



Pacific Biosciences Reports Progress Toward Providing the Premier Third Generation DNA Sequencing Solution

Data and Results from Collaborations to be Presented at AGBT; Company Announces 13 New Members of Partner Program

MENLO PARK, Calif. & MARCO ISLAND, Fla.--(BUSINESS WIRE)-- Joining other industry leaders at the 12th annual Advances in Genome Biology and Technology Conference (AGBT), Pacific Biosciences of California, Inc. (NASDAQ:PACB) today provided an update on its progress toward providing the premier complete solution to customers for third generation DNA sequencing applications.

"We are entering the later stages of our limited production release (LPR) program, and have begun upgrading the beta instruments to the commercial hardware configurations," said Hugh Martin, Chairman and CEO of Pacific Biosciences. "In the months ahead, we expect to continue the optimization of the chemistry, perform verification and validation of the system, and provide software upgrades. We are on track to complete this work and expect to begin shipping the commercial instruments in the first half of 2011."

Data generated using the PacBio RS system by early collaborators and customers as well as Pacific Biosciences scientists will be presented in eleven posters, four scientific sessions, and during the company's commercial workshop at AGBT. Highlights of work completed as part of the Partner Program include a collaboration with RainDance Technologies and the University of Pennsylvania to prepare HIV samples using RainDance's RainStorm™ microdroplet-based PCR platform and PacBio's SMRTbell™ template preparation methods for sequencing on the PacBio RS.

"In my lab we are characterizing HIV splice variants to understand mechanisms of viral replication," said Frederic Bushman, Ph.D., Professor of Microbiology at the University of Pennsylvania. "Using targeted and third generation DNA sequencing techniques we have identified a collection of new splice variants of HIV that may encode novel proteins."

"Infectious disease research is a key application that stands to benefit from the advantages of the PacBio RS system," commented Eric Schadt, Ph.D., Chief Scientific Officer of Pacific Biosciences. "In addition to the collaboration with UPenn and RainDance on HIV, data will be presented at AGBT by Gen-Probe using our system to better characterize HCV and HLA, and I will present further details about our work to rapidly sequence the Haitian cholera pathogen."

"Whether it is for monitoring drug resistance in Hepatitis C or AIDS patients, elucidating the cloud of virus that exists in patient samples, or real-time monitoring of pathogens over broad geographic regions to predict outbreaks, Single Molecule Real Time (SMRT™) sequencing enables a new era of molecular epidemiology," he added.

First announced in conjunction with last year's AGBT conference, the Pacific Biosciences Partner Program has continued to evolve to span key synergistic areas of the PacBio RS sequencing workflow including consumables, automation systems, complementary instrumentation, services and supporting software and hardware. The company announced the following new partners:

- Automation and microfluidics: Beckman Coulter, Hamilton Company, and Tecan Group Ltd.
- Shearing and fragmentation: Covaris, Diagenode, Digilab, and Microsonic Systems
- Size selection: Sage Science
- Data analysis and cloud computing: Biomatters Limited, DNAnexus, DNASTAR, Galaxy, and Genomatix Software

As an example of a solution created using the application programming interfaces (APIs) available through PacBio's Developer's Network (DevNet), Anton Nekrutenko, Ph.D. from Penn State University, and James Taylor, Ph.D. from Emory University, developers of Galaxy, will share how they have used the scalable, open-source tools, and APIs available through DevNet to integrate the PacBio workflow into their popular data management and analysis tool. The [solution](#) provides status and traceability from sample submission to post-processing and integrates with existing analysis pipelines such as variant/SNP calling.

A description of the Partner Program and full list of companies participating can be found on the PacBio website: http://www.pacificbiosciences.com/community/partner_program. More information about the company's activities at this week's AGBT conference can be found at <http://pacificbiosciences.com/AGBT2011/>.

About Pacific Biosciences

Pacific Biosciences' mission is to transform the way humankind acquires, processes and interprets data from living systems through the design, development and commercialization of innovative tools for biological research. The company has developed a novel approach to studying the synthesis and regulation of DNA, RNA and proteins. Combining recent advances in nanofabrication, biochemistry, molecular biology, surface chemistry and optics, Pacific Biosciences has created a powerful technology platform called single molecule, real-time, or SMRT™, technology. SMRT technology enables real-time analysis of biomolecules with single molecule resolution, which has the potential to transform the understanding of biological systems by providing a window into these systems that has not previously been open for scientific study.

This press release contains forward-looking statements relating to our plans to continue to optimize the chemistry, perform verification, and validation of the system, and provide software upgrades and to begin shipping in the first half of this year. Forward-looking statements may contain words such as "believe," "may," "estimate," "anticipate," "continue," "intend," "expect," "plan," the negative of these terms, or other similar expressions, and include the assumptions that underlie such statements. These statements are subject to known and unknown risks and uncertainties that could cause actual results to differ materially from those expressed or implied by such statements, including but not limited to risks discussed from time to time in documents we have filed with the Securities and Exchange Commission, including the risks identified under the section captioned "Risk Factors" in our most recently filed Form 10-Q.

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