Twist Bioscience Unveils Differentiated Ultra High-Throughput Library Preparation Solution at AGBT

February 5, 2024

Early access of novel technology that enables preparation of thousands of samples at low cost through self-normalization, enhanced multiplexing, and streamlined workflow

Innovative solution positioned to drive NGS adoption in AgBio

Twist Flex Prep UHT Kit and additional NGS tools to be highlighted at AGBT General Meeting

SOUTH SAN FRANCISCO, Calif.--(BUSINESS WIRE)--Feb. 5, 2024-- Twist Bioscience Corporation (NASDAQ: TWST), a company enabling customers to succeed through its offering of high-quality synthetic DNA using its silicon platform, today announced technology early access of the Twist Flex Prep Ultra High-Throughput (UHT) Kit, which aims to enable unparalleled throughput at a fraction of the cost of existing on market solutions, accelerating NGS' microarray conversion and adoption in agricultural genomics.

Built upon enzymatic fragmentation library preparation, the Twist Flex Prep UHT Kit utilizes novel chemistry that accepts and self-normalizes a wide range of sample input amounts through a new proprietary Normalization By Ligation (NBL) technology. This is crucial for researchers in AgBio who sequence thousands of samples of varying inputs and removes the need to manually normalize each one, saving significant time and costs. The kit also enables enhanced multiplexing by pooling samples early in the workflow so that researchers can process more samples without additional capital investment. The enhanced multiplexing further limits hands on time and saves researchers costs of reagents in downstream purification and indexing steps. In addition, pooling samples significantly reduces cost and plastic waste from pipette tips and plates in high-throughput labs.

"In agricultural genomics, researchers often test thousands of samples at once, relying heavily on automation to support large scale testing. Many researchers continue to perform traditional microarray based workflows, as overall higher cost per sample for NGS based workflow has hindered adoption," said Emily M. Leproust, Ph.D., CEO and co-founder of Twist Bioscience. "With the technology early access of our Twist Flex Prep UHT Kit, researchers will soon have access to a scalable, streamlined, and most importantly, cost effective NGS workflows for their various samples and research areas, and overcome the challenges that have caused slow adoption of NGS in the AgBio space. This ultra high-throughput solution could enable them to push new boundaries in breeding, trait selection, and other high-throughput applications, with high data quality while saving costs."

Twist Flex Prep UHT Kit Workflow

The Twist Flex Prep UHT Kit workflow is purpose-built to streamline and massively scale up Twist's established enzymatic fragmentation methods. The new NBL technology eliminates the need to measure quantity of each DNA sample and to perform time consuming concentration adjustment prior to library preparation, saving significant cost per sample. Following fragmentation and adapter ligation of each sample in a plate, up to 48 samples are pooled together in a single tube. This pooling strategy results in a meaningful reduction in both volumes and costs of reagents required for subsequent beads purification and amplification steps. Libraries prepared from this kit can be leveraged to perform standard whole genome sequencing (WGS), target enrichment, or low-pass WGS with enrichment.

By combining up to 48 unique adapters from the Twist UHT Flex Prep Kit with Twist's current high throughput Unique Dual Indexing (UDI) system, theoretical sample multiplexing can top more than 140,000. All plate and tube formats are optimized to ensure compatibility with key automation systems, a critical consideration for labs looking to streamline workflows and reduce hands-on time.

Presence at Advances in Genome Biology and Technology (AGBT) General Meeting

Twist will highlight its NGS tools in posters and presentations at the AGBT General Meeting taking place in Orlando, FL February 5-8, 2024. Details are as follows:

Poster: Twist Pan-Cancer Reference Standards V2: Enhanced Precision and Reduced Errors in ctDNA Analysis
Time: Tuesday, February 6, 1:30-3:30 PM ET

Presentation: Unveiling Next-Gen Solutions for Precision Diagnostics and Beyond
Speaker: Emily M. Leproust, CEO and co-founder of Twist Bioscience
Time: Wednesday, February 7, 3:00-3:20 PM PT
Location: Palms Ballroom 2 & 3

Poster: Development of a high-throughput NGS library preparation workflow with normalization adapters and in-line barcode technology
Time: Wednesday, February 7, 4:45-6:10 PM ET

About Twist Bioscience Corporation

Twist Bioscience is a leading and rapidly growing synthetic biology and genomics company that has developed a disruptive DNA synthesis platform to industrialize the engineering of biology. The core of the platform is a proprietary technology that pioneers a new method of manufacturing synthetic DNA by "writing" DNA on a silicon chip. Twist is leveraging its unique technology to manufacture a broad range of synthetic DNA-based products, including synthetic genes, tools for next-generation sequencing (NGS) preparation, and antibody libraries for drug discovery and development. Twist is

also pursuing longer-term opportunities in digital data storage in DNA and biologics drug discovery. Twist makes products for use across many industries including healthcare, industrial chemicals, agriculture and academic research.

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Twist Bioscience Legal Notice Regarding Forward-Looking Statements

This press release contains forward-looking statements. All statements other than statements of historical facts contained herein are forward-looking statements reflecting the current beliefs and expectations of management made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995, including, but not limited to, statements regarding the ability of the Twist Flex Prep UHT Kit to enable unparalleled throughput at a fraction of the cost of existing on market solutions, save researchers significant time and costs, and enable them to push new boundaries in breeding, trait selection, and other high-throughput applications. Forward-looking statements involve known and unknown risks, uncertainties, and other important factors that may cause Twist Bioscience's actual results, performance, or achievements to be materially different from any future results, performance, or achievements expressed or implied by the forward-looking statements. Such risks and uncertainties include, among others, the ability to achieve the expected benefits of Twist Bioscience's restructuring activities and reduced investments in DNA data storage; the ability to attract new customers and retain and grow sales from existing customers; the ability of Twist Bioscience to achieve sufficient revenue to achieve or maintain positive cash flow from operations or profitability in any given period; risks and uncertainties of rapidly changing technologies and extensive competition in synthetic biology that could make the products Twist Bioscience is developing obsolete or non-competitive; uncertainties of the retention of significant customers; the ability of Twist Bioscience to successfully integrate acquired companies and to achieve expected benefits from acquisitions; supply chain and other disruptions; risks of third party claims alleging infringement of patents and proprietary rights or seeking to invalidate Twist Bioscience's patents or proprietary rights; and the risk that Twist Bioscience's proprietary rights may be insufficient to protect its technologies. For a description of the risks and uncertainties that could cause actual results to differ from those expressed in these forward-looking statements, as well as risks relating to Twist Bioscience's business in general, see Twist Bioscience's risk factors set forth in Twist Bioscience's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on February 2, 2024 and subsequent filings with the SEC. Any forward-looking statements contained in this press release speak only as of the date hereof, and Twist Bioscience specifically disclaims any obligation to update any forward-looking statement, whether as a result of new information, future events or otherwise.

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