10 Presentations on Day 3 of Bionano Symposium 2026 Showcase OGM's Utility in Unraveling the Complex Puzzles of Constitutional Genetic Disorders

February 26, 2026

SAN DIEGO, Feb. 26, 2026 (GLOBE NEWSWIRE) -- Bionano Genomics, Inc. (Nasdaq: BNGO) today announced highlights from Day 3 of Bionano Symposium 2026, entitled *OGM Making its Mark in Constitutional Genetic Disorders*. Presentations highlighted how these conditions, which include developmental delay, intellectual disability, neuromuscular disorders, reproductive disorders, birth defects and other so-called rare diseases, present unique challenges to the cytogenetics and molecular pathology teams investigating them. Unlike hematologic malignancies, where established guidelines may better define the search for relevant chromosomal aberrations and genetic variants, the genetic drivers of constitutional disorders are more typically unknown, which makes Bionano's end-to-end workflow based on the unbiased, genome-wide approach of optical genome mapping (OGM) particularly useful. Attendance at Symposium 2026 has grown to more than 1,200 participants from over 73 countries, with Day 3's presentations coming from Japan, India, Brazil,
the Netherlands, Turkey, and the United States, while the online poster hall now features 50 posters.

Alka Chaubey, PhD, FACMG, Bionano's chief medical officer, opened the session by emphasizing the power of OGM to deliver unbiased, comprehensive, genome-wide structural variant (SV) detection. She highlighted how OGM can provide positional context for interpreting complex rearrangements. Dr. Chaubey also noted the rapid growth in OGM publications and demonstrated how VIA™ software can facilitate interpretation, turning complex structural variants into insights, helping to standardize workflows and uncover previously hidden genomic information.

Among the key scientific highlights:

Dr. Yassmine Akkari (Nationwide Children's Hospital) traced the evolution of constitutional genomics and the growing impact of OGM in constitutional disorders. She highlighted how OGM can shift the paradigm for research in rare and unresolved disorders by bridging gaps between cytogenetics and molecular genomics and uncovering variants missed by traditional cytogenetics or sequencing, emphasizing the technology's transformative role.

Dr. Mehmet Burak Mutlu (Detagen Genetic Diseases Diagnosis and Evaluation Center) demonstrated OGM's utility in autism spectrum disorder (ASD). In a study, they identified relevant variants to ASD in 24% of 34 cases, including *FMR1* repeat expansions and candidate gene SVs missed by exome sequencing. Detailed case studies highlighted OGM's unique capacity to detect complex translocations, mosaic repeat expansions, and cryptic structural variants, positioning OGM as a potential "all-in-one" analytical tool for neurodevelopmental disorders.

Drs. Li Fu (Yokohama City University) and Debopriya Chakraborty (Dartmouth-Hitchcock Medical Center) explored how OGM can play a role in reproductive genetics, revealing cryptic balanced and unbalanced translocations in recurrent pregnancy loss (RPL), providing insights that conventional karyotyping and microarray often miss and supporting future use of OGM for improved genetic counseling and family planning.

Dr. Walaa Darwiche (CHU Amiens - Picardie), Dr. Laila El Khattabi (Sorbonne University APHP Hospitals and Paris Brain Institute), & Dr. Bruna Burssed (Universidade Federal de São Paulo and Radboud University Medical Center) presented studies highlighting OGM's ability to resolve rare constitutional rearrangements, including complex copy number variations and mosaicism. Their collective findings underscored OGM's role in identifying previously undetectable relevant events across diverse populations, improving the understanding in unresolved cases.

Dr. Karthik Bharadwaj Tallapaka (Centre for Cellular and Molecular Biology) demonstrated the power of OGM to detect structural variants associated with fascioscapulohumeral muscular dystrophy (FSHD), infertility and reproductive disorders in research cases in India, showing how genome-wide mapping can uncover subtle yet relevant alterations missed by conventional cytogenetics, and provides new opportunities to understand genetic contributions to reproductive challenges. Dr Bharadwaj emphasized the need for population specific OGM databases to strengthen the discovery in constitutional and undiagnosed diseases in India.

Dr. Nikhil Sahajpal (Greenwood Genetic Center) demonstrated how OGM can strengthen existing constitutional genomic workflows by providing positional and structural insights that extend beyond microarray and sequencing alone. His cases showed important value in characterizing balanced translocations, clarifying complex cases and resolving cytogenetic and sequencing-negative cases. He also illustrated OGM and VIA's role as powerful research tools for investigating genetic contributors to rare disorders, enabling scientists to gain deeper insights into cases that remain unresolved with standard methods. Among Dr. Sahajpal's key statistical results was the success rate in detecting pathogenetic variants. He showed that in a cohort of 133 subjects with rare diseases, OGM identified pathogenic or likely pathogenic variants in 20% of subjects. Perhaps even more striking were his findings that in a cohort of 65 subjects that previously tested negative by chromosomal microarray analysis (CMA) and whole exome sequencing (WES), OGM identified pathogenic or likely pathogenic variants in 12% of subjects, while the success rate was 5% in subjects that previously tested negative with whole genome sequencing (WGS).

The session concluded with a live panel discussion and Q&A session with speakers and moderated by Bionano's Dr. Chaubey, Dr. Andy O'Shaughnessy, Dr. Dana Jaber, and Cami Asher. Panelists discussed best practices for OGM implementation, strategies for resolving complex constitutional disorders, complementing OGM with sequencing techniques, and future research directions in rare and developmental conditions.

"Day 3 of Symposium 2026 demonstrated how OGM is expanding the frontiers of constitutional genomics by enabling resolution of complex structural variants previously inaccessible using conventional methods," said Dr. Chaubey. "From autism spectrum disorders and recurrent pregnancy loss to rare diseases, OGM is driving discovery and insights across diverse genomic research applications that are very challenging to investigate with classical cytogenetics and molecular pathology methods."

Erik Holmlin, president and chief executive officer of Bionano, added, "Today's presentations took us into the world of genetic conditions, including rare genetic disorders. To call these conditions rare is a misnomer – they are collectively quite common, with millions of samples analyzed every year as researchers search for the genetic drivers of these diseases. Day 3 illustrated nicely how OGM can help break down the barriers in our understanding of constitutional disorders and is doing so with impressive geographic breadth. Our mission to transform the way the world sees the genome is a global

initiative and Symposium 2026 shows this aspect nicely."

Session recordings will be available on-demand via the Bionano YouTube channel. The live panel discussion and Q&A session will not be available on-demand.

Bionano Symposium 2026 continues with **Day 4: Genome Landscape Analysis with Bionano Products: Ionic, Saphyr, Stratys, and VIA** on February 26, 2026, from 7:00-10:00 AM PT, featuring impactful presentations and the announcement of the scientific poster competition! Attendees may also explore scientific posters available throughout the event on the virtual platform at the link below.

Symposium registration is free and open to all. To register, visit: www.bionano.com/symposium-2026

About Bionano Genomics

Bionano is a provider of genome analysis solutions that can enable researchers and clinicians to reveal answers to challenging questions in biology and medicine. The Company's mission is to transform the way the world sees the genome through optical genome mapping (OGM) solutions, diagnostic services and software. The Company offers OGM solutions for applications across basic, translational and clinical research. The Company also offers an industry-leading, platform-agnostic genome analysis software solution, and nucleic acid extraction and purification solutions using proprietary isotachophoresis (ITP) technology. Through its Lineagen, Inc. d/b/a Bionano Laboratories business, the Company also offers OGM-based diagnostic testing services.

For more information, visit www.bionano.com or www.bionanolaboratories.com.

Bionano's products are for research use only and not for use in diagnostic procedures.

Forward-Looking Statements of Bionano Genomics

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. All statements other than statements of historical facts contained in this press release, including statements regarding our future results of operations or financial condition, business strategy and plans, and objectives of management for future operations, are forward-looking statements. Words such as "ability," "anticipate," "believe," "can," "capacity," "could," "estimate," "expect," "intend," "may," "plan," "potential," "predict," "project," "should," "target," "will," or "would" 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 ability and utility of OGM to provide positional context for interpreting complex rearrangements; the ability and utility of VIA to facilitate interpretation of complex structural variants; the ability and utility of OGM to shift the paradigm for research in rare and unresolved disorders by bridging gaps between cytogenetics and molecular genomics and uncovering variants missed by traditional cytogenetics or sequencing; the ability and utility of OGM to be useful in the analysis of ASD samples and for OGM to be an "all-in-one" analytical tool for neurodevelopmental disorders; the ability and utility of OGM to play a role in reproductive health and provide insights missed by conventional cytogenetics; the ability and utility of OGM to improve genetic counseling and family planning; the ability and utility of OGM to resolve rare constitutional rearrangements; the ability and utility of OGM to uncover subtle alterations missed by conventional cytogenetics and associated with infertility and reproductive disorders; the ability and utility of OGM to strengthen existing constitutional genomic workflows by providing positional and structural insights that extend beyond microarray and sequencing alone; the ability and utility of OGM to expand the frontiers of constitutional genomics and enable resolution of complex structural variants previously inaccessible using conventional methods; the ability and utility of OGM to break down the barriers in our understanding of constitutional disorders; continued research, presentations and publications involving OGM, its utility compared to traditional cytogenetics and our technologies; and our ability to drive adoption of OGM and our technology solutions and any other statements that are not of historical fact. Each of these forward-looking statements involves risks and uncertainties. Accordingly, investors and prospective investors are cautioned not to place undue reliance on these forward-looking statements as they involve inherent risk and uncertainty (both general and specific) and should note that they are provided as a general guide only and should not be relied on as an indication or guarantee of future performance. 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 failure of OGM to provide positional context for interpreting complex rearrangements; the failure of VIA to facilitate interpretation of complex structural variants; the failure of OGM to shift the paradigm for research in rare and unresolved disorders by bridging gaps between cytogenetics and molecular genomics and uncovering variants missed by traditional cytogenetics or sequencing; the failure of OGM to be useful in the analysis of ASD samples and for OGM to be an "all-in-one" analytical tool for neurodevelopmental disorders; the failure of OGM to play a role in reproductive health and provide insights missed by conventional cytogenetics; the failure of OGM to improve genetic counseling and family planning; the failure of OGM to resolve rare constitutional rearrangements; the failure of OGM to uncover subtle alterations missed by conventional cytogenetics and associated with infertility and reproductive disorders; the failure of OGM to strengthen existing constitutional genomic workflows by providing positional and structural insights that extend beyond microarray and sequencing alone; the failure of OGM to expand the frontiers of constitutional genomics and enable resolution of complex structural variants previously inaccessible using conventional methods; the failure of OGM to break down the barriers in our understanding of constitutional disorders; our ability to obtain sufficient financing to fund our strategic plans and commercialization efforts and our ability to continue as a "going concern," which requires us to manage costs and obtain significant additional financing to fund our strategic plans and commercialization efforts; the risk that if we fail to obtain additional financing we may seek relief under applicable insolvency laws; the impact of adverse geopolitical and macroeconomic events and uncertain market conditions, including inflation, tariffs, and supply chain disruptions, on our business and the global economy; general market conditions; changes in the competitive landscape and the introduction of competitive technologies or improvements to existing technologies; changes in our strategic and commercial plans; the ability of medical and research institutions to obtain funding to support adoption or continued use of our technologies; study results that differ or contradict the results mentioned in this press release and at Day 3 of Symposium 2026; and the risks and uncertainties associated with our business and financial condition in general, including the risks and uncertainties including those described in our filings with the Securities and Exchange Commission ("SEC"), including, without limitation, our Annual Report on Form 10-K for the year ended December 31, 2024, our Quarterly Reports on Form 10-Q and in other filings subsequently made by us with the SEC. 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, except as may be required by law.

CONTACTS
Company Contact:

Erik Holmlin, CEO
Bionano Genomics, Inc.
+1 (858) 888-7610
eholmlin@bionano.com

Investor Relations:
Kelly Gura
Gilmartin Group
+1 (212) 229-6163
IR@bionano.com

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