

Bionano Chief Medical Officer Presents Vision for Optical Genome Mapping as a First Line Clinical Tool for Cancer and Genetic Disease Testing at Festival of Genomics & Biodata

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SAN DIEGO, Jan. 27, 2021 (GLOBE NEWSWIRE) -- Bionano Genomics, Inc. (Nasdaq: BNGO) announced a presentation by Chief Medical Officer Dr. Alka Chaubey at The Festival of Genomics & Biodata where she presented evidence supporting her vision of Optical Genome Mapping (OGM) with Saphyr as a first line test in genetic disease and cancer. As a first line test, OGM would be the first test applied to diagnose the patient and to determine their prognosis and management strategy. Supported by a large body of data provided by Bionano customers and internal and external studies, she demonstrated that OGM detects all classes of structural variants (SVs) including actionable variants in cancer defined by the World Health Organization (WHO) and National Comprehensive Cancer Network (NCCN), most of which next-generation sequencing (NGS) fails to detect and currently need a combination of multiple cytogenetic methods for clinical analysis.

The Festival of Genomics & Biodata is a global virtual event with more than 5,000 attendees, taking place January 26-29, 2021. On day one of the event, Dr. Chaubey presented a large number of genetic disease and cancer cases where patient samples were analyzed with OGM and disease-causing structural variants were identified.

With respect to genetic disease, she discussed how OGM is the only cytogenomic method that can detect all SV classes, unlike karyotyping, FISH and CMA which need to be run in parallel or sequentially and the data combined. In addition, she showed evidence that OGM can correctly identify microdeletion and microduplication syndromes like DiGeorge Syndrome, muscular dystrophies like Duchenne's and FSHD1, and repeat expansion disorders like Fragile X Syndrome, all of which require a specialized test with standard of care methods but are automatically analyzed as part of the Saphyr's whole genome analysis.

With respect to cancer, Dr. Chaubey presented cases of leukemias and solid tumor demonstrating OGM's ability to precisely define breakpoints and fusion partners of genomic rearrangements, and that OGM can detect all actionable SVs defined by the WHO and NCCN, without the need for tiered testing and confirmatory follow up tests. She concluded that OGM is a next generation cytogenomics tool in both genetic disease and cancer, and that the continued adoption of OGM for clinical use as laboratory developed tests (LDT) is common practice for diagnostic technologies entering the clinic.

Erik Holmlin, PhD, CEO of Bionano Genomics, commented: "Dr. Alka Chaubey joined Bionano as our first Chief Medical Officer based on her belief in Saphyr's potential to revolutionize cytogenomic testing with a single assay that provides actionable results faster. Today's presentation at the Festival of Genomics & Biodata supported that belief with an overwhelming amount of evidence generated by Bionano users around the world. As our customers increase the pace of adoption of Saphyr and more LDTs are developed, it is abundantly clear that Saphyr is a key part of the future of cytogenomics and is here to stay."

A recording of the presentation by Dr. Chaubey can be viewed on bionanogenomics.com and at <http://bit.ly/3pqZSdq>

About Bionano Genomics

Bionano is a genome analysis company providing tools and services based on its Saphyr system to scientists and clinicians conducting genetic research and patient testing and providing diagnostic testing for those with autism spectrum disorder (ASD) and other neurodevelopmental disabilities through its Lineagen business. Bionano's Saphyr system is a research use only platform for ultra-sensitive and ultra-specific structural variation detection that enables researchers and clinicians to accelerate the search for new diagnostics and therapeutic targets and to streamline the study of changes in chromosomes, which is known as cytogenetics. The Saphyr system is comprised of an instrument, chip consumables, reagents and a suite of data analysis tools. Bionano provides genome analysis services to provide access to data generated by the Saphyr system for researchers who prefer not to adopt the Saphyr system in their labs. Lineagen has been providing genetic testing services to families and their healthcare providers for over nine years and has performed over 65,000 tests for those with neurodevelopmental concerns. For more information, visit www.bionanogenomics.com or www.lineagen.com.

Forward-Looking Statements

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: Saphyr's capabilities in comparison to and in conjunction with other genome analysis technologies; the potential for Saphyr to reduce or eliminate sequential and confirmatory assays and expedite patient treatment; our expectations regarding the adoption of Saphyr as a clinical tool to replace traditional standard of care cytogenomic testing methods; and the execution of Bionano's strategy. 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 products; 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, 2019 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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