



Publication Shows Utility of OGM in Solid Tumor Research with Study on Detection of Complex Genomic Rearrangements in Prostate Cancer

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SAN DIEGO, Nov. 21, 2022 (GLOBE NEWSWIRE) -- Bionano Genomics, Inc. (Nasdaq: BNGO) today announced the publication of a study utilizing optical genome mapping (OGM) to detect structural variants (SVs) and balanced rearrangements relevant to prostate cancer (PCa) pathogenesis. OGM identified SVs in all samples, potentially improving the success rate for finding pathogenic variants and streamlining the detection process.

In the study, published in *Cancer Cell International*, researchers analyzed ten consecutive PCa samples to investigate OGM's ability to detect genomic aberrations and complex SVs which may be associated with aggressive disease course and resistance to androgen receptor-targeted therapies in solid tumor cancers. The PCa genome is characterized by frequently balanced rearrangements that affect multiple oncogenes and tumor suppressor genes. The study reported that OGM helped identify alterations, deletions and translocations which may cause or contribute to genomic instability in cancer cells. The study authors highlighted challenges associated with using traditional methods and cited OGM's robust detection of cryptic rearrangements with a high resolution as evidence of its potential application as a first-line method in solid tumor analysis.

"We have seen tremendous progress for the application of OGM in constitutional genetic disorders. Within oncology research, several prior publications have focused on blood or bone marrow analysis. This paper serves as a good demonstration of OGM's utility for solid tumor research. The study authors demonstrate that OGM can be more sensitive for detecting large structural variations and balanced rearrangements than traditional methods or whole genome sequencing. We believe this study provides a nice example of how OGM can aid a sequencing-based approach to solid tumor molecular assessment," commented Erik Holmlin, PhD, president and chief executive officer of Bionano Genomics.

This publication can be found [here](#).

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, Inc. d/b/a Bionano Laboratories 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.bionanolaboratories.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 "believe," "can," "may," "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 to detect SVs and balanced rearrangements relevant to PCa pathogenesis; the ability and utility of OGM to detect cryptic rearrangements when compared to traditional methods; the ability and utility of OGM to complement and aid sequence-based solid tumor molecular assessment. 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: global and macroeconomic events, such as the impact of the COVID-19 pandemic and the ongoing Ukraine-Russian conflict and related sanctions, 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 OGM to achieve useful complementarity and aid sequence-based solid tumor molecular assessment; failure of OGM to detect SVs and balanced rearrangements relevant to PCa pathogenesis; failure of OGM to detect cryptic rearrangements when compared to traditional methods; future study results contradicting the results reported in the publication referenced above; 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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