First Effort to Integrate PacBio HiFi Whole Genome Sequencing in Newborn Screening Launches in Thailand

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Collaboration leverages HiFi's unique ability to reveal hidden variants, bringing a new level of precision to early life genetic screening

MENLO PARK, Calif. and BANGKOK, May 05, 2025 (GLOBE NEWSWIRE) -- PacBio (Nasdaq: PACB) a leading provider of high-quality, highly accurate sequencing platforms, and Chulalongkorn University, a national leader in genomic and translational research, today announced a strategic collaboration to implement PacBio HiFi whole genome sequencing (WGS) as part of a newborn screening research program. This marks the first initiative in Asia Pacific to explore the use of PacBio's HiFi sequencing technology at population scale - an effort designed to evaluate how comprehensive genomic data can support earlier, more accurate identification of rare and treatable conditions in newborns. The collaboration highlights Thailand's growing leadership in precision medicine and offers a potential model for countries seeking to modernize newborn screening with genome-wide approaches.

"Our shared goal is to establish a robust and scalable research model for genomic newborn screening that helps uncover the genetic basis of undiagnosed conditions from birth," said Professor Vorasuk Shotelersuk from the Center of Excellence for Medical Genomics, Chulalongkorn University, Thailand. "We are excited to work with PacBio to bring this vision closer to reality for families in Thailand."

Traditional newborn screening programs have relied on targeted panels that detect a limited subset of conditions based on specific molecular pathologies. Recent advances in genome sequencing now make it possible to take a broader, more comprehensive approach, starting at birth. PacBio's HiFi WGS leverages long-read technology to generate highly accurate, complete genomic data, including regions that are typically inaccessible to short-read methods. In addition to resolving structural variants and repeat expansions, HiFi WGS captures epigenomic information in parallel, giving researchers a multidimensional view of the genome. This level of detail opens the door to identifying a wider range of genetic variants, many of which are implicated in early-onset and rare diseases that previously went undetected.

"Every child deserves the best possible start to life, and that begins with giving families and clinicians access to comprehensive genomic information from the very beginning," said Christian Henry, President and Chief Executive Officer of PacBio. "This collaboration demonstrates how advanced sequencing technologies like HiFi can enable broader insights at birth. It's deeply aligned with our mission at PacBio to make high-quality genomic information accessible where it's needed most, and we're proud to support Chulalongkorn University and Thailand as they lead the way in laying the foundation for a new model of care."

This collaboration positions Thailand as a regional leader in population-scale genomics and reflects Asia Pacific's expanding influence in the global genomics landscape. With an established foundation in public health and translational research, Thailand is uniquely prepared to explore how whole genome sequencing can enhance national healthcare strategies, beginning with newborn screening. By applying PacBio's HiFi long-read sequencing to this early-stage initiative, researchers gain a more comprehensive view of the genome, enabling the detection of variants that are often missed by traditional methods. The ability to capture a wider spectrum of genetic risk at birth sets a new benchmark for the potential of early disease detection, while also contributing to broader goals in carrier screening and public health planning. For Thailand, this project strengthens its role in advancing precision medicine and lays critical groundwork for future data-sharing frameworks and cross-border research collaborations that can inform more equitable and effective genomic healthcare worldwide.

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 stem from two highly differentiated core technologies focused on accuracy, quality and completeness which include our HiFi long-read sequencing and our SBB® short-read sequencing technologies. Our products 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 Faculty of Medicine, Chulalongkorn University in Thailand

Chulalongkorn University is the oldest national university in the Kingdom of Thailand. The university has been active in international research activities and is committed to creating knowledge and innovation to transform Thai society into a creative and sustainable future. As part of the university's mission is to contribute the knowledge gained to the sustainable development of the country and society, the Faculty of Medicine is also actively involved in sharing knowledge with society through collaboration between industry, government, and academia.
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Forward-Looking Statements

This press release contains "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 uses, advantages, quality or performance of, the benefits or expected benefits of using, PacBio products or technologies, including in connection with Thailand's efforts to integrate PacBio products into newborn screening; establishing a research model that may uncover the genetic basis of undiagnosed conditions, improve outcomes, ease uncertainty or offer answers earlier, and other future events. You

should not place undue reliance on forward-looking statements because they are subject to assumptions, risks, and uncertainties that could cause actual outcomes and results to differ materially from currently anticipated results. These risks include, but are not limited to, risks inherent in developing and commercializing new technologies; rapidly changing technologies and extensive competition in 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; and other risks associated with general macroeconomic conditions and geopolitical instability. 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, including PacBio’s preliminary unaudited financial information and PacBio’s financial guidance, 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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