Bionano Genomics Announces Peer-Reviewed Publication of NeuroSCORE Model to Predict and Prioritize Human Genes Contributing to Neurodevelopmental Disease

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SAN DIEGO, April 29, 2022 (GLOBE NEWSWIRE) -- Bionano Genomics, Inc. (Nasdaq: BNGO), pioneer of optical genome mapping (OGM) solutions on the Saphyr® system and provider of N_xClinical™ software, the leading solution for visualization, interpretation and reporting of genomic data, today announced a peer-reviewed publication in *Nature* detailing the development of NeuroSCORE, a software-based method of analyzing complex genetic conditions that predicts and prioritizes human genes contributing to neurodevelopmental disease (NDD), including autism spectrum disorder (ASD), epilepsy and birth defects of the brain.

The Neurogenic Systematic Correlation of Omics-Related Evidence, or NeuroSCORE, was developed at Bionano, with a goal of identifying over 1,000 new genes that impact brain development, thereby hoping to improve research into candidate disease genes, diagnostics and, eventually, therapeutics. Using a multi-phase approach, more than 18,000 genes were identified and scored based on known phenotype data, gene expression models, mouse models, and case-control human samples. The paper was previously published as a pre-print and is now published in *Nature* after having gone through the peer review process. In the paper, researchers sought to narrow the pool of uncharacterized genes to those most important in identification of NDD.

“We were pleased the Nature family of journals recognized the significance of this advancement in data analysis. We believe that our proprietary NeuroSCORE model will assist in more efficiently and accurately interpreting variants of unknown significance and identifying previously uncharacterized neurodevelopmental disease. We believe this model may also assist in the discovery of novel genes not previously associated with central nervous system (CNS) diseases, research that may improve diagnostics for individuals with genetic causes of neurological conditions. The utility of this type of software has the potential to be broad ranging, including known disorders such as ASD and other NDDs, but also as part of resolving rare undiagnosed genetic disorders, or RUGDs. We feel a strong sense of accomplishment in creating a tool to help guide research in NDDs and that may assist clinicians in guiding interventions,” commented Erik Holmlin, PhD, president and chief executive officer of Bionano Genomics.

The paper is available at:

https://www.nature.com/articles/s41598-022-08938-y#Sec19

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,” “will,” “expect,” “believe,” 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 usefulness of the NeuroSCORE model to predict or prioritize human genes contributing to neurodevelopmental disease (NDD), including autism spectrum disorder (ASD), epilepsy and birth defects of the brain. 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 in existing technologies; failure of future study results to support those demonstrated during the presentations 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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