Twist Bioscience Launches Portfolio of RNA Sequencing Tools

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Includes Twist RNA Exome, target enrichment for RNA and whole transcriptome sequencing

SOUTH SAN FRANCISCO, Calif.--(BUSINESS WIRE)--May 22, 2023-- 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 the launch of a portfolio of RNA sequencing tools, which includes the Twist RNA Exome, Twist RNA Library Prep Kit and the Twist Ribosomal RNA (rRNA) & Hemoglobin (Globin) Depletion Kit, as well as custom target enrichment capabilities for RNA and whole transcriptome sequencing. This comprehensive suite of RNA tools can enable targeted or whole transcriptome research across fields including precision medicine, biomarker discovery and immuno-oncology research.

“Twist’s RNA sequencing portfolio builds on our established NGS capabilities in genomic sequencing and methylation detection and expands into gene expression analysis, opening a new and significant market for Twist,” said Emily M. Leproust, Ph.D., CEO and co-founder of Twist Bioscience. “This offering allows our customers to leverage Twist’s leading target enrichment platform to discover and resolve low abundance RNA transcripts in the human transcriptome. Our RNA sequencing workflows are designed specifically for challenging samples. By enriching relevant transcripts, we can enable researchers to get high-quality data from a range of sample types, including damaged RNA.”

Unlike the genome, which is relatively static, the transcriptome changes over time in response to varying disease states and drug therapies. Gene expression levels also differ across tissues and cell types. To fully understand this dynamic quality of RNA, researchers often sequence RNA samples from the same source at multiple time points, incurring additional costs and resource burdens. Each component of the Twist RNA sequencing portfolio is purpose-built to maximize data quality, minimize workflow inefficiency, decrease wasted sequencing reads, and support comprehensive transcriptomic profiling across even low-quality and low-input samples common in oncology.

The Twist RNA sequencing portfolio provides end-to-end workflows that can be used to study total RNA and measure the whole transcriptome, protein coding sequences of messenger RNA (mRNA) or custom targets. These products can also be integrated into customers’ existing workflows. Twist RNA sequencing tools enable minimal hands-on time and increase the scale of samples sequenced through utilizing automation. They are compatible with a wide range of sample inputs, including difficult or low-quality samples. RNA panel designs can also now incorporate Twist’s new exon-aware design algorithm, which reduces bias in detection and can provide an important tool for researchers studying rare gene transcripts that drive tumor biology.

Twist Targeted RNA Sequencing Workflow

Twist target enrichment for RNA leverages the performance, efficiency and sensitivity of Twist target enrichment for sequencing of RNA transcripts of interest across samples and species. It can be used to enrich relevant transcripts with the RNA Exome or in custom RNA panels.

Twist RNA Exome

The Twist RNA Exome with Twist’s exon-aware design algorithm enables targeted sequencing of the protein coding regions of the human transcriptome without bias toward specific combinations of exons. The Twist RNA Exome covers up to 99.9% of protein coding sequencing in Gencode and RefSeq databases. This coverage, along with the exon-aware design approach, could enable researchers to capture important transcripts including those in low input and degraded samples from formalin fixed paraffin embedded (FFPE) sections.

Twist Whole Transcriptome Sequencing Workflow

Twist Whole Transcriptome Sequencing can be used to discover novel transcripts, including low expressing genes and novel isoforms. It can be used with a variety of samples including whole blood, fresh and frozen tissue samples and low quality samples, such as FFPE samples. The Twist rRNA & Globin Depletion Kit can be used with this workflow to deplete rRNA and hemoglobin targets so that researchers can study the rest of the transcriptome. The full workflow can be completed in less than five hours with minimal hands-on time.

For more information, please visit: https://www.twistbioscience.com/products/ngs/rna-sequencing-solutions

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 Twist's RNA sequencing portfolio to enable customers to discover and resolve low abundance RNA transcripts and get high quality data from a range of sample types; maximize data quality, minimize workflow efficiency, decrease wasted sequencing reads, and support comprehensive transcriptomic profiling; enable minimal hands-on time; and increase the scale of sequenced samples, and statements regarding the ability of Twist's exon-aware algorithm to reduce bias in detection. 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 workforce reduction, transition of production to the Factory of the Future 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 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 caused by the COVID-19 pandemic or otherwise; 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 May 8, 2023 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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