

NEWS RELEASE

PacBio Announces the HiFi Solves Sub-fertility Consortium in Asia Pacific

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Collaboration Aims to Harness HiFi Sequencing to Improve Diagnosis and Treatment of Subfertility and Recurrent Pregnancy Loss

SINGAPORE, Sept. 11, 2024 (GLOBE NEWSWIRE) -- The HiFi Solves Sub-fertility Consortium, an innovative collaboration involving five leading centers across the Asia-Pacific region, announces work aimed at redefining the landscape of fertility research. Utilizing PacBio HiFi long-read sequencing, the consortium, led by KK Women's and Children's Hospital (KKH) in Singapore, is pioneering the use of PacBio HiFi long-read sequencing to enhance the diagnosis and treatment of subfertility and recurrent miscarriages (RPL).

The HiFi Solves Sub-fertility Consortium integrates DNASTack's federated data platform, the world's first solution to enable the creation and analysis of global federated networks of data in compliance with industry standards set by the Global Alliance for Genomics & Health. This platform allows for seamless global collaboration on complex datasets without the need to move the data, ensuring sensitive genomic information remains secure while supporting efficient analysis and compliance with regional data governance.

Under the leadership of Associate Professor Saumya S. Jamuar, the consortium brings together esteemed experts: Professor Vorasuk Shotelersuk from the Center of Excellence for Medical Genomics, Chulalongkorn University, Thailand; Professor Ming Chen from Changhua Christian Hospital Medical Center, Taiwan; Assistant Professor Jee Soo Lee from Seoul National University College of Medicine (SNUCM) Laboratory Medicine, South Korea; and Associate Professor Sohyun Hwang, CHA Bundang Medical Center, CHA University School of Medicine, South Korea. Together, they are breaking new ground in fertility research with the goal of revolutionizing care for millions affected by subfertility and RPL globally.

"The formation of the HiFi Solves Sub-fertility Consortium is a significant step forward in fertility research," said Christian Henry, President and Chief Executive Officer of PacBio. "By bringing together leading experts and leveraging the power of HiFi sequencing along with DNAstack's federated data platform, we are poised to make substantial advancements in the diagnosis and treatment of subfertility and recurrent pregnancy loss."

Subfertility affects approximately one in six people globally, while RPL impacts 1-2% of women, often resulting in considerable psychological and financial strain. The consortium is harnessing the capabilities of PacBio HiFi sequencing technology to tackle these challenges head-on. Unlike traditional methods—such as karyotyping, chromosomal microarray, and whole-exome sequencing—HiFi sequencing offers a comprehensive, high-resolution approach that identifies complex chromosomal rearrangements and sub-microscopic abnormalities that other technologies may miss.

This holistic view allows for a more precise characterization of chromosomal changes, particularly beneficial in cases of subfertility and RPL where multiple genetic factors may be involved.

The consortium's research is poised to significantly reduce the often-frustrating 'diagnostic odyssey' that many patients endure, offering a more streamlined and effective pathway to diagnosis and care. This initiative is expected to greatly enhance the success of assisted reproductive technologies, such as preimplantation genetic testing for structural rearrangements, leading to improved conception rates and healthier pregnancies.

Spanning through the end of 2025, the consortium's phased approach includes patient recruitment, advanced sequencing, bioinformatics analysis, and rigorous validation of results. Beyond its immediate impact, the consortium aims to influence clinical practices globally, contributing to peer-reviewed publications and presenting breakthroughs at international conferences.

This ambitious project represents a significant leap forward in the application of genomic medicine to reproductive health, with the potential to deliver profound benefits to individuals facing these challenging conditions, underscoring the transformative power of collaborative research and advanced genomic technologies in addressing complex health issues.

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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 KK Women's and Children's Hospital (KKH) in Singapore

KK Women's and Children's Hospital (KKH) is Singapore's largest tertiary referral centre for obstetrics, gynaecology, paediatrics and neonatology. The academic medical centre specialises in the management of high-risk conditions in women and children.

Driven by a commitment to deliver compassionate, multidisciplinary care to patients, KKH leverages research and innovation to advance care. In 2021, the hospital launched the SingHealth Duke-NUS Maternal and Child Health Research Institute (MCHRI) to support the growth of every woman and child to their fullest potential, and transform national health in the region.

Some of the hospital's breakthroughs include uSINE®, a landmark identification system for the administration of spinal epidural, the discovery of new genetic diseases like Jamuar Syndrome, and a series of guidelines for women and children to improve population health.

The academic medical centre is also a major teaching hospital for Duke-NUS Medical School, Yong Loo Lin School of

Medicine and Lee Kong Chian School of Medicine. In addition, KKH runs the largest specialist training programme for Obstetrics and Gynaecology, and Paediatrics in Singapore.

KKH was founded in 1858 and celebrates its 100th year as a maternity hospital in 2024. For more information, visit www.kkh.com.sg

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About DNAstack

DNAstack is a Canadian company whose mission is to save and improve lives by unlocking the collective power of the world's genomics and health data. Omics AI is a software suite by DNAstack that enables privacy-preserving federated insights across distributed data. DNAstack is a global leader in the development of open, interoperable standards as part of the Global Alliance for Genomics & Health (GA4GH).

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 uses, coverage, advantages, quality or performance of, or benefits or expected benefits of using, PacBio products or technologies, including in connection with the HiFi Solves Sub-fertility Consortium research and its efforts to improve the research, diagnosis and treatment of female infertility; efforts to reduce the diagnostic odyssey and enhance the success of assisted reproductive technologies; 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 the difficulty of generating discoveries across various areas of research; potential product performance and quality issues; 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 international operations. 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.

Source: PacBio