Instructions)

IA

SCHEDULE 13G

CUSIP No. 09075F404

1 Names of Reporting Persons

Alto Opportunity Master Fund, SPC - Segregated Master Portfolio B

Check the appropriate box if a member of a Group (see instructions)

2 (a)

(b)

3 Sec Use Only

4 Citizenship or Place of Organization

CAYMAN ISLANDS

Sole Voting Power

5

528,245.00

Shared Voting Power

6

0.00

Sole Dispositive Power

7

528,245.00

Shared Dispositive Power

8

0.00

9 Aggregate Amount Beneficially Owned by Each Reporting Person

528,245.00

10 Check box if the aggregate amount in row (9) excludes certain shares (See Instructions)

11 Percent of class represented by amount in row (9)

9.99 %
Type of Reporting Person (See Instructions)

12

CO

SCHEDULE 13G

CUSIP No. 09075F404

Names of Reporting Persons

1

Waqas Khatri

Check the appropriate box if a member of a Group (see instructions)

2

(a)

(b)

3

Sec Use Only

Citizenship or Place of Organization

4

UNITED STATES

Sole Voting Power

5

528,245.00

Number of
Shares

Shared Voting Power

Beneficially

6

0.00

Owned by
Each

Sole Dispositive Power

Reporting
Person

7

528,245.00

With:

Shared Dispositive

8

Power

0.00

Aggregate Amount Beneficially Owned by Each Reporting Person

9

528,245.00

Check box if the aggregate amount in row (9) excludes certain shares (See Instructions)

10

Percent of class represented by amount in row (9)

11

9.99 %

Type of Reporting Person (See Instructions)

12

IN

SCHEDULE 13G

Item 1.

Name of issuer:

(a)

Bionano Genomics, Inc.

Address of issuer's principal executive offices:

(b)

9540 Towne Centre Drive, Suite 100 San Diego CA 92121

Item 2.

(a)

Name of person filing:

(i) Ayrton Capital LLC; (ii) Alto Opportunity Master Fund, SPC - Segregated Master Portfolio B; and (iii) Waqas Khatri

Address or principal business office or, if none, residence:

- (b) (i) Ayrton Capital LLC, 55 Post Rd West, 2nd Floor Westport, CT 06880; (ii) Alto Opportunity Master Fund, SPC - Segregated Master Portfolio B, Suite #7 Grand Pavilion Commercial Centre, 802 West Bay Road, Grand Cayman, P.O. Box 10250, Cayman Islands; and (iii) Waqas Khatri 55 Post Rd West, 2nd Floor Westport, CT 06880

Citizenship:

- (c) (i) Ayrton Capital LLC: United States; (ii) Alto Opportunity Master Fund, SPC - Segregated Master Portfolio B: Cayman Islands; and (iii) Waqas Khatri: United States

Title of class of securities:

- (d) Common Stock, \$0.0001 par value per share

CUSIP No.:

- (e) 09075F404

Item 3. If this statement is filed pursuant to §§ 240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a:

- (a) Broker or dealer registered under section 15 of the Act (15 U.S.C. 78o);
- (b) Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c);
- (c) Insurance company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c);
- (d) Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8);
- (e) An investment adviser in accordance with § 240.13d-1(b)(1)(ii)(E);
- (f) An employee benefit plan or endowment fund in accordance with § 240.13d-1(b)(1)(ii)(F);
- (g) A parent holding company or control person in accordance with § 240.13d-1(b)(1)(ii)(G);
- (h) A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);
- (i) A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3);
- A non-U.S. institution in accordance with § 240.13d-1(b)(1)(ii)(J). If filing as a non-U.S. institution in accordance with § 240.13d-1(b)(1)(ii)(J), please specify the type of institution:
- (j) Group, in accordance with Rule 240.13d-1(b)(1)(ii)(K).

Item 4. Ownership

Amount beneficially owned:

Ayrton Capital LLC: 528,245; (ii) Alto Opportunity Master Fund, SPC - Segregated Master Portfolio B: 528,245; and (iii) Waqas Khatri: 528,245. Represents 528,245 shares of Common Stock issuable on the exercise of certain warrants (the "Warrants") and conversion of a convertible note (the "Note") held by the Reporting Persons. The issuable shares of Common Stock related to the exercise of the Warrants and conversion of the Note are subject to a 9.99% beneficial ownership blocker. The shares reported herein represent Common Stock of Bionano Genomics, Inc. (the "Issuer") held by Alto Opportunity Master Fund, SPC- Segregated Master Portfolio B, a Cayman Islands exempted company (the "Fund"). The Fund is a private investment vehicle for which Ayrton Capital LLC, a Delaware limited liability company (the "Investment Manager"), serves as the investment manager. Waqas Khatri serves as the managing member of the Investment Manager (all of the foregoing, collectively, the "Reporting Persons").

Percent of class:

- (b) The percentages below are based on (i) 4,755,265 shares of Common Stock of the Issuer that were outstanding as of September 9, 2025; and (ii) 528,245 shares of Common Stock issuable on the exercise of the Warrants and conversion of the Notes held by the Reporting Persons. The amount of shares outstanding was based upon a statement in the Issuer's 424B4 Prospectus filed on September 16, 2025. For the sake of clarity, the holdings of the Reporting Persons reported herein are as of September 30, 2025. (i) Ayrton Capital LLC: 9.99%; (ii) Alto Opportunity Master Fund, SPC - Segregated Master Portfolio B: 9.99%; and (iii) Waqas Khatri: 9.99%. %

- (c) Number of shares as to which the person has:

(i) Sole power to vote or to direct the vote:

(i) Ayrton Capital LLC: 528,245; (ii) Alto Opportunity Master Fund, SPC - Segregated Master Portfolio B: 528,245; and (iii) Waqas Khatri: 528,245

(ii) Shared power to vote or to direct the vote:

(i) Ayrton Capital LLC: 0; (ii) Alto Opportunity Master Fund, SPC - Segregated Master Portfolio B: 0; and (iii) Waqas Khatri: 0

(iii) Sole power to dispose or to direct the disposition of:

(i) Ayrton Capital LLC: 528,245; Alto Opportunity Master Fund, SPC - Segregated Master Portfolio B: 528,245; Waqas Khatri: 528,245

(iv) Shared power to dispose or to direct the disposition of:

(i) Ayrton Capital LLC: 0; (ii) Alto Opportunity Master Fund, SPC - Segregated Master Portfolio B: 0; (iii) Waqas Khatri: 0

Item 5. Ownership of 5 Percent or Less of a Class.

Item 6. Ownership of more than 5 Percent on Behalf of Another Person.

Not Applicable

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on by the Parent Holding Company or Control Person.

Not Applicable

Item 8. Identification and Classification of Members of the Group.

Not Applicable

Item 9. Notice of Dissolution of Group.

Not Applicable

Item 10. Certifications:

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were acquired and are held in the ordinary course of business and were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect, other than activities solely in connection with a nomination under ?? 240.14a-11.

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Ayrton Capital LLC

Signature: /s/ Waqas Khatri

Name/Title: Waqas Khatri / Managing Member

Date: 11/13/2025

Alto Opportunity Master Fund, SPC - Segregated Master Portfolio B

Signature: /s/ Waqas Khatri

Name/Title: Waqas Khatri / Director

Date: 11/13/2025

Waqas Khatri

Signature: /s/ Waqas Khatri

Name/Title: Waqas Khatri

Date: 11/13/2025