Bionano Genomics Announces Launch of Its Rare Undiagnosed Genetic Disease (RUGD) Strategic Initiative Aimed at the 350 Million People Globally Living with a Rare Disease

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- *Rare diseases affect more than 350 million people globally*
- *It is estimated that 1 in 15 people globally are affected by a rare disease*
- *Estimates are that 25 million Americans and 30 million in Europe are living with a rare disease*
- *More than 7,000 rare diseases have been identified to date*
- *Approximately 80% of rare disease are believed to be caused by genetic factors*
- *It takes on average 7 seven years, with standard techniques, to obtain an accurate diagnosis*
- *Even after all these standard techniques, more than 50% of patients with rare diseases remain go undiagnosed*

SAN DIEGO, Feb. 28, 2022 (GLOBE NEWSWIRE) -- Bionano Genomics, Inc. (Nasdaq: BNGO), pioneer of optical genome mapping (OGM) solutions on the Saphyr® system and provider of N_xClinical™, the leading software solution for visualization, interpretation and reporting of genomic data, today announced the launch of its rare undiagnosed genetic disease (RUGD) strategic initiative in recognition of Rare Disease Day.

There are many different causes of rare disease, but most are genetic and believed to be directly caused by changes in genes or chromosomes. In some cases, genetic changes that cause disease are passed from one generation to the next. In other cases, they occur randomly in a person who is the first in their family to be diagnosed. Karyotyping, fluorescent in situ hybridization (FISH), chromosomal microarray (CMA), targeted next-generation sequencing (NGS) and whole genome sequencing (WGS) are broadly used during the diagnostic odysseys associated with rare diseases and yet more than 50% of patients on average are left undiagnosed. The patients are left on a frustrating and stressful RUGD odysseys without answers.

A major part of the solution is genome testing and research. Bionano offers a suite of solutions with OGM systems, genome analysis software and testing and laboratory services that may provide valuable answers for RUGD research. Today, Bionano is launching its RUGD initiative in an effort to help elevate the level of focus and dedication in translational and clinical research. Bionano's RUGD initiative will include Bionano's suite of product offerings, support for educational awareness, working towards development of research grants in this area and supporting professional societies with a shared mission of improving RUGD patient care and management, such as the American College of Medical Genetics and Genomics (ACMG).

As part of Bionano's RUGD initiative, Bionano has committed to provide three years of financial support for the ACMG Foundation for Genetic and Genomic Medicine (ACMGF) and its Next Generation Fellowship & Residency Training Awards Program in genetics and genomics. The Next Generation Fellowship & Residency Training Awards Program Attracting talented medical professionals to the genetics and genomics workforce is a core objective of the ACMGFis focused on expanding the clinician workforce pipeline by attracting excellent physicians and PhD laboratorians to genetic and genomic medicine. Bionano's three years of financial support in this program is expected to play a significant role in the ACMGF's work to add more experts to the field of RUGD research and expand the reach of genetic and genomic medicine.

"In recognition of Rare Disease Day, we are proud to announce our commitment to be a part of the solution with the announcement of our elevated commitment to delivering answers with our genome analysis solutions and the launch of our company-wide RUGD initiative," commented Erik Holmlin, PhD, president and chief executive officer of Bionano. "OGM has been delivered meaningful answers across the genome, in some cases where standard cytogenetic techniques were unable to do so, and we are dedicated to ending these long painful odysseys through our product solutions accessible for translational and clinical research globally and other components of our RUGD initiative. We look forward to supporting the ACMGF and contributing to the addition of more experts in the field of RUGD research and expanding the reach of genetic and genomic medicine."

For more information on Rare Disease Day and Bionano's commitment in RUGD research please visit: https://bionanogenomics.com/blog/rare-diseases-are-not-rare-and-bionano-is-committed-to-making-a-difference/

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 bionanogenomics.com, lineagen.com or 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," "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: ability of our products and services in providing valuable answers for RUGD research; the impact of our RUGD initiative on elevating the level of focus and dedication in translational and clinical research; our plans for executing on our RUGD initiative, including financial support for the ACMGF; and the impact of our support for the ACMGF on the field of RUGD research. 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; the ACMGF's use of our funds and support; changes in our support for RUGD research; 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, 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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