Twist Bioscience Partners with Vanderbilt University Medical Center to Supply Critical Products and Identify Antibody Therapeutics for COVID-19

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SOUTH SAN FRANCISCO, Calif.--(BUSINESS WIRE)--Mar. 26, 2020-- 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 a collaboration with Vanderbilt University Medical Center (VUMC) to supply synthetic genes and antibodies for the development of therapies for COVID-19. In addition, Twist Biopharma, a division of Twist Bioscience, will provide custom antibody drug discovery libraries and will screen the libraries for potential antibody therapeutics that would treat patients with COVID-19.

“We are moving very quickly to employ our knowledge of infectious disease and robust computational biology platform to identify new therapeutics for COVID-19,” said Robert Carnahan, Ph.D., associate director of the Vanderbilt Vaccine Center at VUMC. “Twist is the only synthetic DNA provider who can deliver the quantity and quality of DNA we need for our projects rapidly. We are working with them not only as a vendor for synthetic genes and antibodies, but have expanded our relationship to leverage the Biopharma capabilities, which we believe complement our antibody discovery efforts.”

VUMC has been working with Twist Bioscience since 2018 when VUMC received a grant from the U.S. Defense Advanced Research Projects Agency (DARPA) for the Pandemic Prevention Platform (P3). The P3 program focuses on preparing for pandemics and specifically reducing the time required to develop protective antibodies from lab to field. The objective of the program is to go from outbreak to a clinic-ready therapeutic in 60 days, versus the standard timeline of one to two years. VUMC is now leveraging the learning from the P3 program to pursue therapeutic antibodies to treat COVID-19.

VUMC’s approach to identifying potential antibody therapeutics is unique. Antibody-producing B cells are isolated from patients who have recovered from a viral infection, in this case COVID-19. The next step is to screen through all of the antibodies using proprietary bioinformatics and select thousands of antibody sequences that have the potential to effectively treat the disease. Twist then “writes” these synthetic DNA sequences base by base. The sequences are subsequently put into a recombinant antibody workflow to produce material for screening and selection in a few short days to identify lead antibody candidates for further development.

In addition to the current relationship, VUMC is partnering with Twist Biopharma to access its proprietary antibody discovery capabilities. VUMC has supplied Twist Biopharma with a large number of antibody sequences from a patient who had recovered from COVID-19. Because the human immune system naturally generates antibodies against specific foreign invaders, including SARS-CoV-2, the virus that causes COVID-19, antibodies from recovered individuals have the potential to become broadly neutralizing antibodies for other people infected with the virus. Twist Biopharma is currently building a proprietary synthetic antibody discovery library based on these sequences to identify the antibodies that may potentially be effective against SARS-CoV-2, and will work together with VUMC on these efforts.

“Twist exists to solve difficult problems, to meet the needs of our customers who are truly changing the world for the better,” said Emily M. Leproust, Ph.D., CEO and co-founder. “The work that VUMC is conducting using our synthetic antibodies and together with Twist Biopharma, is exactly that – changing the world for the better by addressing this pandemic head-on. We are proud to support such incredible visionary research that has the potential to revolutionize the way pandemics are addressed.”

About Twist Bioscience Corporation

Twist Bioscience is a leading and rapidly growing synthetic biology 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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About Vanderbilt University Medical Center

Vanderbilt University Medical Center (VUMC) is one of the nation’s largest academic medical centers. As part of its research enterprise, in partnership with the Vanderbilt University School of Medicine, the Vanderbilt Vaccine Center is participating in DARPA’s Pandemic Protection Platform (P3) program, a five-year cooperative agreement to develop protective antibody treatments that can be rushed to health care providers within 60 days after the outbreak of viral diseases anywhere in the world.

Legal Notice Regarding Forward-Looking Statements

This press release contains forward-looking statements. All statements other than statements of historical facts contained herein, including without limitation Twist’s ability to supply synthetic genes and antibodies to VUMC in the quantity and quality required by VUMC, the success of the P3 program in achieving its objective, the ability to successfully select antibody sequences that have the potential to effectively treat COVID-19, the ability to successfully identify lead antibody candidates for further development and the ability of Twist’s proprietary synthetic antibody discovery library to

help identify antibodies that are effective against SARS-CoV-2, 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. Such 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 of 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 could make the products Twist Bioscience is developing obsolete or non-competitive; uncertainties of the retention of a significant customer; 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 further 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 10, 2020. 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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