



Twist Bioscience Launches Exome and Custom Target Enrichment Solutions for Next-Generation Sequencing

February 15, 2018

SAN FRANCISCO, Calif. – February 14, 2018 – Twist Bioscience Corporation, a company enabling customers to succeed through its offering of high-quality synthetic DNA, today announced the commercial availability of several new products to enhance next-generation sequencing including its Twist Human Core Exome Kit, an innovative and comprehensive library preparation and target enrichment kit, and its Custom Panels offering, that can be tailored to individual requests.

The new exome and custom target enrichment solutions are designed to provide improved performance, versatility and maximum capture efficiency to reduce the overall cost of NGS. Initial customer experiences as well as the scientific validation of the product suite will be presented at the Advances in Genome Biology and Technology (AGBT) meeting in Orlando, FL February 12 through 15, 2018.

"This product line demonstrates the true platform nature of our technology, bringing the power of DNA writing to amplify and enrich the process of DNA reading," said Emily M. Leproust, Ph.D., CEO of Twist Bioscience. "By leveraging our DNA synthesis technology to deliver precision at scale, we are excited to introduce a new line of next-generation sequencing tools focused on exome and custom capture. We believe these steps in the sequencing workflow are pivotal to effective genome analysis but have traditionally been less than efficient until now."

Twist Bioscience will present the full scientific rationale for the new product line in a poster entitled "Improving the quality, cost, and flexibility of target enrichment and whole exome sequencing" during the poster session at AGBT.

In addition to a keynote from Dr. Leproust, Early Access customers from the United States Army Medical Research Institute of Infectious Diseases (USAMRIID) - Center for Genome Sciences, Foundation Medicine, HudsonAlpha and IntegraGen SA will present their experience using the Twist Bioscience Human Core Exome Kit today, February 14, at 12:00 p.m. ET during a lunch workshop.

Michael Wiley, Ph.D., of USAMRIID's Center for Genome Sciences will present data using Twist Bioscience double-stranded DNA capture probes to enhance viral whole-genome sequencing (WGS) in a talk entitled "Using TriSeq RNA Exome with Twist Bioscience Probes to Enhance Viral Whole-Genome Sequencing." "We've worked with Twist Bioscience (and Illumina) to create an exceptional panviral panel capable of detecting approximately 800 different viruses with extreme accuracy and believe that this panel will be critically important in identifying potential epidemics and outbreaks worldwide," said Dr. Wiley. "In addition, due to the uniformity and sensitivity of the custom DNA capture panels, we have been able to efficiently trace the spread of disease and the pattern of mutation for several viral outbreaks."

Christine Malboeuf, Ph.D., of Foundation Medicine will present data on the use of multiple DNA capture tools compared to the Twist Bioscience solution in a talk entitled "Comparison of Capture Methods for FFPE RNA-Sequencing."

Shawn Levy, Ph.D., of HudsonAlpha, will present data demonstrating the value of deep exome sequencing in specialized tissue samples entitled, "High-depth Exome Sequencing in FFPE Samples". Dr. Levy said, "We process a wide diversity of sample types every day. Having a robust and high-performance exome kit that allows customization and integrates within our existing protocol elevates the promise of exome sequencing as a cost-effective and robust solution for genetic testing and analysis."

Emmanuel Martin of IntegraGen SA will present a talk entitled "From exome capture to data analysis: integrating workflow to get the highest insights and value from your research" focused on the benefit of an end-to-end robust next-generation sequencing workflow for maximum efficiency. "After an extensive evaluation of several different providers including the possibility of moving to a whole genome sequencing approach, we selected the Twist Bioscience platform based on its improved performance and versatility for customization," said Mr. Martin. "As the first company in France to incorporate the Kit into its product offerings, we look forward to integrating the Twist Bioscience products into our next-generation sequencing (NGS) services to offer market leading uniform sequence coverage while maintaining specificity to reduce the overall cost of sequencing for a wide range of clinical and genomics research applications."

As a component of offering the Human Core Exome Kit, Twist Bioscience will offer customers the option of adding IntegraGen's cloud-based platforms, Mercury and Sirius, for analysis of germline or cancer samples.

About the Twist Bioscience Exome and Custom NGS Preparation Solutions

Applying its proprietary DNA synthesis technology, Twist Bioscience has developed sample preparation products for customers performing next-generation sequencing experiments and analysis. The Twist Human Core Exome Kit includes all the tools needed for library construction, target capture and enrichment to prepare a sample for sequencing. This product suite is designed to provide exceptional performance, maximum capture efficiency and the flexibility to customize kit configuration. Twist Bioscience believes it is the only company to offer double-stranded DNA (dsDNA) probes within a comprehensive target enrichment kit used for exome and targeted sequencing. Using dsDNA as opposed to single-stranded DNA captures all specified sequences uniformly and avoids the problem of deamination (removal of an amino group). Deamination interferes with the accurate detection of gene mutations, and may hinder genetic results and clinical diagnoses, particularly in cancer and ancient samples. For more information please click [here](#).

The Human Core Exome Complete Kit is indicated for Research Use Only.

About United States Army Medical Research Institute of Infectious Diseases

USAMRIID's mission is to provide leading edge medical capabilities to deter and defend against current and emerging biological threat agents. Research conducted at USAMRIID leads to medical solutions—vaccines, drugs, diagnostics, and information—that benefit both military personnel and civilians. The Institute plays a key role as the lead military medical research laboratory for the Defense Threat Reduction Agency's Joint Science and Technology Office for Chemical and Biological Defense. USAMRIID is a subordinate laboratory of the U.S. Army Medical Research and Materiel Command. For more information, visit www.usamriid.army.mil [The information contained in this press release does not necessarily reflect the position or the policy of the Government and no official endorsement should be inferred.]

About Twist Bioscience Corporation

At Twist Bioscience Corporation, we work in service of customers who are changing the world for the better. In fields such as health care, agriculture, industrial chemicals and data storage, by using our synthetic DNA tools, our customers are developing ways to better lives and improve the sustainability of the planet. We believe that the faster our customers succeed, the better for all of us, and Twist Bioscience is uniquely positioned to help accelerate their efforts.

Our innovative silicon-based DNA Synthesis Platform provides precision at a scale that we believe is otherwise unavailable to our customers. Our platform technologies overcome inefficiencies and enable cost-effective, rapid, precise, high-throughput synthesis and sequencing, providing both the quality and quantity of the tools they need to rapidly realize the opportunity ahead. For more information about our products and services, please visit www.twistbioscience.com. Twist Bioscience is on Twitter. Sign up to follow our Twitter feed @TwistBioscience at <https://twitter.com/TwistBioscience>.

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