PacBio Announces SPRQ Chemistry for Revio Sequencing Systems, a Major Advance Reducing the Cost of a HiFi Human Genome to less than $500

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New long-read sequencing chemistry reduces DNA input requirements four-fold, enables a 33% increase in data output per SMRT Cell, improves methylation calling, and expands support for multiomics

MENLO PARK, Calif., Oct. 29, 2024 (GLOBE NEWSWIRE) -- PacBio (NASDAQ: PACB), a leading developer of high-quality, highly accurate sequencing solutions, today announced SPRQ, an improved sequencing chemistry for its Revio™ long-read sequencing system. The new chemistry will reduce Revio DNA input requirements by 4x to 500ng per sample, which enables more sample types such as saliva extracted with PacBio's new Nanobind protocol and tumor samples to be sequenced with HiFi sequencing technology. It will also increase the Revio system's output, which together with improved analysis methods, enables customers to reduce their sequencing cost per genome by up to 50 percent. Paired instrument software enhancements will also improve the accuracy of methylation calling and add detection of new types of methylation marks providing customers with a rich, multiomic view of every sample.

"We've seen tremendous demand for Revio systems over the last two years as many more researchers have discovered the superiority of HiFi technology in population sequencing and other human and non-human sequencing applications," said Christian Henry, President and Chief Executive Officer of PacBio. "Our team has achieved significant breakthroughs which significantly improves the performance and reduces the cost of a HiFi human genome to less than $500 per sample. The SPRQ chemistry opens the possibility for more samples to be sequenced using Revio systems. This chemistry is compatible with all Revios in the field with just a very simple software update. Its launch is a true inflection point for PacBio–setting a new trajectory of customer adoption and scientific discovery."

The SPRQ chemistry will increase the efficiency of loading on Revio SMRT Cells, reducing DNA input requirements to just 500 ng, a four-fold reduction. The chemistry will also improve sequencing performance, providing a 33% increase in sequencing yield per SMRT Cell. Collectively, these enhancements will enable each Revio instrument to sequence up to 2,500 human whole genomes per year at a cost of just under $500 per human genome.

"Increased yields and reduced input requirements are a big win for our user community," said Niall Lennon, Chair and Chief Scientific Officer of Broad Clinical Labs. "In studies where we had many samples that we could not have generated long reads on before, we were able to rescue 80% of these samples using the SPRQ chemistry. Higher success rates and lower costs for long read data generation increases access to a wider range of scientific applications and accelerates the pace of discovery."

In addition, a SMRT Link and instrument software upgrade paired with the release of SPRQ chemistry provides new DNA methylation callers that greatly increase the multiomics capabilities of every Revio run. The software brings improved accuracy for calling 5mC, making HiFi sequencing an attractive alternative to methylation arrays. It also adds a new capability to call 6mA, which is used as a marker of open chromatin in the Fiber-seq assay, providing DNA, methylation, and chromatin accessibility all from a single DNA input and sequencing run.

"Our lab's Fiber-seq assay adds chromatin accessibility to the multiomic view of a genome provided by HiFi sequencing. Fiber-seq is seeing growing use in pangenome research, rare disease research, and in the study of somatic variation. We are excited to see an accurate 6mA caller on the Revio system to simplify the computational analysis of Fiber-seq chromatin stencils and support further adoption," said Andrew Stergachis, MD, PhD, Associate Professor, Medical Genetics at University of Washington.

PacBio will present data on the new SPRQ chemistry at a workshop at the American Society of Human Genetics annual meeting taking place in Denver, Colorado, November 5-9, 2024. The workshop on November 8, 2024 from 12:00-1:00 p.m. MST in rooms 109-111-113, "A new era in rare disease research: integrating HiFi sequencing into clinical practice and population genomics," will feature speakers including David Miller, Vice President Global Marketing at PacBio, Michael Eberle, Ph.D., Vice President Computational Biology at PacBio, Carol Saunders, Ph.D., FACMG, Division Director, Clinical & Laboratory Genetics & Genomics, Children's Mercy Kansas City, and Mait Metspalu, Ph.D., Director, Institute of Genomics, Estonian Biocentre. The company will also be exhibiting all week at booth #725.

The SPRQ chemistry and SMRT Link software are available for order starting immediately and will begin shipping in December 2024. To learn more visit https://programs.pacb.com/ashg2024.

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 expected release date, uses, coverage, advantages, or quality or performance of, or benefits or expected benefits of using, PacBio products or technologies, such as expected release date of SPRQ, anticipated reductions in DNA input requirements and the cost of a HiFi genome to less than $500 per sample, increases in data output, types and accuracy of methylation calling, chromatin accessibility, types of

samples that can be used for analysis, number of sequenced whole genomes per year, and the related insights into multiomics; new trajectory of customer adoption and scientific discovery; 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 developing a new product, 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.

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