Basecamp Research Selects PacBio HiFi Sequencing to Power Trillion Gene Atlas Initiative

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PacBio's Revio system and SPRQ-Nx chemistry to enable an order-of-magnitude expansion of HiFi metagenomic sequencing for scaling AI-designed therapeutics

MENLO PARK, Calif., March 18, 2026 (GLOBE NEWSWIRE) -- PacBio (NASDAQ: PACB), a leading provider of high-quality, long-read sequencing technologies, today announced that Basecamp Research, a frontier AI lab for therapeutic design, has selected PacBio HiFi sequencing on the Revio® system to generate large-scale environmental and host-associated metagenomic data for the Trillion Gene Atlas—a landmark scientific initiative designed to generate and model biological data at the trillion-gene scale. The collaboration is expected to result in approximately 100,000 deeply sequenced samples from over 31 countries across 5 continents, creating the largest and most diverse high-fidelity metagenomic dataset assembled to date.

As AI models for biological design advance, model performance increasingly depends on the diversity, quality, and genomic context of training data. Basecamp's EDEN (Environmentally-Derived Evolutionary Network) model leverages large-scale evolutionary metagenomic data to capture biological signals often missing from curated reference genomes—particularly when long-range genomic context is preserved.

PacBio HiFi sequencing combines high accuracy with long reads to resolve complex genomes and microbial communities. In metagenomics—where function can vary across closely related strains—HiFi sequencing preserves genomic context to enable complete, strain-resolved assemblies and accurate reconstruction of repeats, mobile elements, structural variants, plasmids, phage genomes, and operons. The resulting metagenomic data are highly accurate, reliable, and comprehensive, providing a strong foundation for AI model training. With SPRQ-Nx chemistry, PacBio further improves sequencing efficiency and cost-effectiveness, making large-scale, deeply sequenced metagenomic projects increasingly economical.

"We are thrilled to be partnering with Basecamp Research as they aim to expand known evolutionary genetic diversity 100-fold," said Christian Henry, President and CEO of PacBio. "Because HiFi sequencing technology combines high accuracy with long reads to preserve full genomic structure, we believe HiFi sequencing is the ideal data type for developing the AI-driven insights to drive future therapeutic discoveries. With Revio and SPRQ-Nx production workflows, we're ready to power the Trillion Gene Atlas at foundation-model scale."

"Expanding the evolutionary universe available to AI requires not just more data, but better data," said Glen Gowers, Co-founder and CEO of Basecamp Research. "PacBio's long-read sequencing allows us to capture genomic structure and context that are essential for training biological foundation models. By combining high-fidelity sequencing, accelerated compute, and our advanced models, the Trillion Gene Atlas is designed to enable a new generation of AI systems capable of designing transformative medicines."

PacBio will support the Trillion Gene Atlas with production-scale workflows refined through previous large initiatives, including the All of Us Research Program, the Estonia Biobank, and the Darwin Tree of Life. SPRQ-Nx enables consistent, high-performance sequencing across large and diverse sample sets, supporting reliable generation of HiFi data as the project scales.

PacBio joins collaborators Anthropic, NVIDIA, and Ultima Genomics contributing to the Trillion Gene Atlas, bringing together advances in biological data generation, AI model development, and high-performance computing.

"Metagenomics gives us access to the vast biological diversity that exists across Earth's environments," said Jill Banfield, Professor, UC Berkeley. "With highly accurate, context-rich HiFi sequencing, we can reconstruct genomes, often essentially complete genomes, enabling confident analyses that would be difficult or impossible with short read data. The HiFi sequences open the way to building biological models that operate across environmental and human systems."

For the Trillion Gene Atlas and beyond, we believe Revio with SPRQ-Nx is positioned as the go-to platform for production-scale, high-fidelity long-read sequencing to advance the next generation of biological foundation models and AI-driven design.

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 Basecamp Research
Basecamp Research is a frontier AI lab for biological design. By breaking through the biological data wall holding back AI in biology with its proprietary BaseData™ (the world's largest evolutionary genomic database), the company has trained some of the largest biological AI models ever developed. Its flagship multi-modality model, EDEN, is the first to enable "prompt-to-medicine" capabilities, designing programmable therapeutics across diverse modalities including cell and gene therapies. Backed by industry pioneers and a world-class team of researchers from leading AI and bio labs, Basecamp Research is building a scalable pipeline of cures to reshape the future of human health.

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 Trillion Gene Atlas to, among other things, expand metagenomic sequencing to support scaling AI- designed therapeutics and enable a new generation of AI systems capable of designing transformative medicines, sequence 100,000 samples, create the largest and most diverse metagenomic dataset, provide a strong foundation for AI model training, expand evolutionary diversity 100-fold, build biological models that operate across environmental and human systems; Revio and SPRQ-Nx as the go-to platform for production-scale, high-fidelity long-read sequencing to advance the next generation of biological foundation models and AI-driven design; 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 sequencing a large number of genomes and complying with evolving international privacy compliance requirements; the difficulty of generating discoveries in new areas of research or with respect AI model training; 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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