

Bionano Genomics Announces Major Updates to Its Solve™ and Access™ Data Solutions Adding Significant New Variant Detection, Analysis and Reporting Capabilities for Optical Genome Mapping on the Saphyr® System

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SAN DIEGO, Nov. 03, 2021 (GLOBE NEWSWIRE) -- Bionano Genomics, Inc. (BNGO), developer of the Saphyr® system that uses optical genome mapping (OGM) for the detection and analysis of structural variants (SVs), today announced the release of Bionano Solve™ version 3.7 and Bionano Access™ version 1.7 as available data solution upgrades for Saphyr systems installed in laboratories worldwide. Included in these updates are significant improvements in variant detection, as well as workflow simplifications and other benefits designed to support clinical research in inherited genetic diseases and cancer. All new Saphyr system installations will include these versions.

New OGM capabilities include the means to detect more clinically-relevant variants such as absence of heterozygosity (AOH) and allelic imbalance, the first two classes of variations that are typically considered as sequence rather than structural variants. The updates will also enable users to visualize chromosomal AOH across the genome similarly to single nucleotide polymorphism (SNP) microarrays. In addition, OGM users will have the ability to detect uniparental isodisomy UPD, regions identical by descent (IBD), triploidy and improved characterization of mosaic SVs through variant allele fraction (VAF) plots.

Also as part of this release, the family of EnFocus™ targeted analysis panels now includes one for Fragile X, a repeat expansion disorder. EnFocus Fragile X is an analytical routine that automates the process of sizing the Fragile X repeat with high accuracy, precision and sensitivity, thereby reducing the time to results for researchers.

Bionano has streamlined the analytical workflow tied to OGM through this software release. The new workflow enables all SVs detected by Solve and analyzed with Access to be named and classified using standard terminology according to the 2020 International System for Human Cytogenomic Nomenclature (ISCN). This new classification is expected to simplify the reporting and interpretation of research findings, making it easier to compare information across other databases.

"These ongoing improvements in the performance of our software for detecting SVs, as well as the tools for interpreting and reporting calls, continue to impress me," said Erik Holmlin, PhD, CEO of Bionano Genomics. "We believe this update is significant because of the AOH and allelic imbalance functionality we are introducing. With our acquisition of BioDiscovery now complete, we can begin work to integrate our variant detection technology with NxClinical's visualization, interpretation and reporting capabilities to offer a potentially outstanding window through which researchers can obtain the data to drive their science."

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. 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," "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 expected benefits and significance of the Solve and Access upgrades; and our work to integrate our variant detection technology with NxClinical's visualization, interpretation and reporting capabilities, including the products developed through such integration. 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: our ability to integrate BioDiscovery's capabilities with our technology; issues related to the release of new products; 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; our hiring efforts may not achieve the anticipated results; 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; 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, 2020 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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