Estonia National Biobank Selects PacBio to Sequence 10,000 Whole Genomes

March 27, 2024 at 8:00 AM EDT

HiFi Data Generated on the Revio™ System will Support the EU and Estonian Government-Funded Center for Personalized Medicine and Unlock Discoveries Across Cardiology, Mental and Reproductive Health, Drug Response, Cancer Research and Rare Diseases

MENLO PARK, Calif., March 27, 2024 /PRNewswire/ -- PacBio (NASDAQ: PACB), a leading developer of high-quality, highly accurate sequencing solutions, today announced that the University of Tartu, host of Estonia's National Biobank, has chosen the Revio HiFi sequencing system to sequence 10,000 whole human genomes and unlock new insights from its populational health data. The announcement follows funding from the European Commission and the Estonian government to help Estonia adopt personalized medicine at scale and adapt public health systems to the biology of its population. The University will also support the European Union's 1+ Million Genomes initiative, which seeks to boost innovation in healthcare across Europe.

10,000 whole human genomes will be sequenced and analyzed by the Institute of Genomics at the University of Tartu using Revio. The data are expected to drive a new level of understanding about the genetics of cardiovascular disease, mental, reproductive and female health, cancer and rare diseases, and treatment outcomes. The institute has purchased three Revio systems, allowing them to reach their target of 10,000 genomes in the next two and a half years.

"The 10,000 long-read whole genomes will bring a new dimension of insight into the genetics of the Estonian population and push us closer to the Biobank's goal of realizing health benefits for people locally and internationally. We're particularly excited about the possibilities for researching polygenic risk scores for cardiovascular disease and cancer, as well as predicting patients' responses to medications based on their genetic makeup," said **Lili Milani, Head of the Estonian Biobank and Professor of Pharmacogenomics at the University of Tartu, Estonia**. "The trial samples we received from PacBio were unmatched in terms of quality and genome coverage. We considered several other technologies but were most impressed by the high degree of accuracy, read length and multiomic insight of Revio. Combined with the greater affordability of Revio, it became the clear choice to support our goals."

Founded in 2000, the Estonian Biobank holds more than 212,000 samples – 20% of the country's adult population – reflecting its age, sex, and geographical distribution. To date, the samples for the Biobank have been genotyped using microarray-based methods. However, data generated via this method are lower resolution, had limited scope for detecting complex or unknown variants, and rely on reference genomes, meaning results may be biased towards participants from well-represented demographics.

The 10,000 new whole genomes sequenced using Revio will afford more diverse data and enable researchers to analyze complex variations, including repetitive regions and pseudogenes. Revio also offers researchers access to the epigenome; this second layer of genomic information is often unexplored, but has noteworthy implications for oncology since aberrant changes in methylation status are characteristic of many cells.

"I am delighted that the researchers at the University of Tartu have selected Revio for their multi-year, 10,000-sample project in Estonia," **said Christian Henry, President and Chief Executive Officer of PacBio.** "The team chose PacBio HiFi technology over other long- and short-read offerings because of its ability to sequence complete and accurate genomes at competitive economics and scale. This project is yet another example of Revio's ability to deliver customers a differentiated solution in large, multi-thousand-sample whole genome sequencing projects."

In addition to this 10,000-genome project, the Biobank team is looking to secure funding to sequence the entire biobank of over 200,000 samples to drive advances in health care globally.

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.

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 Revio and its ability to sequence complete and accurate genomes at competitive economics and scale; anticipated number of whole human genomes to be sequenced and related discoveries across cardiology, mental and reproductive health, drug response, cancer research and rare diseases, impact on innovation in healthcare across Europe, and enabling researchers to analyze complex variations; 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 whole human genomes, and the difficulty of generating discoveries across various areas of research and impacting innovation in healthcare across Europe; the impact of U.S. export restrictions on the shipment of PacBio products to certain countries; 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; 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.

Contacts

Investors:
Todd Friedman
ir@pacificbiosciences.com

Media:
Lizelda Lopez
pr@pacificbiosciences.com

View original content to download multimedia:https://www.prnewswire.com/news-releases/estonia-national-biobank-selects-pacbio-to-sequence-10-000-whole-genomes-302100822.html

SOURCE Pacific Biosciences of California, Inc.