



January 9, 2017

UPDATE -- Pacific Biosciences Improves Key Applications on the Sequel System with New Chemistry and Software Release

Structural Variant Detection, De Novo Assembly and Targeted Sequencing Applications Improved

MENLO PARK, Calif., Jan. 09, 2017 (GLOBE NEWSWIRE) -- Pacific Biosciences of California, Inc. (Nasdaq:PACB) today announced a new version of chemistry (V2) and software (V4) for the Sequel™ System. The new release improves the system's ability to support important applications such as structural variant detection and targeted sequencing—including metagenomics, minor variant detection and isoform sequencing—by achieving mean read lengths of 10-18 kb, with half of the data in reads > 20 kb, and throughput of 5-8 Gb, depending on the sample type and preparation method used. In addition to these applications, the high consensus accuracy, uniform coverage, and long reads inherent to the Sequel System continue to make it ideal for applications such as *de novo* genome assembly. Along with the performance improvements, the system is now capable of loading 80 kb sequencing libraries.

The Sequel System is PacBio's latest platform based on its Single Molecule, Real-Time (SMRT®) Sequencing technology. Since the launch of the system in fall of 2015, PacBio has installed more than 110 Sequel Systems globally. The latest release includes a new version of the consumable SMRT Cells that is optimized for the new sequencing chemistry kits. The company has also made updates to its base calling algorithm that increase accuracy, and added new features in the Sequel System software package to help support clinical research applications. The V2 chemistry and V4 software updates will be available on January 23, 2017.

This release improves users' ability to perform low-fold structural variant detection and key targeted sequencing applications. For structural variant detection, customers can now accomplish the same or better quality of results for structural variant analysis using, on average, half the number of SMRT Cells compared to the previously available chemistry. The increase in read length provided by the new chemistry also enables the detection of larger-scale structural variants; in particular, there is a 3-fold increase in sensitivity of insertions over 5 kb. For targeted sequencing, the new chemistry and software gives users more flexibility. For example, for minor variant detection, customers can either gain detection sensitivity or reduce cost per sample with increased sample multiplexing.

"This release is part of our continued commitment to increasing the performance of the Sequel System, and we are very pleased with the data we are seeing both internally and at our beta-test sites," said Kevin Corcoran, Senior Vice President of Market Development for Pacific Biosciences. "We are focused on improving the key applications for our customers where SMRT Sequencing provides unique advantages. And, by increasing throughput, we are making projects more cost effective."

More information about Sequel is available at: <http://www.pacb.com/sequel/>.

About Pacific Biosciences

Pacific Biosciences of California, Inc. (NASDAQ:PACB) offers sequencing systems to help scientists resolve genetically complex problems. Based on its novel Single Molecule, Real-Time (SMRT®) technology, Pacific Biosciences' products enable: *de novo* genome assembly to finish genomes in order to more fully identify, annotate and decipher genomic structures; full-length transcript analysis to improve annotations in reference genomes, characterize alternatively spliced isoforms in important gene families, and find novel genes; targeted sequencing to more comprehensively characterize genetic variations; and real-time kinetic information for epigenome characterization. Pacific Biosciences' technology provides high accuracy, ultra-long reads, uniform coverage, and is the only DNA sequencing technology that provides the ability to simultaneously detect epigenetic changes. PacBio® sequencing systems, including consumables and software, provide a simple, fast, end-to-end workflow for SMRT Sequencing. More information is available at www.pacb.com.

Forward-Looking Statements

All statements in this press release that are not historical are forward-looking statements, including, among other things, statements relating to product improvements, updates or new features, future availability, uses, quality or performance of, or benefits of using, products or technologies, and other future events. You should not place undue reliance on forward-looking statements because they involve known and unknown risks, uncertainties, changes in circumstances and other

factors that are, in some cases, beyond Pacific Biosciences' control and could cause actual results to differ materially from the information expressed or implied by forward-looking statements made in this press release. Factors that could materially affect actual results can be found in Pacific Biosciences' most recent filings with the Securities and Exchange Commission, including Pacific Biosciences' most recent reports on Forms 8-K, 10-K and 10-Q, and include those listed under the caption "Risk Factors."

Pacific Biosciences undertakes no obligation to revise or update information in this press release to reflect events or circumstances in the future, even if new information becomes available.

Contacts

Media:

Nicole Litchfield

415.793.6468

nicole@bioscribe.com

Investors:

Trevin Rard

650.521.8450

ir@pacificbiosciences.com

 [Primary Logo](#)

Source: Pacific Biosciences, Inc.

News Provided by Acquire Media