



Bionano Genomics Announces Publication of a New Study Using OGM to Investigate Inversions that May Lead to Genetic Disorders

June 8, 2022

SAN DIEGO, June 08, 2022 (GLOBE NEWSWIRE) -- Bionano Genomics, Inc. (Nasdaq: BNGO), pioneer of optical genome mapping (OGM) solutions on the Saphyr[®] system and provider of NxClinical[™] software, the leading solution for visualization, interpretation and reporting of genomic data, today announced the publication of a multi-platform study using OGM in combination with other cytogenetic technologies as a comprehensive strategy to investigate inversions that may lead to genetic disorders.

This study, published in the journal *Cell*, analyzed inversions using various methods, including OGM. The study reported that 80% of the larger inversions that were detected were balanced and affected twice as many nucleotides overall as copy number variations (CNVs). The researchers noted that these inversions can be associated with rare genomic rearrangements found in pediatric autism, developmental delay, and epilepsy.

In the study, researchers analyzed 41 unrelated human samples representing 729 inversion sites for recurrent inversion formation using complementary genomic approaches, including single-cell template strand sequencing (Strand-seq), long-read sequencing, and OGM. Using this multi-platform method, researchers found 40 recurrent inversions that encompassed 0.6% of the genome, showing that recurrent inversions can be co-localized with genomic disorder regions.

Erik Holmlin, PhD, president and chief executive officer of Bionano commented, "The most studied SVs have been CNVs because they can be detected relatively easily by microarrays. This study opens the door to a host of exploration of inversions and illustrates that OGM has the potential to make large inversion detection and analysis as routine as CNV analysis."

This publication is available at: <https://pubmed.ncbi.nlm.nih.gov/35525246/>

About Bionano Genomics

Bionano Genomics 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 OGM solutions, diagnostic services and software. The Company offers OGM solutions for applications across basic, translational and clinical research. Through its Lineagen business, the Company also provides diagnostic testing for patients with clinical presentations consistent with autism spectrum disorder and other neurodevelopmental disabilities. Through its BioDiscovery business, the Company also offers an industry-leading, platform-agnostic software solution, which integrates next-generation sequencing and microarray data designed to provide analysis, visualization, interpretation and reporting of copy number variants, single-nucleotide variants and absence of heterozygosity across the genome in one consolidated view.

For more information, visit www.bionanogenomics.com, www.lineagen.com or www.biodiscovery.com

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. Words such as "may," "can," "potential," 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 and Saphyr[®] system to detect and analyze large inversions, the potential for OGM to become part of routine large inversion detection and analysis, and the correlation of large inversions with genetic disorders. 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 technologies or improvements to existing technologies; failure of future study results to support those demonstrated in the paper referenced in this press release; 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; 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.

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Source: Bionano Genomics