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 4, 2021

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))

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

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. ☐

Item 2.02 Results of Operations and Financial Condition.

On August 4, 2021, Bionano Genomics, Inc. (the "Company") issued a press release reporting its financial results for the second quarter ended June 30, 2021. 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 8.01 Other Events.

As previously announced, the Company is hosting a conference call on August 4, 2021 at 4:30 PM Eastern Time to review its financial results for its second quarter ended June 30, 2021 and to provide a business update (the "Earnings Call"). A presentation to accompany the Earnings Call (the "Corporate Presentation") is attached hereto as Exhibit 99.2. Information contained in the Corporate Presentation may also be used by the Company in future meetings regarding the Company.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

Exhibit No.	Description
99.1	Press release issued August 4, 2021, reporting financial results for the second quarter ended June 30, 2021
99.2	Corporate presentation, August 4, 2021
104	Inline XBRL for the cover page of this Current Report on Form 8-K

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 4, 2021

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 2021 Financial Results and Highlights Recent Business Progress

- *226% year-over-year total revenue increase driven by growth in the Saphyr installed base*
- *All 2021 milestones on track*
- *Strong balance sheet with $333 million in cash as of June 30, 2021*
- *Conference call today, Wednesday, August 4, at 4:30 pm ET*

SAN DIEGO, August 4, 2021 – Bionano Genomics, Inc. (NASDAQ: BNGO) today reported financial results and business achievements for the second quarter ended June 30, 2021 and highlighted recent corporate updates.

“We had a strong quarter to cap off the first half of 2021, which we believe was one of the most transformational periods in Bionano’s history. For the quarter ended June 30, 2021, total revenue was $3.9 million, up 226% on a year-over-year basis, and we demonstrated great performance in many areas of our execution, including the achievement of our strategic goals to facilitate customer development of laboratory developed tests (LDTs) based on optical genome mapping (OGM) with Saphyr and to gain accreditation in certain European countries,” commented Erik Holmlin, PhD, CEO of Bionano Genomics. “With OGM, we are aiming to transform the way the world sees the genome in our relentless pursuit of enabling genomic insights and elevating human wellness.”

Chris Stewart, Chief Financial Officer of Bionano added: “The second quarter of 2021 was very positive for Bionano, with steady and continued year-over-year revenue growth, a strong cash position of $333 million at quarter-end, and significant momentum in the cytogenetics market with increased global adoption of our product. To gain further traction in the market, we are focused on reimbursement in the United States, converting the existing cytogenetics workflow in Europe and increasing our installed base to our target number of 150 Saphyr systems by year-end.”

Key Business Highlights

The Company executed on its commercialization strategy, continued to build scientific momentum by presenting data at key scientific meetings and drove utilization of Saphyr at key institutions across the globe, with the following highlights:

- Shipped 13 Saphyr systems in the quarter ended June 30, 2021, compared to 6 systems shipped in the same quarter in 2020. Installations completed in the

quarter brought the total number of Saphyr systems installed to 121 as of June 30, 2021.

- Sold 2,742 nanochannel array flow cells during the quarter ended June 30, 2021, representing Bionano's highest quarter for such sales ever. The increase represents 93% growth over the same quarter in 2020.
- Gained Saphyr adoption at several notable cytogenetics laboratories in the United States, including Children's Hospital of Cincinnati, which is using OGM to identify structural variations in pediatric leukemias. Outside the US, Saphyr was adopted in Korea, Europe, Africa and China, including at Medicover in Germany, one of the largest commercial diagnostic companies in Europe and at NuProbe in China, a cutting-edge company developing cancer diagnostic assays.
- In the United Kingdom, Saphyr was adopted by two large laboratories belonging to the National Health System (NHS): King's College Hospital in London and the NHS Regional Genetics Laboratory in Belfast City Hospital.
- The rise in publications and presentations featuring OGM data that began in Q1 continued in Q2. Bionano experienced its largest presence to-date at the 2021 Annual Clinical Genetics Meeting of the American College of Medical Genetics and Genomics (ACMG), which was held April 13-16. The meeting featured a total of sixteen presentations by Saphyr customers and Bionano scientists, almost three times the number presented last year and nearly all based on work done in the United States.
- Two peer-reviewed studies from world renowned scientists and clinicians from prestigious institutions in Europe, including Radboud University Medical Center, Cochin Hospital in Paris, Hospices Civils in Lyon and the University Hospital of Clermont-Ferrand, were published back-to-back in the American Journal of Human Genetics. The papers outlined the utility of OGM as a superior alternative to traditional methods for structural variant analysis.
- Bionano customers delivered a record number of presentations featuring OGM data at the 2021 European Cytogenomics Conference, which helps support the increased adoption of Saphyr in Europe and shows the wide range of clinical research applications for OGM. The data presented in the talks from leading key clinicians and posters showcased OGM as a superior solution for genomic analysis in leukemia and genetic disease compared to traditional techniques.

- Bionano's Dr. Alka Chaubey and Cancer Genomics Consortium President Dr. Yassmine Akkari presented on the significant role of OGM and its potential to transform the cytogenetics market at the 2021 International Conference of the Board of Genetic Counseling.

- Enhanced senior management team with the appointments of Jason Priar as Chief Commercial Officer and Richard Shippy as Chief Business Officer.

- On May 4th, 2021, Bionano was issued the U.S. patent "METHODS AND DEVICES FOR SINGLE-MOLECULE WHOLE GENOME ANALYSIS," which covers novel labeling methods that complement Bionano's whole-genome mapping approach by allowing the targeting in certain areas of the genome and provide a higher level of resolution below the typical 500 bp cutoff of OGM with Saphyr.

- Bionano was added as a member of the US small-cap Russell 2000® index on June 28, 2021, which means Bionano's share performance is now included in a leading benchmark for institutional investors. Membership in the Russell 2000® Index, which remains in place for one year, is based on membership in the broad-market Russell 3000® Index.

- Made significant progress in the field for development of LDTs and accreditation in Europe, including Belgium, Germany and Spain. Two sites in the US, Augusta University and Praxis Genomics, applied for and received proprietary laboratory analysis (PLA) codes. These codes are expected to be used by these institutions to establish reimbursement for OGM tests performed in their laboratories. Pricing for these PLA codes are anticipated to be determined and released by the end of this year.

- At the 2021 Annual Cancer Genomics Consortium being held August 1-4th, 2021, which is one of the most important cancer genetics meetings in the world, Bionano customers delivered 10 presentations highlighting the benefits of OGM for clinical research applications in solid tumor analysis, hematological malignancies, products of conception, prenatal and postnatal constitutional genetics.

Financial Highlights

- Total revenue was $3.9 million for the three months ended June 30, 2021, up 226% from $1.2 million in the same period in 2020. Year-over-year, revenue was up in all geographies and across both product and service revenue for the three and six months ended June 30, 2021 as compared to the same periods in 2020.

The increase in global product sales was driven by increased demand for our Saphyr instrument and consumables, while the increase in service revenue was primarily driven by our Lineagen subsidiary.

- Gross margin for the second quarter of 2021 was 37%, up from 33% in the first quarter of 2021, primarily due to a shift in sales, and down 12% from the same period in 2020, due mainly to a substantial increase in revenue contribution from instruments off of the COVID-19-driven low in the second quarter of 2020.

- Second quarter operating expense was $17.9 million, compared to $12.2 million in the first quarter of 2021 and $8.0 million in the second quarter of 2020. The year-on-year increase was primarily due to expenses from the Lineagen acquisition and increased headcount-related spending as we build out all facets of the organization to support our expected commercial progress. In addition, the second quarter of 2020 was affected by the COVID-19 driven cost savings measures, including across the board salary reductions. The sequential increase was mainly due to $3.7 million in increased headcount and related expenses, including a $1.4 million increase in non-cash stock based compensation due to second quarter 2021 employee equity grants amplified by the impact of our higher stock price.

- In other income and expenses, we recorded a net expense of $2.3 million, which was largely associated with the payment in full of the $16 million outstanding balance on our Innovatus term loan and the end of term fees and accrued interest, $1.2 million of which was non-cash.

- At June 30, 2021, the Company had cash and cash equivalents of $333 million compared to cash and cash equivalents of $38.4 million at December 31, 2020. The increase in cash is due to the equity raises that were completed in January 2021.

Remaining Anticipated Milestones for 2021 – Initiatives to Drive Global Adoption of Saphyr

3Q21: Commercial release of prenatal assays and expansion of the menu of pediatric assays
4Q21: Interim publication of results from pediatric clinical study
4Q21: Validation of LDTs by 3 sites in both our prenatal clinical study and our pediatric clinical study
4Q21: Initial prototype of next gen high throughput Saphyr
4Q21: Reach installed base of 150 systems to achieve a 50% increase over year end 2020

Conference Call & Webcast Details

Date:	Wednesday, August 4, 2021
Time:	4:30 p.m. Eastern Time
Toll Free:	1-877-407-0784
International:	1-201-689-8560
Conference ID:	13722135
Webcast:	https://edge.media-server.com/mmc/p/buc9p49d

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 genome analysis company providing tools and services based on its Saphyr system to scientists and clinicians conducting genetic research and patient testing, and providing diagnostic testing for those with autism spectrum disorder (ASD) and other neurodevelopmental disabilities through its Lineagen business. Bionano's Saphyr system is a research use only 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 to streamline the study of changes in chromosomes, which is known as cytogenetics. The Saphyr system is comprised of an instrument, chip consumables, reagents and a suite of data analysis tools. Bionano provides genome analysis services to provide access to data generated by the Saphyr system for researchers who prefer not to adopt the Saphyr system in their labs. Lineagen has been providing genetic testing services to families and their healthcare providers for over nine years and has performed over 65,000 tests for those with neurodevelopmental concerns. For more information, visit www.bionanogenomics.com or www.lineagen.com.

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: the significance of Bionano OGM data presented in the publications and presentations discussed in this press release; Bionano OGM's superiority in genomic analysis as compared to traditional techniques; our efforts and expectations regarding adoption of Saphyr through the United States and Europe; the potential reimbursement of LDTs based on Saphyr; our cash position and its potential impact on our ability to execute our operational objectives; our anticipated milestones for the rest of 2021; and the advancement of our business 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 and uncertainties associated with: the impact of the COVID-19 pandemic on our business and the global economy; 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 ability of medical and research institutions to obtain funding to support adoption or continued use of our technologies; the loss of key members of management and our commercial team; our inability to achieve the anticipated benefits from our acquisition of Lineagen; 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, 2021 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

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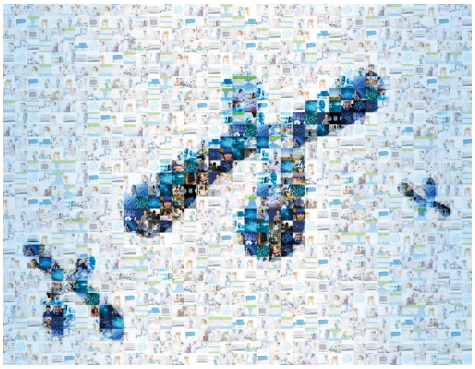

Bionano Genomics, Inc.

Condensed Consolidated Balance Sheet

	(Unaudited) June 30, 2021	December 31, 2020
Assets		
Current assets:		
Cash and cash equivalents	$ 332,554,000	$ 38,449,000
Accounts receivable, net	2,838,000	2,775,000
Inventory	4,890,000	3,316,000
Prepaid expenses and other current assets	1,683,000	2,250,000
Total current assets	341,965,000	46,790,000
Property and equipment, net	6,084,000	4,910,000
Intangible Assets	1,317,000	1,475,000
Goodwill	7,173,000	7,173,000
Other Long Term Assets	$ 270,000	$ 103,000
Total assets	$ 356,809,000	$ 60,451,000
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$ 3,745,000	$ 2,930,000
Accrued expenses	6,540,000	5,599,000
Contract liabilities	445,000	416,000
Total current liabilities	10,730,000	8,945,000
Long-term debt	—	16,326,000
Long-term contract liabilities	213,000	98,000
Total liabilities	10,943,000	25,369,000
Stockholders' equity:		
Common stock	28,000	19,000
Additional paid-in capital	518,255,000	178,747,000
Accumulated deficit	(172,417,000)	(143,684,000)
Total stockholders' equity	345,866,000	35,082,000
Total liabilities and stockholders' equity	$ 356,809,000	$ 60,451,000

Bionano Genomics, Inc.

Condensed Consolidated Statement of Operations (Unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2021	2020	2021	2020
Revenue:				
Product revenue	$ 2,496,000	$ 940,000	$ 4,545,000	$ 1,923,000
Service and other revenue	1,360,000	242,000	2,479,000	395,000
Total revenue	3,856,000	1,182,000	7,024,000	2,318,000
Cost of revenue:				
Cost of product revenue	1,869,000	515,000	3,383,000	1,289,000
Cost of service and other revenue	548,000	88,000	1,159,000	170,000
Total cost of revenue	2,417,000	603,000	4,542,000	1,459,000
Operating expenses:				
Research and development	4,086,000	2,401,000	6,765,000	5,075,000
Selling, general and administrative	13,829,000	5,613,000	23,357,000	12,981,000
Total operating expenses	17,915,000	8,014,000	30,122,000	18,056,000
Loss from operations	(16,476,000)	(7,435,000)	(27,640,000)	(17,197,000)
Other income (expenses):				
Interest expense	(210,000)	(561,000)	(748,000)	(1,322,000)
Gain on forgiveness of PPP Loan	—	—	1,775,000	—
Loss on debt extinguishment	(2,076,000)	—	(2,076,000)	—
Other expenses	(15,000)	(73,000)	(29,000)	(55,000)
Total other income (expenses)	(2,301,000)	(634,000)	(1,078,000)	(1,377,000)
Loss before income taxes	(18,777,000)	(8,069,000)	(28,718,000)	(18,574,000)
Provision for income taxes	(9,000)	(5,000)	(15,000)	(10,000)
Net loss	$ (18,786,000)	$ (8,074,000)	$ (28,733,000)	$ (18,584,000)

Q2 Webcast and Call

August 4, 2021

Legal Disclaimer

This presentation contains forward-looking statements. Forward-looking statements describe future expectations, plans, results or strategies and are generally preceded by terms such as “may,” “will,” “should,” “could,” “would,” “expects,” “plans,” “anticipates,” “believes,” “estimates,” “projects,” “predicts,” “potential” and similar expressions (including the negative thereof). Forward-looking statements in this presentation include, but are not limited to, statements regarding: (i) growth drivers and expected levels of our organic growth; (ii) improvements to our manufacturing cost efficiency; (iii) the impact of our investment in R&D and commercial initiatives; (iv) our ability to stay in front of competitors’ improvements in technologies; (v) anticipated milestones; and (vi) other statements that are not historical facts.

Actual results or developments may differ materially from those projected or implied in these forward-looking statements. Forward-looking statements are based only on current information, assumptions and expectations, and involve a number of risks and uncertainties relating to (i) challenges inherent in developing, manufacturing and commercializing products; (ii) the timing and mix of customer orders among our products; (iii) our ability to further deploy new products and applications and expand the markets for our technology platforms; (iv) third parties’ abilities to manufacture our instruments and consumables; (v) the success of products competitive with our own; (vi) our expectations and beliefs regarding future growth of the business and the markets in which we operate; (vii) the accuracy of our estimates, (viii) our ability to fund our operations and (ix) the application of generally accepted accounting principles which are highly complex and involve many subjective assumptions. We are under no duty to update any of these forward-looking statements after the date of this presentation to conform these statements to actual results or revised expectations, except as required by law. You should, therefore, not rely on these forward-looking statements as representing our views as of any date subsequent to the date of this presentation. Moreover, except as required by law, neither we nor any other person assumes responsibility for the accuracy and completeness of the forward-looking statements contained in this presentation.

More information about these and other statements, risks and uncertainties is contained in our filings with the U.S. Securities and Exchange Commission. All forward-looking statements contained in this presentation speak only as of the date on which they were made. We disclaim any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, occurrence of future events or otherwise except as required by applicable law.

Bionano Genomics: 3 Key Areas of Focus

GROW
the installed base

In clinical research and discovery research markets where OGM complements any type of sequencing

EXPAND
the utility of OGM

To continuously innovate to bring new capabilities that accelerate throughput

VALIDATE OGM
with critical mass of clinical data

Through Bionano pivotal clinical studies and third-party support and advocacy

Building momentum to drive adoption of OGM

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Q2 2021: Great Results and Execution

Q2

13 Saphyr Systems Shipped
121 total installed

Advancing Go to Market – Bionano Data Centric Services, Reagent Rentals & Capital Purchase

Increased Number of Presentations for Leukemia Research

16 Talks and Posters

New Applications in Prenatal Testing, Cancer Research & Development Presented

49 New Publications in Q2, the Most OGM Publications Ever in a Single Quarter

Total Revenue: $3.9M

Global Adoption of Saphyr

NEW GLOBAL REGIONS & ADOPTIONS

Cincinnati Children's

Belfast Health and Social Care Trust
caring supporting improving together

MEDICOVER

NUPROBE

NHS King's College Hospital NHS Foundation Trust

ADDED EXPERIENCED TALENT TO MANAGEMENT TEAM

Jason Priar
Chief Commercial Officer

PerkinElmer · GeneDx · sema4

Richard Shippy
Chief Business Officer

affymetrix · illumina · GE Healthcare · Cradle

Strong adoption throughout target geographies, including the US, and new markets for prenatal analysis, cancer research and drug development

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Record Number of Presentations Featuring OGM Data at the 2021 European Cytogenomics Association Conference from July 3 - 5

Institution	Bionano's OGM Benefits Presented
UZ LEUVEN	• Improvement to patient treatment and prognostic accuracy for ALL • 100% concordance relative to standard of care w/ no false positives • 21-day reduction in turnaround time vs. traditional techniques • 50% reduction in cost for OGM relative to standard techniques
Hospital Infantil Universitario Niño Jesús	• 100% concordance vs. traditional assay techniques for pediatric leukemias • 60% of these cases revealed new clinically relevant information with OGM • Detected variants important for prognosis stratification and treatment
Hospital del Mar / Parc de Salut MAR — HOSPITAL DEL MAR	• OGM successfully predicted the most severe prognosis for CLL • OGM provided additional insights in 45% of cases • Improved prognostic performance relative to standard techniques
CHU de Liège	• Identified correct structure of complex rearrangement in AML • OGM was the only technique capable of this full characterization
Hôpital Necker Enfants malades AP-HP	• A new recognizable genetic disorder characterized by OGM • OGM provided insights into the underlying mechanism of formation
Zentrum für Humangenetik und Laboratoriumsdiagnostik (MVZ) Dr. Klein, Dr. Rost und Kollegen	• OGM identified a rare, three-way balanced translocation • Important clinically-relevant chromosomal aberration leading to infertility

bionano GENOMICS

Record Number of Presentations Featuring OGM Data at the 2021 Cancer Genomics Consortium Annual Meeting from August 1 - 4

OGM Application Area	Presenter	Affiliation	Presentation Title
Solid Tumor Analysis	Dr. Miriam Bornhorst	Children's National Hospital	Optical genome mapping reveals novel structural variants in pediatric high-grade gliomas.
	Dr. Nikhil Sahajpal	Augusta University	Clinical utility and feasibility of adopting optical genome mapping for chromosomal characterization of solid tumors.
Hematological Malignancies	Dr. Rashmi Kanagal-Shamanna	MD Anderson Cancer Center	Optical genome mapping for chromosomal structural variants analysis in hematological malignancies.
	Dr. Gordana Raca	Children's Hospital Los Angeles	Complementarity of RNA sequencing and optical genome mapping in detection of rare fusions in pediatric B-ALL.
	Dr. Victoria Stinnett	The Johns Hopkins University	Adoption of optical genome mapping in clinical cancer cytogenetic laboratory: A stepwise approach.
	Dr. Guilin Tang	UT MD Anderson Cancer Center	Optical Genome Mapping Reveals Genomic Complexity and Detects Novel Genetic Abnormalities in T-Lymphoblastic Leukemia.
	Dr. Jia-Chi Wang	City of Hope National Medical Center	Integrative cytogenomics studies using optical genome mapping in two cases with chronic lymphocytic leukemia.
Prenatal Genetics	Dr. Nikhil Sahajpal	Augusta University	Next-generation cytogenetics: Proposal for a cost-effective approach for comprehensive testing of prenatal cases.
Products of Conception	Dr. Nikhil Sahajpal	Augusta University	Optical genome mapping and SNP microarray: integrated workflow for optimizing analysis of products of conception.
Postnatal/Constitutional Genetics	Dr. Thuy Phung	University of South Alabama	Genomic structural variations in lymphatic anomalies.

Bionano Data Continues to Contribute to Advances in Research

Myelodysplastic Syndrome
Reduced the time to results for tumor analysis from weeks to days

Pediatric Leukemia
Detected druggable gene fusions that next-generation sequencing and cytogenetics missed

ALS
Resolved mosaic repeat expansions

Leukemia
In 12 patients, found dozens of novel genes with recurring structural variants

Alzheimer's Disease
Identified deletions in CR1

Epilepsy and Developmental Delay
Detected 90 kbp mosaic deletion in CDKL5

Hepatocellular Carcinoma
Identified Hep B Virus insertion that caused tumor and replication stress

Congenital Diaphragmatic Hernia
Revealed complex genome structures and new candidate genes

Disorder of Sex Development
Identified 6 kbp insertion in WDR11

3q29 Microdeletion Syndrome
Characterized large, complex repeats and rearrangements in parents of 3q29 patients

In results expected to be published, based on comparative studies against one or more of NGS, CMAs, FISH & Karyotyping

Advanced and Optimized the Performance of the Saphyr System for Adoption in Labs to Support Development of Clinical Assays and LDTs

AUGUSTA UNIVERSITY	✓ Launched an LDT for whole genome analysis with OGM for constitutional genetic disease ✓ Developing LDTs for prenatal and solid tumor analysis ✓ Received PLA code
PRAXIS GENOMICS | Rare Disease Diagnosis and Counseling	✓ Launched an LDT for whole genome analysis with OGM for constitutional genetic disease ✓ Received PLA code

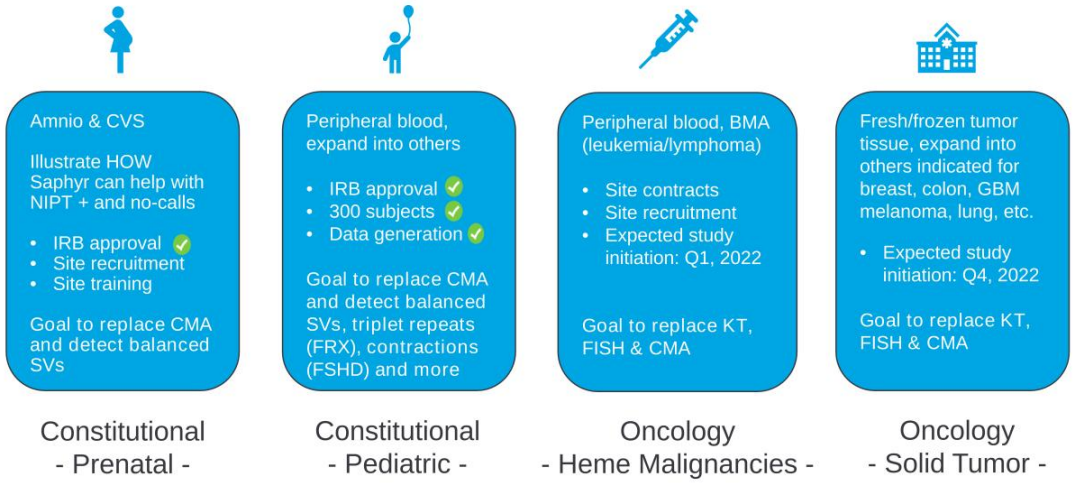
KEY ACCREDITATIONS IN BELGUIM, GERMANY AND SPAIN

bionano GENOMICS

Clinical Affairs Summary

Dr. Alka Chaubey
CMO
achaubey@bionanogenomics.com

Four Large Clinical Studies Getting Underway to Support Penetration of our Target Markets & Support Potential Third-Party Reimbursement



Constitutional
- Prenatal -

Constitutional
- Pediatric -

Oncology
- Heme Malignancies -

Oncology
- Solid Tumor -

bionano GENOMICS

Financial Overview

Chris Stewart
CFO
cstewart@bionanogenomics.com

Q2 2021 – Financial Results and Key Highlights

- Total revenue was $3.9M, up 226% from Q2 2020
- Year-on-year revenue was up in all geographies and across both product and service revenue
- BNGO is a member of the Russell 2000® Index

$M, except EPS	2Q21 Actual
Revenue	$3.9
Cost of Revenue	2.4
Gross Profit	1.4
Gross Margin %	37%
Operating Expense	17.9
Operating Income (Loss)	(16.5)
Other Expense (Income)	2.3
Net Income (Loss)	($18.8)
Weighted avg shares (M)	279
EPS	($0.07)
Cash	$333

Strong cash position with $333M to end Q2 2021

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Summary

R. Erik Holmlin
CEO
eholmlin@bionanogenomics.com

Key Anticipated Milestones Expected to Drive Value for BNGO

2Q

- ✓ Accreditation of Saphyr based LDTs for ALL & FSHD in certain EU markets

3Q

- Commercial release of prenatal assays for Saphyr and expansion of Saphyr's menu of pediatric assays

4Q

- Interim publication of results from pediatric clinical study
- Validation of 3 LDTs total by sites in our prenatal and pediatric clinical studies
- Prototype of next-gen high throughput Saphyr
- Targeted installed base of 150 systems, potentially a 50% increase over year end 2020

2021

bionano GENOMICS

Questions & Answers

Contact:

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