Twist Bioscience Announces Robust Antibody Discovery Services Integrating In Vivo, In Vitro and In Silico Approaches

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-- Integrated offering to be highlighted at Festival of Biologics --

-- Tracey Mullen, MBA, to lead Twist Biopharma Solutions --

SOUTH SAN FRANCISCO, Calif.--(BUSINESS WIRE)--Mar. 9, 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 an integrated offering of antibody discovery services available to customers. The offering combines Twist Biopharma's synthetic libraries and AI machine learning with an *in vivo* immunization approach gained through the acquisition of Abveris, also known as Twist Boston. This premium service is able to provide customers with optimized, development-ready antibody candidates. The combined team will be led by Tracey Mullen, MBA, who was appointed senior vice president of biopharma for Twist Bioscience.

"By integrating our platforms into a robust service menu, we now offer premium throughput, resolution and speed to customers looking to outsource antibody discovery and optimization," said Emily M. Leproust, Ph.D., CEO and co-founder of Twist Bioscience. "When we acquired Abveris about a year ago, we knew bringing *in vivo*, *in vitro* and *in silico* platforms together within Twist would truly differentiate our capability to optimize and deliver development-ready antibody drug candidates for our customers, including different antibody formats (bispecific, antibody drug conjugates (ADCs), monoclonal, VHH, etc.) in multiple therapeutic areas."

Dr. Leproust continued, "We have a rapid workflow, a track record of successfully identifying antibody leads against some of the hardest to drug biological targets and have discovered antibodies that are now in clinical trials. This makes Twist a strong partner for companies who desire a comprehensive and differentiated approach for both small projects and end-to-end workflows. We also routinely take on projects where others have failed to deliver antibodies."

The newly combined entity, now known as Twist Biopharma Solutions, combines proprietary technology with years of industry expertise and scientific excellence to find the best antibody candidate for given therapeutic targets of interest. Supported by high-throughput DNA synthesis and IgG antibody production, Twist constructs large and highly specific synthetic antibody libraries with discovery beginning with either *in vivo* or *in vitro* diversity. These libraries are then screened to identify the best antibody candidates for a specific target. Additionally, the integration of the Abveris *in vivo* discovery approaches of single B cell screening and hybridoma discovery enable parallel paths where multiple technology methods can be leveraged to create a panel of highly diverse antibody leads with broad epitope coverage. This multi-pronged approach can increase the likelihood of discovering highly specific, high affinity functional antibodies by sampling both natural and synthetic diversity.

Twist offers an end-to-end workflow for centralized antibody discovery and optimization. Services include:

- Target validation (antigen development, tool antibody development)
- Hit generation (hybridoma, single B cell, phage display, alternative *in vivo* models)
- Lead selection (*in vitro* characterization, secondary and tertiary screening, functional screening, high throughput developability screening, epitope mapping, small and midsize purification)
- Lead optimization (humanization, affinity maturation)
- Lead characterization (functional profiling, advanced developability assessment)

Twist Biopharma Solutions, which includes the combined South San Francisco and Boston biopharma teams, will be led by Tracey Mullen in her newly appointed role as senior vice president of biopharma. Aaron Sato, Ph.D., remains integrally involved in Twist Biopharma Solutions and in his role as chief scientific officer of Twist Bioscience, extends his expertise across the organization.

"To set the stage for success and best leverage our core biopharma capabilities to drive revenue growth and acceleration, we will tap into Tracey's commercial and operational expertise to take us forward," said Dr. Leproust. "With the Factory of the Future coming along nicely, Tracey is ideally positioned to drive the customer funnel and focus on optimizing the biopharma team for revenue generation."

Tracey joined Twist through the acquisition of Abveris in November 2021. In April 2022, she took on the position of senior vice president of operations, driving the completion of the Factory of the Future in Wilsonville, Oregon, which began shipping products in January 2023. Prior to Twist, she served as CEO of Abveris. Before Abveris, she served on the antibody discovery team at Biogen where she helped implement the technology transfer of the Adimab yeast display platform for antibody discovery and engineering. Throughout her tenure at Biogen, Tracey worked to optimize the *in vitro* discovery of antibodies to traditionally difficult therapeutic targets, including leveraging the Adimab platform to generate antibodies against GPCRs. Previously she worked for a contract research organization specializing in *in vivo* antibodies. She received her B.S. in chemical and biological engineering from the Massachusetts Institute of Technology and her Executive MBA from Quantic School of Business and Technology.

Presence at the Festival of Biologics

The integrated offering of antibody discovery services will be highlighted at the Festival of Biologics occurring March 20-22, 2023 in San Diego. For more information on the integrated offering, please attend the oral presentation titled, “Writing the Future of Biologics with an Integrated Offering of Immunization, Libraries, and Machine Learning” to be given by Aaron Sato, CSO of Twist Bioscience on Tuesday, March 21 at 12:20 PM PT. Twist will also have posters and a booth at the event.

About Twist Biopharma Solutions (The Biologics Discovery and Optimization Division of Twist Bioscience)

Twist Biopharma Solutions combines high-throughput DNA synthesis technology, deep expertise in antibody engineering and *in vivo*, *in vitro* and *in silico* discovery methods to provide end-to-end antibody discovery solutions across the preclinical continuum and tailored to our partner’s specific needs. By leveraging our unique ability to manufacture DNA at scale, we can construct proprietary antibody libraries with discovery beginning with either *in vivo* or *in vitro* diversity. Our Library of Libraries gives our partners an integral and unbiased resource for antibody therapeutic discovery and optimization. This precise and rational approach to library fabrication combined with sophisticated bioinformatics and software expertise expedites antibody discovery by decreasing risk, increasing speed, and lowering the failure rate for antibody therapeutic development. Additionally, *in vivo* discovery approaches including single B cell screening and hybridoma discovery enable parallel paths where multiple technology methods can be leveraged to create a panel of highly diverse antibody leads. Our automated screening and panning processes enable us to identify high affinity leads that our partners can move forward into the clinic. We also offer supporting development capabilities, including IgG conversion, expression, purification, biophysical characterization, and functional characterization.

For more information visit: https://www.twistbioscience.com/products/antibody-discovery/twist-bioscience-and-abveris

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 statements regarding future growth and the capabilities of the Twist Biopharma Solutions offering. 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 risks and uncertainties relating to COVID-19; the ability to attract new customers and retain and grow sales from existing customers; 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, including Abveris, 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 February 7, 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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