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

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d) of the
Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): August 8, 2019

Bionano Genomics, Inc.

(Exact Name of Registrant as Specified in its Charter)

Delaware	**001-38613**	**26-1756290**
(State or Other Jurisdiction of Incorporation)	(Commission File Number)	(IRS Employer Identification No.)

9540 Towne Centre Drive, Suite 100 San Diego, California	**92121**
(Address of Principal Executive Offices)	(Zip Code)

Registrant's telephone number, including area code: **(858) 888-7600**

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth 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 13(a) of the Exchange Act. ☐
Securities registered pursuant to Section 12(b) of the Act:

Title of each class	**Trading Symbol(s)**	**Name of each exchange on which registered**
Common Stock, $0.0001 par value per share	BNGO	The Nasdaq Stock Market, LLC
Warrants to purchase Common Stock	BNGOW	The Nasdaq Stock Market, LLC

Item 2.02 Results of Operations and Financial Condition.

On August 8, 2019, Bionano Genomics, Inc. (the "Company") issued a press release reporting its financial results for the second quarter ended June 30, 2019. The full text of the press release is attached as exhibit 99.1 to this Current Report on Form 8-K.

In accordance with General Instruction B.2. of Form 8-K, the information contained or incorporated herein, including the press release filed as Exhibit 99.1, shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of that section, nor shall it be deemed to be incorporated by reference into any filing under the Securities Act of 1933, as amended, or the Exchange Act, whether made before or after the date hereof, except as expressly set forth by specific reference in such filing to this Current Report on Form 8-K.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

Exhibit No.	Description
99.1	Press release issued August 8, 2019, reporting financial results for the second quarter ended June 30, 2019.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Bionano Genomics, Inc.

Date: August 8, 2019

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

R. Erik Holmlin, Ph.D.

President and Chief Executive Officer
(Principal Executive Officer)

Bionano Genomics Reports Second Quarter 2019 Financial Results and Provides Business Update

Conference Call and Webcast Scheduled For Today, August 8, at 4:30 pm ET

SAN DIEGO, Aug. 8, 2019 - Bionano Genomics, Inc. (NASDAQ: BNGO), a life sciences instrumentation company that develops and markets Saphyr®, a platform for ultra-sensitive and ultra-specific structural variation detection in genome analysis, today reported its financial results for the second quarter and six-months ended June 30, 2019 and provided a business update.

Recent Business Highlights

- Presented initial results from key clinical studies designed to evaluate the performance of Saphyr® against traditional cytogenetics methods at the European Human Genetics Conference. Several posters were presented, including:
    - A poster from the team of Alex Hoischen, Ph.D. at Radboud University Medical Center in the Netherlands entitled: "*Next generation cytogenetics in medical genetics with high-resolution optical mapping*," where Tuomo Mantere and colleagues described the comparison of Bionano optical mapping on Saphyr with a suite of traditional cytogenetic methods including fluorescence in situ hybridization (FISH), karyotyping and chromosomal microarray (CMA). Additionally, as part of a workshop held at the same conference, Dr. Hoischen provided an up to the minute report on the ongoing study, noting that roughly 20% of the hematologic malignancy cases in the study had been completed and that about 35% of the human genetic disease cases were complete. The authors concluded that Bionano optical mapping with Saphyr identified all clinically reported variants with variant allele fraction greater than 10% in patients tested for hematologic malignancies and similarly that all known aberrations were identified in patients tested for constitutional genetic disorders. The authors further reported that in many cases, the complex pathogenic variants identified by Saphyr proved to be more complex than had been previously known based on an understanding developed with lower resolution methods such as FISH, karyotyping and CMA. The finding of additional complexity implies the potential for Saphyr to be used to further stratify patients in the future, leading to better treatment decisions and patient outcomes.
    - In another study, entitled: "*Evaluation of the Bionano optical mapping technology as a replacement of conventional cytogenetics in a diagnostic setting*," Charlotte Keith and team from Western General Hospital in Edinburgh, Scotland, compared Bionano optical mapping to karyotyping and CMA on benchmark samples, including those containing

balanced translocations and large deletions. In one case, the higher resolution of optical mapping resolved the breakpoint of a translocation to being within a gene, and demonstrated that the translocation truncated the gene, potentially altering the function of the gene. The authors report that the successful proof-of-principle study has cleared the way to a larger validation, which upon successful completion, could potentially enable use of the Bionano Saphyr system in clinical workflows.

- In an oral presentation, Lisanne Vervoort from the Katholieke Universiteit Leuven, Belgium presented a study on DiGeorge syndrome, a syndrome typically affecting infants with symptoms including heart defects, developmental delay and frequent infections. The Leuven team has been able to decode the complex, repetitive region of the genome that is responsible for the disease using Bionano optical mapping as part of a large collaboration. Furthermore, the authors leveraged data from a large population study of 154 human samples from different ethnic groups to determine the ethnic differences in the frequency of these specific genomic structures to potentially explain ethnic variation in the disease.

- In another study, Laila El-Khattabi, Pharm.D., Ph.D. from Hospital Cochin of Paris Descartes University presented results where Saphyr detected a wide variety of balanced and unbalanced chromosomal abnormalities that occur in developmental disorders such as autism and developmental delay, and reproductive disorders such as male infertility and recurrent pregnancy loss, as part of a 30-sample clinical validation initiative. Several balanced translocations detected by Saphyr had been missed by whole genome sequencing analysis. Saphyr showed its ability to detect the clinically relevant variants that otherwise would need to be sought after by a combination of less efficient traditional techniques, such as karyotyping and chromosomal microarrays.

- Appointed Kristiina Vuori, M.D., Ph.D., to its board of directors. Dr. Vuori is recognized for delineating molecular pathways that regulate cancer cell survival, motility, metastasis and drug responsiveness, and her molecular characterization of prolyl hydroxylase helped to enable the formation of FibroGen (NASDAQ: FGEN). Dr. Vuori is President of Sanford Burnham Prebys Medical Discovery Institute (SBP) and serves as Professor of the National Cancer Institute (NCI)-designated Cancer Center at SBP.

“We remain steadfastly focused on our markets as our execution continues to drive interest and build demand. We are pleased to make progress each quarter on our goal of establishing Saphyr as a best-in-class structural variation detection and discovery system,” said Erik Holmlin, Ph.D., CEO of Bionano. “We also continue to add to the body of scientific evidence demonstrating Saphyr to be comparable to the standard of care in cytogenetics but with a more reliable and cost effective workflow.”

Second Quarter Financial Highlights

Total Revenue. Total revenue decreased by $1.2 million, or 35.9%, to $2.2 million for the three months ended June 30, 2019 compared to $3.4 million for the same period in 2018. The decrease in revenue is driven predominantly by a decrease in international sales. Below is a summary of changes for the three months ended June 30, 2019 as compared to the same period in 2018:

- North America revenue decreased by $0.1 million, or 9%;
- EMEIA revenue decreased by $0.5 million, or 51%; and
- Asia Pacific revenue decreased by $0.6 million, or 66%.

Cost of Revenue. Total cost of revenue decreased by $0.3 million, or 14.2%, to $1.6 million for the three months ended June 30, 2019 compared to $1.8 million for the same period in 2018. The decrease was predominantly due to a reduction in the number of instruments and consumables sold.

Operating Expenses. Operating expenses increased by $1.9 million, or 33.5%, to $7.5 million for the three months ended June 30, 2019 compared to $5.6 million for the same period in 2018. The increase was mainly attributed to higher selling, general, and administrative expense which was due to the addition of public company costs as well as the addition of sales and marketing professionals and support personnel to assist with the growth of our worldwide commercial footprint.

Net Loss. Net loss for the three months ended June 30, 2019 was $7.7 million compared to a net loss of $3.3 million for the same period in 2018.

Cash and cash equivalents. At June 30, 2019, the Company had cash and cash equivalents of $15.3 million, compared to cash and cash equivalents of $16.5 million at December 31, 2018.

Conference Call & Webcast Details

The Company will host a conference call and live webcast to discuss its second quarter 2019 financial results and provide an update on business activities. The event will be held today at 4:30 p.m Eastern Time. Dial-in details are as follows:

Date: Thursday, August 8, 2019
Time: 4:30 p.m. Eastern Time
Toll Free: 800-263-0877
International: 646-828-8143
Conference ID: 2516163
Webcast: http://public.viavid.com/index.php?id=135567

To access the call, participants should dial the applicable telephone number above at least 5 minutes prior to the start of the call. An archived version of the webcast will be available for replay in the Investors section of the Bionano website.

About Bionano Genomics

Bionano is a life sciences instrumentation company in the genome analysis space. Bionano develops and markets the Saphyr system, a platform for ultra-sensitive and ultra-specific structural variation detection that enables researchers and clinicians to accelerate the search for new diagnostics and therapeutic targets and is designed to drive the adoption of digital cytogenetics, which is a more systematic, streamlined and industrialized form of traditional cytogenetics. The Saphyr system comprises an instrument, chip consumables, reagents and a suite of data analysis tools.

Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Words such as "may," "will," "expect," "plan," "anticipate," "estimate," "intend" and similar expressions (as well as other words or expressions referencing future events, conditions or circumstances) convey uncertainty of future events or outcomes and are intended to identify these forward-looking statements. Forward-looking statements include statements regarding our intentions, beliefs, projections, outlook, analyses or current expectations concerning, among other things: Saphyr's unique ability to comprehensively detect structural variations and identify their human disease associations; the benefits of recent improvements to the Saphyr system, including improved cost effectiveness, speed and ease of use for digital cytogenetics; the benefits of new data and publications, including their validation of Saphyr as the leading digital cytogenetics; and our efforts to execute on our commercial strategy. Each of these forward-looking statements involves risks and uncertainties. Actual results or developments may differ materially from those projected or implied in these forward-looking statements. Factors that may cause such a difference include the risks that our sales, revenue, expense and other financial guidance may not be as expected, as well as risks and uncertainties associated with: general market conditions; changes in the competitive landscape and the introduction of competitive products; changes in our strategic and commercial plans; our ability to obtain sufficient financing to fund our strategic plans and commercialization efforts; the loss of key members of management and our commercial team; and the risks and uncertainties associated with our business and financial condition in general, including the risks and uncertainties described in our filings with the Securities and Exchange Commission, including, without limitation, our Annual Report on Form 10-K for the year ended December 31, 2018 and in other filings subsequently made by us with the Securities and Exchange Commission. All forward-looking statements contained in this press release speak only as of the date on which they were made and are based on management's assumptions and estimates as of such date. We do not undertake any obligation to publicly update any forward-looking statements, whether as a result of the receipt of new information, the occurrence of future events or otherwise.

Contacts

Bionano Contact:
Mike Ward, CFO
Bionano Genomics, Inc.
+1 (858) 888-7600
mward@bionanogenomics.com

Bionano Investor Relations Contact:
Ashley R. Robinson
LifeSci Advisors, LLC
+1 (617) 535-7742
arr@lifesciadvisors.com

Media Contact:
Kirsten Thomas
The Ruth Group
+1 (508) 280-6592
kthomas@theruthgroup.com

Financial tables follow

Bionano Genomics, Inc.

Consolidated Statements of Operations

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	**2018**	**2019**	**2018**
Revenue:				
Product revenue	$ 2,020,398	$ 3,256,023	$ 3,707,984	$ 4,918,245
Other revenue	154,237	133,986	319,397	240,249
Total revenue	2,174,635	3,390,009	4,027,381	5,158,494
Cost of revenue:				
Cost of product revenue	1,525,334	1,803,461	2,644,885	2,644,043
Cost of other revenue	29,912	9,969	57,403	10,836
Total cost of revenue	1,555,246	1,813,430	2,702,288	2,654,879
Operating expense:				
Research and development	2,407,692	2,098,826	4,507,803	4,465,919
Selling, general and administrative	5,056,005	3,489,974	9,846,607	6,385,378
Total operating expense	7,463,697	5,588,800	14,354,410	10,851,297
Loss from operations	(6,844,308)	(4,012,221)	(13,029,317)	(8,347,682)
Other income (expense):				
Interest expense	(565,888)	(407,635)	(838,392)	(709,616)
Change in fair value of preferred stock warrants and expirations	—	1,517,723	—	2,470,921
Loss on debt extinguishment	—	(342,164)	(921,496)	(342,164)
Other expense	(249,884)	(61,673)	(718,132)	(221,015)
Total other income (expense)	(815,772)	706,251	(2,478,020)	1,198,126
Loss before income taxes	(7,660,080)	(3,305,970)	(15,507,337)	(7,149,556)
Provision for income taxes	(4,486)	(5,506)	(8,972)	(9,282)
Net loss	$ (7,664,566)	$ (3,311,476)	$ (15,516,309)	$ (7,158,838)

Bionano Genomics, Inc.

Consolidated Balance Sheets

	June 30, 2019	December 31, 2018
Assets		
Current assets:		
Cash and cash equivalents	$ 15,294,526	$ 16,522,729
Accounts receivable, net	4,983,510	4,514,333
Inventory	3,022,090	1,068,557
Prepaid expenses and other current assets	631,853	919,500
Total current assets	23,931,979	23,025,119
Property and equipment, net	1,278,889	1,777,302
Total assets	$ 25,210,868	$ 24,802,421
Liabilities and stockholders' equity (deficit)		
Current liabilities:		
Accounts payable	$ 3,617,836	$ 1,351,736
Accrued expenses	2,702,015	2,900,129
Deferred revenue	421,342	270,998
Line of credit	799,815	—
Total current liabilities	7,541,008	4,522,863
Long-term debt	18,621,696	9,029,374
Long-term deferred revenue	219,202	304,467
Other non-current liabilities	173,772	808,366
Total liabilities	26,555,678	14,665,070
Total stockholders' equity (deficit)	(1,344,810)	10,137,351
Total liabilities and stockholders' equity (deficit)	$ 25,210,868	$ 24,802,421