



Twist Bioscience Highlights Synthetic Libraries and High Throughput Antibody Discovery Platform at PEGS Boston 2022

May 2, 2022

-- Writing the Future of Biologics Presentation on May 2 --

-- Rapid, Function-Forward mAb Discovery against a Cell Surface Target via Concurrent Use of Humanized and Hyperimmune Mice Presentation on May 4 --

SOUTH SAN FRANCISCO, Calif.--(BUSINESS WIRE)--May 2, 2022-- [Twist Bioscience Corporation](https://www.twistbioscience.com) (NASDAQ: TWST), a company enabling customers to succeed through its offering of high-quality synthetic DNA using its silicon platform, today announced six poster presentations at PEGS (The Essential Protein Engineering & Cell Therapy Summit) Boston occurring May 2-6 virtually and in-person at the Hynes Convention Center in Boston, MA. In addition, Aaron Sato, Ph.D., chief scientific officer of Twist Bioscience, will present 'Writing the Future of Biologics' on May 2 at 2:50 PM ET and Tracey Mullen, SVP, operations, will present 'Rapid, Function-Forward mAb Discovery against a Cell Surface Target via Concurrent Use of Humanized and Hyperimmune Mice' on May 4 at 12:30 PM ET. Twist will also host a networking event on May 4 from 7:00-10:00 PM ET. Visit <https://bit.ly/TwistMixer> to register.

"These posters show the depth and breadth of the antibody discovery and library construction capabilities of Twist Biopharma against high-impact targets," said Emily M. Leproust, Ph.D., CEO and co-founder of Twist Bioscience. "Our next generation libraries enable antibody discovery for therapies such as CAR-T engineered cell therapies, which have the potential to change the treatment landscape for patients. In addition, the data presented on the discovery of an antibody targeting ADORA2A, a next generation checkpoint, demonstrate Twist Biopharma's ability to generate antibodies independently."

Poster Number: P003

[Advanced Antibody Discovery Workflow to Capture Maximum Repertoire Diversity](#)

The complexity of antibody therapeutic targets continues to evolve, which in turn necessitates the evolution of integrated discovery methodologies. Incorporating state-of-the-art, high-resolution techniques enables reliable candidate triage more efficiently than traditional techniques. Major advancements in critical tools have improved antibody discovery by providing robust and thorough analysis of target specificity, function, and developability earlier in the drug development process. Effective integration of these technologies bolsters the antibody discovery process and facilitates lead candidate selection within as few as two months.

Poster Number: P004

[In Vivo VHH Discovery Workflow Based on Immunized Alpaca and Rapid Beacon-Based Single B Cell Screening](#)

VHH antibodies have demonstrated tremendous promise as versatile building blocks for antibody-based therapeutics, multispecifics and cell-based biologics due to higher affinity and better access to hidden epitopes on cell surface targets as compared to conventional IgG antibodies. Effective integration of advanced tools for analysis of target specificity, function and developability can bolster the VHH discovery process and facilitate lead candidate selection for novel therapeutic modalities against traditionally challenging targets.

Poster Number: P143

[Next Generation Synthetic Libraries for Enzyme Engineering, Cell Therapy and Gene Editing Technologies](#)

This poster details Twist's next generation libraries including CRISPR gRNA libraries, which are an efficient tool for high throughput gene editing and knockout of molecular targets; synonymous codon (SynCodon) libraries, which are optimized to improve protein yields, binding affinity, stability, and expression of proteins; and T cell receptor (TCR) and chimeric antigen receptor (CAR) T cell libraries, which can be used in combination to screen a large scale of module sets.

Poster Number: P144

[Discovery of Pre-clinical ADORA2A Antibody with Twist High Throughput Antibody Discovery Platform](#)

These data detail how Twist used its high-throughput DNA synthesis platform and a large-scale phage library built based on a mouse immunization platform from Abveris, a division of Twist Bioscience, to discover a high-affinity antagonistic ADORA2A antibody, which in preclinical studies restored T cell activity and showed anti-tumor activity.

Poster Number: P145

[Engineering Synthetic Multivalent VHH Antibodies at Scale](#)

These data describe Twist's scalable process for engineering high affinity mono and bispecific multivalent VHH-Fc antibodies against the SARS-CoV-2

spike protein.

Poster Number: P146

Leveraging synthetic Library of Libraries to enable effective antibody discovery against high-impact targets

This poster demonstrates how Twist discovered high-affinity antibodies for six cytokine or immunomodulatory targets by constructing synthetic antibody libraries, using phage display to pan libraries against biotinylated protein targets, and screening for lead candidates through ELISA binding assays and NGS enrichment tracking.

About Twist Biopharma

By leveraging our unique ability to manufacture DNA at scale, we can construct proprietary antibody libraries precisely designed to match sequences that occur in the human body. The Library of Libraries gives our partners an integral and unbiased resource for antibody 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 development.

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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