Multiple Studies Highlighting OGM Utility For Analysis of Cancer Biomarker Chromoanagenesis Published in Dedicated Issue of Methods in Molecular Biology

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SAN DIEGO, Sept. 16, 2025 (GLOBE NEWSWIRE) -- Bionano Genomics, Inc. (Nasdaq: BNGO) today announced that an issue of the book series *Methods in Molecular Biology* dedicated to studies of the catastrophic genome rearrangement known as chromoanagenesis was published with multiple studies highlighting the advantages of optical genome mapping (OGM) in chromoanagenesis research.

According to research, chromoanagenesis refers to a catastrophic genomic event frequently associated with highly complex karyotypes, extensive clonal heterogeneity, treatment resistance, and poor prognosis. It includes events such as chromothripsis, chromoplexy, and chromoanasynthesis, all of which play a significant role in cancer development. Detecting chromoanagenesis has been challenging with traditional cytogenetic and sequencing methods because of the size, heterogeneity, and complexity of these rearrangements. OGM can provide a genome-wide view of structural variants at high resolution, enabling precise identification and characterization of the genome variation underpinning chromoanagenesis.

The first study to use OGM in studies of chromoanagenesis centered on acute myelogenous leukemia (AML) and was published in January 2025. The four chapters published in this book series highlight the use of OGM in chromoanagenesis research and the expansion into new cancer types such as multiple myeloma (MM) and chronic lymphocytic leukemia (CLL), as well as the proliferation of novel workflows such as dam assisted fluorescent tagging of chromatin accessibility, which is a hybrid method for highly detailed spatial and structural analysis of chromatin assemblies.

“Chromoanagenesis appears to be a key driver of genomic complexity in hematologic malignancies, with the potential to signal likelihood of poor prognosis and the possibility of treatment resistant disease,” said Erik Holmlin, PhD, president and CEO of Bionano. “OGM can provide the resolution necessary to detect and resolve these events, helping researchers explore their impact on disease biology and therefore devise potential management strategies, including therapeutic intervention. We are impressed to see the growth in studies dedicated to this area, suggesting a broad new area of application of OGM across multiple disease indications.”

The full volume is available online: https://link.springer.com/book/10.1007/978-1-0716-4750-9

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 “anticipate,” “believe,” “can,” “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 the OGM to prove useful in the analysis of chromoanagenesis; the ability and utility of OGM to overcome the challenges of traditional cytogenetics and sequencing for analyzing chromoanagenesis; the ability of OGM to provide a genome-wide view of structural variants at high resolution, enabling precise identification and characterization of the genome variation underpinning chromoanagenesis; the ability of OGM to resolve chromoanagenesis; 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 prove useful in the analysis of chromoanagenesis; the failure of OGM to overcome the challenges of traditional cytogenetics and sequencing for analyzing chromoanagenesis; the failure of OGM to provide a genome-wide view of structural variants at high resolution, enabling precise identification and characterization of the genome variation underpinning chromoanagenesis; the failure of to resolve chromoanagenesis ; the failure of OGM to outperform legacy cytogenomic methods; future publications that contradict the findings of the publication referenced in this press release; 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, such as the ongoing conflicts between Ukraine and Russia and Israel and Gaza 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; the risk that we are not able to complete a strategic transaction that would increase stakeholder value; 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.

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