BioNano Genomics Launches Enhanced Genome Mapping Coverage Features with New Software Tools

Availability of a new enzyme from New England BioLabs Inc. further expands BioNano genome mapping capabilities

SAN DIEGO, CA – May 4, 2016 – BioNano Genomics, the leader in physical genome mapping, today announced updates regarding expansions of its product offerings and capabilities.

Launching Enhanced Mapping Capability

BioNano announced the launch of a new version of its IrysView® next-generation mapping (NGM) software (Version 2.4) which further improves the contiguity of genome assemblies of physical genome maps. This feature allows researchers to stitch together two physical genomic maps to cover a more complete area of the genome allowing for an even broader discovery of Structural Variations.

Mark Borodkin, Vice President of Systems Development at BioNano Genomics, remarked, "In a recent article published by bioRxiv, titled 'Third-generation sequencing and the future of genomics,' the authors acknowledge the important role that NGM plays in genomic analysis and name BioNano's Irys System 'one of the most successful third-generation mapping systems available.' With this software update, we are further advancing our NGM capabilities to produce the longest genome information available in the industry. This higher level of contiguity improves completeness, correctness, orientation and resolution of the genome as well as increases the specificity and sensitivity of structural variation identification."

Introducing a New Enzyme

To exploit this new Irysview® mapping software feature, researchers need to select different enzymes to barcode, or tag, the genome at specific locations. The availability of the new enzyme Nb.BssSI by New England Biolabs, Inc. (NEB®), expands the number of genomes that can be integrated by NGM and complements the existing portfolio of enzymes, thereby providing an additional, independent means to optimize the mapping and analysis of genomes. For analysis of human genomes, BioNano currently recommends use of NEB's Nt.BspQI to nick DNA prior to labeling. The addition of Nb.BssSI enables the labeling of DNA at a second specific site within a genome, providing greater scaffold contiguity, completeness and correctness. The new enzyme will be available from NEB on May 9th.

Ted Davis, Director of Applications and Product Development at NEB, added "Nb.BssSI is the most recent enzyme that we have developed for BioNano. It is rewarding to see how our applied research is enabling the development of innovative new life science and diagnostic technologies such as the Irys System."

About BioNano Genomics

BioNano Genomics, Inc., the leader in next-generation mapping (NGM), provides customers with genome analysis tools that advance human, plant, and animal genomics and accelerate the development of clinical diagnostics. The Company's Irys® System uses NanoChannel arrays integrated within the IrysChip® to image genomes at the single-molecule level with average single-molecule lengths of about 350,000 base pairs, which leads the industry. The long-range genomic information obtained with the Irys System helps

decipher large, complex DNA repeats, which are the primary cause of inaccurate and incomplete genome assembly.

On its own, next-generation mapping with the Irys System enables detection of structural variants, many of which have been shown to be associated with human disease as well as complex traits in plants and animals. As a companion to next-generation sequencing, next-generation mapping with the Irys System integrates with sequence assemblies to create contiguous hybrid scaffolds that reveal the highly-informative native structure of the chromosome.

Only BioNano Genomics provides long-range genomic information with the cost-efficiency and throughput to keep up with advances in next-generation sequencing.

The Irys System has been adopted by a growing number of leading institutions around the world, including: National Cancer Institute (NCI), National Institutes of Health (NIH), Wellcome Trust Sanger Institute, Broad Institute of MIT and Harvard, BGI, Garvan Institute, Salk Institute, and McDonnell Genome Institute of Washington University. Investors in the Company include Battelle Ventures, Domain Associates, Legend Capital, Novartis Venture Fund, Federated Kaufmann, Monashee Investment Management, and Gund Investment Corporation.

For more information, please visit us at www.BioNanoGenomics.com.

About New England Biolabs

Established in the mid 1970's, New England Biolabs, Inc. (NEB) is the industry leader in the discovery and production of enzymes for molecular biology applications and now offers the largest selection of recombinant and native enzymes for genomic research. NEB continues to expand its product offerings into areas related to PCR, gene expression, sample preparation for next generation sequencing, synthetic biology, glycobiology, epigenetics and RNA analysis. Additionally, NEB is focused on strengthening alliances that enable new technologies to reach key market sectors, including molecular diagnostics development. New England Biolabs is a privately held company, headquartered in Ipswich, MA, and has extensive worldwide distribution through a network of exclusive distributors, agents and seven subsidiaries located in Canada, China, France, Germany, Japan, Singapore and the UK. For more information about New England Biolabs visit www.neb.com.

Contact

Kirsten Thomas
The Ruth Group
kthomas@theruthgroup.com
(508) 280-6592