



PacBio and TychoBio Collaborate to Train AI Models for Rare Disease RNA Therapeutics

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PacBio Kinnex sequencing will generate full-length transcript data to help advance TychoBio's drug discovery models

MENLO PARK, Calif. and PARIS, Oct. 06, 2026 (GLOBE NEWSWIRE) -- PacBio (NASDAQ: PACB), developer of the world's most advanced sequencing technologies, and TychoBio, an AI drug discovery company, today announced a collaboration to generate full-length RNA data that TychoBio will use to train models for RNA therapy design. Under the terms of the agreement, TychoBio plans to use PacBio HiFi sequencing and [Kinnex long-read RNA sequencing](#) to generate data from more than 10,000 samples, building large-scale datasets linking the design of steric blocking antisense oligonucleotides (SBOs) to their effects across the transcriptome, with plans to expand the approach to siRNA and other RNA-targeting compounds.

TychoBio will test candidate RNA therapies and use PacBio sequencing to measure how each one changes the transcriptome across multiple cell types. Those results will become training data for models designed to predict which compounds are most likely to work, how long their effects may last, and where unintended effects may occur.

Training models for maximizing on-target efficacy and effect duration of SBOs requires an in-depth understanding of the interaction between SBOs and the cell's transcriptome. By more fully characterizing the effect of SBOs in various cell lineages, TychoBio will unlock new insights into RNA regulation and SBOs mechanism of action, accelerating the development of safer and more efficient therapeutic designs.

"AI models are only as good as the data they are trained on. To effectively identify new rare disease treatments, we needed the highest quality biological data, which can only be generated using PacBio HiFi sequencing technology," said Felix Raimundo, founder and CEO of TychoBio. "HiFi long read sequencing lets us see across full-length transcripts, including changes in isoforms and splicing of how the transcriptome is affected in rare diseases and which treatments could modify disease processes."

PacBio has partnered across the rare disease community to support the characterization, diagnosis and development of therapeutics to address the global burden of rare disease including through its [global HiFiSolves Consortium](#), [the n-Lorem Foundation and EspeRare](#), [the GREGoR Consortium](#), [Care4Rare Canada Consortium](#), [the Genetic Alliance](#), [Genomics England](#), and many academic collaborations. The company's Kinnex products, alongside HiFi sequencing, enable screening of thousands of sequences in multiple cell lineages as well as the development of models of both efficacy and toxicity, which are critical to advance potential rare disease therapies out of the laboratory and into patient clinical trials.

"Our work with TychoBio, like our collaboration with Basecamp Research, highlights the critical value that high-quality sequencing data plays in generating the foundational data that will power biological modeling in the AI ecosystem," said Mark Van Oene, President and Chief Executive Officer of PacBio. "We believe that this critical work will enable the development of transformative therapies that ultimately improve the lives of patients with rare diseases and their families."

The collaboration puts HiFi data directly into the research workflow for designing RNA therapeutics for rare diseases.

About PacBio

PacBio (NASDAQ: PACB) is a premier life science technology company that designs, develops, and manufactures advanced sequencing solutions to help scientists and clinical researchers resolve genetically complex problems. Our products and technologies, which include our HiFi long-read sequencing, address solutions across a broad set of research applications including human germline sequencing, plant and animal sciences, infectious disease and microbiology, oncology, and other emerging applications. For more information, please visit www.pacb.com and follow @PacBio.

PacBio products are provided for Research Use Only. Not for use in diagnostic procedures.

About TychoBio

TychoBio is a frontier biology company that designs RNA therapeutics. Our data-generation platform unlocks scaling laws for gene therapies. We are bringing in therapeutic abundance to previously ignored patient populations. For more information, please visit www.tychobio.ai and follow @tychobio_ai.

Forward-Looking Statements

This press release may contain "forward-looking statements" within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, and the U.S. Private Securities Litigation Reform Act of 1995. All statements other than statements of historical fact are forward-looking statements, including statements relating to the availability, uses, accuracy, advantages, quality or performance of, or benefits of using, or expected benefits of using, PacBio products or technologies, including in connection with the collaboration between PacBio and TychoBio; plans related to potential therapy development and design, acceleration of safer and more efficient therapeutic designs and development, dataset generation, types of data generated, sequencing at least 10,000 samples, expansion to other compounds, and impact on rare disease characterization and diagnosis; transforming long-read sequencing data into meaningful genomic insights; value of high-quality sequencing data in AI ecosystem biological modeling; HiFi data being directly in the workflow for RNA therapy design for rare diseases; and other future events. You should not place undue reliance on forward-looking statements because they are subject to assumptions, risks, and uncertainties and could cause actual outcomes and results to differ materially from currently anticipated results, including, challenges inherent in using new technologies; potential product performance and quality issues; rapidly changing technologies and extensive competition in, and potential FDA regulatory issues relating to, genomic sequencing; unanticipated increases in costs or expenses; interruptions or delays in the supply of components or materials for, or manufacturing of, PacBio products and products under development; third-party claims alleging infringement of patents and proprietary rights or seeking to invalidate PacBio's patents or proprietary rights, among others. Additional factors that could materially affect actual results can be found in PacBio's most recent filings with the Securities and Exchange Commission, including PacBio's most recent reports on Forms 8-K, 10-K, and 10-Q, and include those listed under the caption "Risk Factors." These forward-looking statements are based on current expectations and speak only as of the date hereof, except as

required by law, PacBio disclaims any obligation to revise or update these forward-looking statements to reflect events or circumstances in the future, even if new information becomes available.

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