DNAnexus and BioNano Genomics Collaborate to Expand Access to Next-Generation Mapping

Cloud Platform Facilitates and Speeds High-Quality Whole Genome Mapping; Results Presented at 2015 American Society of Human Genetics Annual Meeting

MOUNTAIN VIEW and SAN DIEGO, Calif. – October 5, 2015 – DNAnexus, Inc., the leader in cloud-based genome informatics and data management, and BioNano Genomics, Inc., the leader in physical genome mapping, today jointly announce that the companies have entered into a collaboration that offers access to BioNano's genome analysis algorithms and pipeline (IrysSolve®) on the DNAnexus Platform. IrysSolve® is designed to provide researchers with the capability of performing comprehensive analysis of the whole genome, with the computational power and scalability of the DNAnexus Cloud Genomics Platform.

DNAnexus provides a secure and compliant cloud environment where researchers can run high-speed, high-throughput, parallel analyses in a rapid and cost-efficient manner. The flexibility of the DNAnexus Platform supports multiple data types including long and short-read sequencing and next-generation mapping formats. Through this collaboration, BioNano offers a pre-configured, full-scale version of the BioNano Genomics computational pipeline, including applications for assembly, hybrid scaffolding, and structural variation calling. This integrated solution provides the ability for enterprises of any size to run IrysSolve® from anywhere in the world, and the ability to collaborate securely and share data efficiently in a centralized and controlled environment.

The McDonnell Genome Institute at Washington University is one of the first institutions to employ the Irys® System to improve the quality of the human reference genome, the gold standard against which new sequencing projects are compared. "We are using whole genome BioNano mapping data to confirm the accuracy of whole genome assemblies, and to inform annotation and structural variation analysis," said Tina Graves-Lindsay, Leader of the Reference Genomes Group at the McDonnell Genome Institute at Washington University St. Louis. "DNAnexus has eased the process of performing whole genome mapping through BioNano's Irys® System with a turnkey solution."

"We are very excited to join technologies with DNAnexus, to provide researchers with fast and cost-effective access to the whole genome analysis computational power they need to reach their discoveries," said Erik Holmlin, Ph.D., President and Chief Executive Officer of BioNano Genomics. "We believe with these tools, researchers will spend less time waiting for analyses and more time focusing on results."

"We are pleased to support BioNano to further improve single-molecule genome sequencing and mapping technology," said Richard Daly, CEO of DNAnexus. "We are seeing a growing need for clearer knowledge of structural variations in the clinic to help with disease diagnosis. DNAnexus provides a global network, democratizing this technology and making it accessible to labs of all sizes anywhere in the world."

DNAnexus will host a lunchtime talk this Thursday, October 8 at the 2015 American Society of Human Genetics (ASHG) Annual Meeting in Baltimore, MD, where Tina Graves-Lindsay will be presenting her research.

> **Title:** Genomics and Informatics for the Next Five Years - Challenges, Solutions, and Opportunities
>
> **Date / Time:** Thursday, October 8th, 1:00 – 2:30 p.m. ET
>
> **Location:** Baltimore Convention Center, Level 3, Room 345

About BioNano Genomics

BioNano Genomics, Inc., the leader in next-generation mapping, 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 spans 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, which are increasingly 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 DNAnexus

DNAnexus combines expertise in cloud computing and bioinformatics to create the global network for genomic medicine. DNAnexus provides security, scalability and collaboration for enterprises and organizations that are pursuing genomic-based approaches to health in order to accelerate medical discovery. DNAnexus is supporting customers around the world that are tackling some of the most challenging and exciting opportunities in human health. For more information, please visit: https://dnanexus.com and follow us at @DNAnexus.

Press Contacts
Tim Smith for DNAnexus

Element Public Relations
415-350-3019
tsmith@elementpr.com

Press Contacts

Kirsten Thomas for BioNano Genomics
The Ruth Group
508-280-6592
kthomas@theruthgroup.com