Twist Bioscience and Curio Genomics Collaborate to Accelerate and Streamline NGS Adoption in Agrigenomics

March 31, 2025

Collaboration to enable cost-effective end-to-end genotyping across large animal and plant populations

Companies to present poster at AGBT-Ag

SOUTH SAN FRANCISCO, Calif. & ANN ARBOR, Mich.--(BUSINESS WIRE)--Mar. 31, 2025-- Twist Bioscience Corporation (NASDAQ: TWST), a core mid-cap growth and value equity company in the life sciences segment of the health care sector, and Curio Genomics, a pioneer in genomics software, today announced a collaboration to accelerate the adoption of NGS workflows in agricultural genomics (agrigenomics) by offering Twist's FlexPrep ™Ultra-High Throughput (UHT) Library Preparation Kit with Curio's bioinformatics software and data platform.

This press release features multimedia. View the full release here: https://www.businesswire.com/news/home/20250331263780/en/

Despite the flexibility and depth of genomic data provided by NGS workflows compared to microarrays, adoption of NGS in agrigenomics has lagged due to the low cost and familiarity of microarray workflows. Pairing the Twist FlexPrep UHT Library Prep Kit and the CURIO™ platform creates a sequencer agnostic end-to-end solution from library prep through data analysis to provide agrigenomics customers with tools that overcome these challenges and simplify NGS adoption.

Specifically, the Twist FlexPrep UHT Library Prep Kit provides researchers with a tool to support a streamlined workflow with favorable economics, while scaling up assay throughput to thousands of samples with high flexibility. FlexPrep enables researchers to expand the depth and breadth of their data beyond just SNPs to generate high complexity libraries for low pass whole genome sequencing with high concordance to arrays. The CURIO bioinformatics software and data platform offers all-in-one genotyping, marker discovery and fine mapping in an intuitive interface. Rapidly delivering analysis results due to its uniquely scalable architecture, CURIO allows agrigenomics researchers to quickly interpret NGS data generated with Twist's FlexPrep UHT Library Prep Kit alongside historical data from microarrays. This enables them to make decisions faster, while maintaining insights even after changing their workflows.

"Our FlexPrep UHT Library Prep Kit eliminates many of the traditional barriers that have slowed NGS adoption in agrigenomics – making high throughput genotyping faster, easier, and more accessible than ever," said Emily M. Leproust, Ph.D., CEO and co-founder of Twist Bioscience. "By collaborating with Curio, we can now pair our FlexPrep UHT Kit with a robust easy-to-use, cost-effective software platform to conduct high-volume data analysis across array and NGS data from any animal or plant species. From library prep to data analytics, we believe this streamlined offering will facilitate a shift from microarray to next-generation sequencing."

"With our CURIO platform, we can provide researchers with a scalable, approachable way to analyze their data across species type and depth of coverage, enabling them to transition quickly from data generation to actionable insights," said Shawn Quinn, CTO & cofounder of Curio Genomics. "By offering our platform with Twist's FlexPrep UHT Library Prep Kit technology, we are making it easier for researchers to bridge historical microarray and new NGS data, analyze diverse species, and accelerate breakthroughs in agricultural genomics."

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

Poster: *Switching from Arrays to Sequence-Based-Genotyping in Cattle*
Date: Monday, March 31, 6:15 – 9:00 PM
Location: Caribbean Ballroom IV – VII

Twist FlexPrep™ Ultra-High Throughput (UHT) Library Preparation Kit
The Twist Flex Prep ™UHT Kit workflow is purpose-built to streamline and massively scale up Twist's established enzymatic fragmentation methods. The Normalization by Ligation ™(NBL) technology eliminates the need to measure the mass of each DNA sample and to perform labor-intensive concentration adjustment prior to library preparation, saving significant cost per sample. Following fragmentation and adapter ligation of each sample in a plate, up to 12 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 bead purification and amplification steps[1]. Libraries prepared from this kit can be leveraged to perform whole genome or targeted sequencing with the use of target enrichment panels. All plate and tube formats are optimized to ensure compatibility with key automation systems, a critical consideration for labs looking to streamline high throughput workflows and reduce hands-on time.

[1]As compared to Twist Library Preparation EF Kit 2.0.

About Curio Genomics
Curio Genomics is accelerating agriculture genomics research to deliver better products to the market. Curio Genomics' proprietary parallelized bioinformatics software and data platform, CURIO™, enables unprecedented data processing speed of large and complex genomic data, delivering genomic data to breeders in minutes through intuitive and easy to use interfaces, and all without the need to engage scarce bioinformatics experts. For information about Curio Genomics, visit www.curiogenomics.com and follow on Twitter and LinkedIn.

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, statement regarding the ability of the collaboration to provide agrigenomics customers with tools that overcome challenges, accelerate, and streamline, the adoption of NGS; the ability of Twist’s FlexPrep UHT Library Prep Kit to allow researchers to expand the depth and breadth of their data; and the belief that this streamlined offering will facilitate a shift from microarrays to NGS. 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 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; ability to obtain financing when necessary; 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; ability to expand DNA synthesis manufacturing capacity; dependence on one supplier for a critical component; dependence on key personnel; additional regulations that could increase Twist Bioscience's costs and delay commercialization efforts; and the ability to maintain and enforce intellectual property protection. 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 Annual Report on Form 10-K for the year ended September 30, 2024 filed with the Securities and Exchange Commission on November 18, 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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