Twist Bioscience Launches Monkeypox Virus Synthetic DNA Controls

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New synthetic controls add to growing portfolio of NGS applications for viral diseases

SOUTH SAN FRANCISCO, Calif.--(BUSINESS WIRE)--Jul. 14, 2022-- Twist Bioscience Corporation (NASDAQ: TWST), a company enabling customers to succeed through its offering of high-quality synthetic DNA using its silicon platform, today launched two human monkeypox virus synthetic DNA controls[1].

Positive controls provide quality control measures for the development, verification, and ongoing validation of both next-generation sequencing (NGS) and polymerase chain reaction (PCR) assays. The Twist synthetic DNA controls include both known clades of the monkeypox virus, currently named the Congo Basin (Central African) clade and the West African clade, the latter of which has been identified as the predominant clade in the current multi-country outbreak.

"The monkeypox controls are the most recent addition to our expanding portfolio of synthetic controls and reference standards that empower our customers to develop research and diagnostic tests to improve global health. They also complement our growing suite of NGS applications for viral diseases, including the Twist Pan-Viral Panel, which was used by researchers to characterize the monkeypox pathogen in a previous outbreak and highlighted in The Lancet[2]," said Emily M. Leproust, Ph.D., CEO and co-founder of Twist Bioscience. "As new and existing pathogens emerge as public health concerns, we will continue to rapidly develop tools to enable cutting edge research that improve global health outcomes."

The monkeypox synthetic DNA controls are designed based on specific monkeypox clades, cover over 80% of the full viral genome and are sequence-verified using NGS and ddPCR. Each control is made up of 1.8kb of overlapping fragments that tile the genome. Customers purchasing synthetic controls are subject to Twist's leading biosecurity and customer screening protocols and applicable laws and regulations. An export license will be required for international customers.

Twist provides a suite of research tools and NGS products, including custom controls and reference standards for monkeypox, respiratory diseases including coronaviruses, influenza viruses, paramyxoviruses and enteroviruses as well as liquid biopsy and cancers. Twist also offers the Twist Pan-Viral Panel, which contains over 600,000 probes for the targeted enrichment of over 1,000 viral human pathogens, including those that cause monkeypox, Zika virus and other diseases. In a study published in The Lancet Infectious Diseases in 2018, researchers used the Twist Pan-Viral Panel to screen blood samples for viral content to analyze the genetic makeup and origin of a monkeypox virus outbreak in Nigeria.

To learn more about the Twist monkeypox virus synthetic DNA controls, visit: https://www.twistbioscience.com/MonkeypoxControls.

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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This press release contains forward-looking statements. All statements other than statements of historical facts contained herein, including without limitation Twist's ability to deliver synthetic controls for monkeypox to its customers, 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. 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. 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 6, 2022 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.

[1] *Due to the urgent need to make the monkeypox synthetic controls available to customers, they are not yet ISO certified.*

[2] *Faye, O., Pratt, C.B., Faye, M., Fall, G., Chitty, J.A., et al., 2018. Genomic characterisation of human monkeypox virus in Nigeria. The Lancet Infectious Diseases 18, 246. https://doi.org/10.1016/S1473-3099(18)30043-4*

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