



Bionano Announces Launch of Next-Generation Versions of its Reagent Kits and Chip Consumable, Along with Updates to its Instrument Control and Bionano Access Software for the Optical Genome Mapping Workflow

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- **Bionano Prep SP-G2 (SP-G2) kit** offers higher gDNA quality, improved ease-of-use and increased DNA throughput
- **Bionano Prep Direct Label and Stain-G2 (DLS-G2) kit** offers increased reagent stability and labeling efficiency resulting in significantly faster sample to results workflow
- **Saphyr Chip® G3.3, instrument control software (ICS) version 5.3 and Bionano Access™ software version 1.7.2** offer enhanced evaporation control and workflow robustness enabling for more high coverage samples to be run per week

SAN DIEGO, Jan. 23, 2023 (GLOBE NEWSWIRE) -- Bionano Genomics, Inc. (BNGO today announced the launch of multiple new products and advancements for its optical genome mapping (OGM) workflow that offer enhanced robustness in sample preparation, decreased turnaround time for DNA labeling and imaging, and improvements in throughput and quality metrics. The new versions of Bionano's sample prep kits, chips and instrument software address customer feedback and can improve the performance in routine higher volume genome analysis applications.

Bionano's sample prep kits are used to extract and label ultra-high molecular weight (UHMW) DNA for use on the Saphyr® system. These kits are optimized for performing Bionano OGM applications on a variety of sample types. Generation 2 kits will support blood samples, cell lines, and bone marrow aspirates, with versions for tissue and tumor samples expected later in 2023. The Bionano Prep SP-G2 (SP-G2) and Bionano Prep Direct Label and Stain (DLS-G2) kits have also increased in size from 10-reaction to 12-reaction kits, an upgrade that better matches the company's chip consumables.

The SP-G2 kit enhances UHMW DNA isolation and enables higher sample success rates, fewer user errors and more data generated per run. One of the main improvements to sample preparation is the potential to isolate DNA of higher quality, especially for marginal samples. The new protocol also can eliminate time and process constraints, making the lysis step more user-friendly and better optimized for runs with different sample types, which allows users to batch up to six samples simultaneously. These improvements in chemistry can ultimately result in increased DNA throughput for more data generated per sample run. In addition, a derivative of the SP-G2 kit supports Hamilton's Long String Vantage automated UHMW DNA isolation.

Bionano's DLS-G2 kit enables labeling to be completed in as little as five hours for same-day loading of labeled DNA on the Saphyr® instrument. This improved chemistry can enable an overall reduction in turnaround (or sample to answer) time and make it possible to get high depth answers for cancer samples in as little as three days. Bionano has increased reagent stability from nine months to one year for the DLS-G2 kit, to be consistent with the SP-G2 kit, which can result in less reagent wastage and more utility over a longer period of time.

The Saphyr Chip® G3.3, a new version of the instrument control software (ICS v5.3) and a new version of Bionano Access™ (v.1.7.2), enable improved throughput and success rates when two Saphyr Chips are loaded in parallel, allowing three to six more samples to be processed per work week. These throughput improvements result from a reduction in sample evaporation and enhance the reliability of sample loading and performance on the Saphyr instrument. Higher throughput also results in better first-pass yields and may eliminate the risk of sample depletion when working with complex, longer scan-time samples, like those in cancer research or cell bioprocessing. ICS v5.3 support for the Saphyr Chip G3.3 improves consistency of throughput across runs as well as alignment robustness.

Erik Holmlin, PhD, president and chief executive officer of Bionano, commented, "With these product launches we are significantly expanding the genome analysis capabilities available to the clinical and translational research communities. We look forward to seeing customers benefit from these solutions in the coming months, which we believe can reduce time-to-results and make OGM performance even better. We believe these improvements can enable greater detection of structural variants of all types associated with genetic diseases and complex disorders like cancer."

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, Inc. d/b/a Bionano Laboratories 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.bionanolaboratories.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 "believe," "can," "may," "potential," "will" 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 potential of the SP-G2 and DLS-G2 kits to make improvements to sample OGM preparation and result in the isolation and preparation of DNA with higher size and quality, and improve sample success rates; the ability of ICS v5.3 and the Saphyr Chip G3.3 to improve consistency of throughput across runs as well as alignment robustness; the ability of the Saphyr Chip G3.3 to prevent sample evaporation and enhance the reliability of sample loading and performance on the Saphyr instrument, and result in higher first-pass yields or eliminate the risk of sample depletion when working with complex, longer scan-time samples; and the ability of OGM to accurately detect genetic disorders, including structural variants, copy number variants, repeat expansions greater than 500bp and Fragile X syndrome, and, as a single technology, to result in a workflow that is cost-effective, highly sensitive and has a faster time to results than traditional cytogenetic methods. 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 geopolitical and macroeconomic developments, such as the ongoing Ukraine-Russian conflict, and related sanctions, and the COVID-19 pandemic, on our business and the global economy; the failure of the SP-G2 and DLS-G2 kits to make improvements to sample OGM preparation and result in the isolation and preparation of DNA with higher size and quality, and improve sample success rates; the failure of ICS v5.3 and the Saphyr Chip G3.3 to improve consistency of throughput across runs as well as alignment robustness; the failure of the Saphyr Chip G3.3 to prevent sample evaporation and enhance the reliability of sample loading and performance on the Saphyr instrument, and result in higher first-pass yields or eliminate the risk of sample depletion when working with complex, longer scan-time samples; general market conditions; changes in the competitive landscape and the introduction of competitive technologies or improvements to existing technologies; 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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