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Bionano's Optical Genome Mapping Extensively Featured at the 2021 European Cytogenomics Conference as a Superior Solution for Genomic Analysis in Leukemia and Genetic Disease Compared to Traditional Techniques

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SAN DIEGO, July 13, 2021 (GLOBE NEWSWIRE) -- Bionano Genomics, Inc. (Nasdaq: BNGO) today announced that optical genome mapping (OGM) was extensively featured across a wide range of talks and posters at the 2021 European Cytogenomics Conference (ECA) as a superior solution for genomic analysis in leukemia and genetic disease compared to traditional techniques.

At the ECA, there were nine talks and posters featuring OGM presented online from July 3 - 5, 2021 during this virtual event. The conference featured five presentations and four posters from Bionano Saphyr system customers spanning clinical and discovery research applications in hematological malignancies and genetic disease. OGM delivered by the Saphyr system detects all classes of structural variation in a one simple assay and analysis workflow. Below is a table highlighting the presentations that featured Bionano's OGM data and a summary of the key benefits expressed by the authors.

| Presenter | Affiliation | Bionano's OGM Benefits Presented |
|-----------------------------|---|---|
| Dr. Elena García Sánchez | Hospital Infantil Universitario Niño Jesús, Madrid | 100% concordance vs. traditional assay techniques for pediatric leukemias 60% of these cases revealed new clinically relevant information with OGM Detected variants important for prognosis stratification and treatment Identified new fusion genes with Bionano's OGM for pediatric leukemias |
| Dr. Anna Puiggros | Hospital del Mar, Barcelona | OGM successfully predicted the most severe prognosis for CLL OGM provided additional insights in 45% of cases Incremental findings for OGM were all orthogonally confirmed Improved prognostic performance relative to standard techniques |
| Dr. Barbara Dewaele | University Hospitals Leuven | Improvement to patient treatment and prognostic accuracy for ALL 100% concordorance relative to standard of care w/ no false positives 75% reduction in turnaround time (4 days to 1 day) vs. traditional techiques 50% reduction in cost for OGM relative to standard techniques |
| Dr. Catherine Menten | CHU de Liège | Identified correct structure of complex rearrangment in AML OGM was the only technique capable of this full characterization Confirmed suspected KMT2A-MLLT10 fusion gene |
| Céline Lété | CHU de Liège | OGM used to understand a complex rearrangement in AML Identified the correct structure of a highly-complex rearrangement Successfully confirmed the suspected KMT2A-MLLT10 fusion |
| Romain Nicolle | Hôpital Necker-enfants-malades, Paris | A new recognizable genetic disorder characterized by OGM Fully characterized complex rearrangements involving segmental dups OGM provided insights into the underlying mechanism of formation |
| Karolina Bilska | MVZ Martinsried, Munich | OGM identified a rare, three-way balanced translocation Important clinically-relevant chromosomal aberration leading to infertility |
| Claudia Rita Catacchio | Washington School of Medicine, Seattle | Assembled a high-quality reference genome of the Bonobo using OGM Enabled a refined analysis of hominid evolution |

| Lisanne Ve | rvoort, | KU Leuven |
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- OGM successfully characterized the repeat structure of 22q11.2 locus
- Closed gaps in genome assemblies to provide clearer picture

"This year, the ECA had the greatest number of presentations featuring Bionano's data to date, which we believe reflects the increased adoption of Saphyr throughout Europe and the wide range of clinical research applications benefitting from OGM," commented Erik Holmlin, PhD, CEO of Bionano Genomics. "We believe these presentations are just the starting point for continued expansion into clinical research applications for hematological malignancies and genetic disease where OGM has the potential to deliver significant advantages to clinicians relative to the current standard of care."

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. Forwardlooking statements include statements regarding our intentions, beliefs, projections, outlook, analyses or current expectations concerning, among other things: the significance of Bionano OGM data presented in the talks and posters discussed in this press release; Bionano OGM's superiority in genomic analysis in leukemia and genetic disease as compared to traditional techniques; our efforts and expectations regarding adoption of Saphyr in clinical research settings through Europe; the benefits of the Saphyr system relative to traditional cytogenetic testing methods; our assessments regarding market opportunities; 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: Indalo Bio's ability to successfully develop assays on the Saphyr system and/or make its technology widely available in Africa; 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, 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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