



Twist Bioscience Announces Publication in Science Examining Biosecurity Screening Practices in AI-assisted Protein Design

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Study and red-teaming exercise led by Microsoft brought together consortium of scientific and industry experts

Twist remains at the forefront of biosecurity innovation, demonstrating leadership in both policy engagement and technical solutions

SOUTH SAN FRANCISCO, Calif.--(BUSINESS WIRE)--Oct. 2, 2025-- [Twist Bioscience Corporation](#) (NASDAQ: TWST), a mid-cap growth and value biotech company, today announced the publication in *Science* of the peer-reviewed paper, "[Strengthening nucleic acid biosecurity screening against generative protein design tools](#)," led by Microsoft and co-authored with a consortium of scientific and industry experts including the International Gene Synthesis Consortium.

In a first-of-its-kind study to highlight the impact of AI on a particular industry, the publication highlights the importance of iterative improvement, cross industry collaboration and foresight in biosecurity screening. For known proteins and sequences, current biosecurity and screening practices work well today to detect and prevent misuse. As AI continues to unlock new possibilities in sequence and protein design, it is important to anticipate and mitigate potential misuse. Twist's participation in this initiative, alongside key players in technology and life sciences research, exemplifies a proactive approach to safeguard public health, providing an example for other industries to follow.

"Since the inception of Twist, we have developed and advanced stringent biosecurity screening methods and standards in parallel with our commercial offerings. For known proteins and sequences, industry best practices for biosecurity screening are robust and highly effective. However, as AI capabilities evolve, screening practices must evolve just as quickly," said Emily M. Leproust, CEO and co-founder of Twist Bioscience. "Recognizing the critical role that we play in the advancement of our customer's research, together with Microsoft, we are looking around the corner to identify and guide industry next steps for impactful drug discovery while advancing science responsibly."

"As AI opens new frontiers in the life sciences, we have a shared responsibility to continually improve and evolve safety measures," said Dr. Eric Horvitz, Chief Scientific Officer of Microsoft and co-lead author of the study. "This research highlights the importance of foresight, collaboration, and responsible innovation. By partnering with Twist and other organizations in the synthetic DNA space to proactively identify and mitigate biosecurity risks, we help ensure that the benefits of AI in biology and medicine are realized with safety and care."

The study revealed that AI-designed sequences of protein variants of toxins and viral proteins could escape detection by standard biosecurity screening software. While these were digital sequences only and it is unknown whether these engineered sequences would remain pathogenic once manufactured, this coordinated red-teaming effort resulted in improved detection protocols. Twist and its partners used these findings to develop patches and novel strategies that enhance screening accuracy of engineered protein sequences. Iterative and intentional development of protocols in dialogue with industry advocates, government entities, large technology companies and more, together with the use of multiple tools including AI to detect variants and new sequences that have the potential to be pathogenic, will ensure a focus on continuing safe and responsible research across industries.

About Twist Bioscience Corporation

At Twist Bioscience, we work in service of customers who are changing the world for the better. In fields such as medicine, agriculture, industrial chemicals and defense, by using our synthetic DNA tools, our customers are developing ways to better lives and improve the sustainability of the planet. The faster our customers succeed, the better for all of us, and Twist Bioscience is uniquely positioned to help accelerate their efforts.

Our innovative silicon-based DNA Synthesis Platform provides precision at a scale that is otherwise unavailable to our customers. Our platform technologies overcome inefficiencies and enable cost-effective, rapid, precise, high-throughput synthesis, sequencing and therapeutics discovery, providing both the quality and quantity of the tools they need to most rapidly realize the opportunity ahead. For more information about our products and services, please visit www.twistbioscience.com.

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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 the evolution of biosecurity screening with advancing AI and the development of new standards for safe and responsible research. Forward-looking statements involve known and unknown risks, uncertainties, and other important factors that may cause Twist'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 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; ability to obtain financing when necessary; risks and uncertainties of rapidly changing technologies and extensive competition in synthetic biology that could make the products Twist is developing obsolete or non-competitive; ability to expand DNA synthesis manufacturing capacity; dependence on one supplier for a critical component; dependence on key personnel; additional regulations that

could increase Twist's costs and delay commercialization efforts; changes in U.S. trade policies and other trade actions that could result in increased costs and supply chain disruptions; and the ability to maintain and enforce intellectual property protection. 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's business in general, see Twist's risk factors set forth in Twist's Annual Report on Form 10-K for the year ended September 30, 2024 filed with the Securities and Exchange Commission (SEC) on November 18, 2024 and subsequent filings with the SEC. Any forward-looking statements contained in this press release speak only as of the date hereof, and Twist 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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