

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)

(CUSIP Number)

09/30/2026

(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.

	Names of Reporting Persons
1	Orin Hirschman
	Check the appropriate box if a member of a Group (see instructions)
2	<div>☐ (a)</div> <div>☒ (b)</div>
3	Sec Use Only
	Citizenship or Place of Organization
4	UNITED STATES
Number of	Sole Voting Power
Shares	5
Beneficially	1,165,000.00

Owned by Each Reporting Person With:	6	Shared Voting Power
		0.00
		Sole Dispositive Power
	7	1,165,000.00
		Shared Dispositive Power
	8	0.00
9	Aggregate Amount Beneficially Owned by Each Reporting Person	
		1,165,000.00
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)	
		9.9 %
12	Type of Reporting Person (See Instructions)	
		HC, IN

SCHEDULE 13G

CUSIP No.

1	Names of Reporting Persons	
	AIGH Capital Management LLC	
	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	
	DELAWARE	
		Sole Voting Power
	5	1,165,000.00
Number of Shares Beneficially Owned by Each Reporting Person With:	6	Shared Voting Power
		0.00
		Sole Dispositive Power
	7	1,165,000.00
		Shared Dispositive Power
	8	0.00
9	Aggregate Amount Beneficially Owned by Each Reporting Person	
		1,165,000.00
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)	
		9.9 %

IA, OO

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.

Name of person filing:

This Schedule 13G is being jointly filed by each of the following persons pursuant to Rule 13d-1 promulgated by the Securities and Exchange Commission pursuant to Section 13 of the Securities Exchange Act of 1934, as amended (the "Act"): (i) AIGH Capital Management, LLC, a Maryland limited liability company ("AIGH CM"), as an Advisor or Sub-Advisor with respect to shares of Common Stock (as defined in Item 2(d) below) held by AIGH Investment Partners, L.P., and WVP Emerging Manger Onshore Fund, LLC - AIGH Series. (ii) AIGH Investment Partners, L.L.C., a Delaware limited liability company ("AIGH LLC");, with respect to shares of Common Stock (as defined in Item 2(d) below) directly held by it; (iii) Mr. Orin Hirschman ("Mr. Hirschman"), who is the Managing Member of AIGH Capital Management, LLC and president of AIGH LLC, with respect to shares of Common Stock (as defined in Item 2(d) below) indirectly held through AIGH CM, directly by AIGH LLC and Mr. Hirschman and his family directly. AIGH Capital Management LLC., AIGH Investment Partners LLC, and Mr. Hirschman are hereinafter sometimes collectively referred to as the "Reporting Persons." Any disclosures herein with respect to persons other than the Reporting Persons are made on information and belief after making inquiry to the appropriate party.

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

(b)

The principal office and business address of AIGH Capital Management LLC, AIGH Investment Partners LLC, and Mr.Hirschman is: 6006 Berkeley Avenue, Baltimore MD 21209

Citizenship:

(c)

See Item 2(a) above and Item 4 of each cover page.

Title of class of securities:

(d)

Common Stock, \$0.0001 par value per share

(e)

CUSIP No.:

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);

(j)

☐ 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:

(k)

☐ Group, in accordance with Rule 240.13d-1(b)(1)(ii)(K).

Item 4. Ownership

(a)

Amount beneficially owned:

1,165,000 Excludes 2,374,000 shares issuable upon exercise of warrants not currently exercisable due to beneficial ownership limitations on exercise

Percent of class:

(b)

9.9 %

(c)

Number of shares as to which the person has:

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

1,165,000

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

0

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

1,165,000 Excludes 2,374,000 shares issuable upon exercise of warrants not currently exercisable due to beneficial ownership limitations on exercise

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

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.

Orin Hirschman

Signature: /s/ Orin Hirschman

Name/Title: Orin Hirschman

Date: 10/19/2026

AIGH Capital Management LLC

Signature: /s/ Orin Hirschman

Name/Title: Orin Hirschman, Managing Member

Date: 10/19/2026