

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, par value \$0.0001 per share

(Title of Class of Securities)

09075F107

(CUSIP Number)

August 21, 2018

(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)

The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

1.	Names of Reporting Persons. AIGH Capital Management, LLC. I.R.S. Identification Nos. of above persons (entities only).  <b>27-4413262</b>	
2.	Check the Appropriate Box if a Member of a Group (See Instructions)  (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3.	SEC Use Only	
4.	Citizenship of Place of Organization  <b>Maryland</b>	
Number of Shares Beneficially Owned by Each Reporting Person With	5.	Sole Voting Power  <b>576,423<sup>1</sup></b>
	6.	Shared Voting Power  0
	7.	Sole Dispositive Power  <b>576,423<sup>1</sup></b>
	8.	Shared Dispositive Power
9.	Aggregate Amount Beneficially Owned by each Reporting Person  576,423 <sup>1</sup>	
10.	Check if the Aggregate Amount in Row (9) Excludes Certain Shares <input type="checkbox"/>	
11.	Percent of Class Represented by Amount in Row 9  6.1% <sup>2</sup>	
12.	Type of Reporting Person (See Instructions)  <b>OO</b>	

1. Excludes 594,493 warrants to purchase Common Stock not exercisable at this time due to Beneficial Ownership limitations.

2. Based on 9,491,432 shares of Common Stock represented in the final IPO registration prospectus.

1.	Names of Reporting Persons. AIGH Investment Partners, L.L.C. I.R.S. Identification Nos. of above persons (entities only).	
2.	Check the Appropriate Box if a Member of a Group (See Instructions)  (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3.	SEC Use Only	
4.	Citizenship of Place of Organization  <b>Delaware</b>	
Number of Shares Beneficially Owned by Each Reporting Person With	5.	Sole Voting Power  0
	6.	Shared Voting Power  0
	7.	Sole Dispositive Power  0
	8.	Shared Dispositive Power
9.	Aggregate Amount Beneficially Owned by each Reporting Person  0	
10.	Check if the Aggregate Amount in Row (9) Excludes Certain Shares <input type="checkbox"/>	
11.	Percent of Class Represented by Amount in Row 9  0.0%	
12.	Type of Reporting Person (See Instructions)  <b>OO</b>	

1.	Names of Reporting Persons. Orin Hirschman I.R.S. Identification Nos. of above persons (entities only).	
2.	Check the Appropriate Box if a Member of a Group (See Instructions)  (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3.	SEC Use Only	
4.	Citizenship of Place of Organization  <b>United States</b>	
Number of Shares Beneficially Owned by Each Reporting Person With	5.	Sole Voting Power  <b>576,423<sup>1</sup></b>
	6.	Shared Voting Power  0
	7.	Sole Dispositive Power  <b>576,423<sup>1</sup></b>
	8.	Shared Dispositive Power
9.	Aggregate Amount Beneficially Owned by each Reporting Person  <b>576,423<sup>1</sup></b>	
10.	Check if the Aggregate Amount in Row (9) Excludes Certain Shares <input type="checkbox"/>	
11.	Percent of Class Represented by Amount in Row 9  6.1%	
12.	Type of Reporting Person (See Instructions)  <b>IN</b>	

1. Excludes 594,493 warrants to purchase Common Stock not exercisable at this time due to Beneficial Ownership limitations.
2. Based on 9,491,432 shares of Common Stock represented in the final IPO registration prospectus.

**ITEM 1:**

**(a) Name of Issuer:**

Bionano Genomics, Inc.

**(b) Address of Issuer's Principal Executive Offices:**

9640 Towne Centre Drive, Suite 100  
San Diego, California 92121

**ITEM 2:**

**(a) 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 LP"), 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;
- (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 indirectly held by AIGH LP, 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.

**(b) Address of Principal Business Office or, if None, Residence:**

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

**(c) Citizenship:**

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

**(d) Title of Class of Securities:**

Common Stock, par value \$0.0001 per share

**(e) CUSIP Number:**

09075F107

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**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);
- (k)  Group, in accordance with §240.13d-1(b)(1)(ii)(K).

If filing as a non-U.S. institution in accordance with §240.13d-1(b)(1)(ii)(J), please specify the type of institution:  
\_\_\_\_\_.

**ITEM 4: OWNERSHIP.**

See Items 5,6,7,8 and 9 of each cover page.

**ITEM 5: OWNERSHIP OF FIVE PERCENT OR LESS OF A CLASS.**

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following

**ITEM 6: OWNERSHIP OF MORE THAN FIVE 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.**

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 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.

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**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.

Dated: October 5, 2018

By: /s/ Orin Hirschman

Orin Hirschman,

Individually and as (a) managing member of the general partner of AIGH Investment Partners, L.P.: and (b) president of AIGH Investment Partners LLC.

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