

August 23, 2010



Pressure BioSciences, Inc. to Collaborate With the Lawrence Berkeley National Laboratory on the Analysis of Microorganisms in Oil Spills: Results Could Lead to Improved Strategies for Environmentally-Safe Clean-up

SOUTH EASTON, Mass., Aug. 23, 2010 (GLOBE NEWSWIRE) -- Pressure BioSciences, Inc. (Nasdaq:PBIO) ("PBI" and "the Company") today announced a collaboration with the Lawrence Berkeley National Laboratory ("LBNL"). Scientists at LBNL are using the Company's pressure cycling technology ("PCT") platform in studies aimed at improving the analysis of microorganisms in environments with low biomass, such as oil reservoirs or deep sea oil plumes from oil spills. It is possible that improved microbe analysis may lead to better strategies for oil spill clean-up. LBNL's successful use of the Company's PCT-based products over the past few months has led to this collaboration.

Since 1967, there have been nearly 50 major oil spills in 19 countries, many of which were designated as "environmental disasters". The effects of an oil spill -- no matter the size -- can be devastating on both marine and coastal life. Consequently, rapid and effective clean-up, based in part on a thorough understanding of the biological changes, effects, and consequences of an oil spill, is essential to help minimize both short and long-term damage.

Dr. Janet Jansson, Senior Staff Scientist in the Earth Sciences Division of LBNL, said: "The recent oil spill in the Gulf of Mexico has resulted in an enormous environmental catastrophe, necessitating an unprecedented clean-up effort. Multiple strategies have been used -- including chemical dispersants, skimming, booms, and controlled burns. However, one of the most promising -- and environmentally safest -- strategies is to rely on natural microorganisms to degrade the oil before it can accumulate."

Dr. Jansson continued: "A team of scientists from LBNL has launched a major effort to collect samples from Gulf waters near the oil spill, to monitor the microbial degradation process and the potential for natural microbial clean-up of the oil. Due to the low number of microorganisms in these samples, LBNL scientists need to use the best, most sensitive sample preparation methods to analyze these important but challenging samples. To that end, we have chosen to use Pressure BioSciences' PCT-based products in this project, because they result in greater nucleic acid and protein yields from low concentrations of microorganisms, as compared to other methods."

Dr. Olivia Mason, a post-doctoral researcher in Dr. Jansson's laboratory, commented: "In an effort to develop technologies that utilize indigenous microorganisms in enhancing oil

recovery, we are using a systems biology approach to characterize the microbial communities associated with oil reservoirs. Similarly, we are attempting to characterize the microbial communities in a deep-sea oil plume, to determine their role in bioremediation, and to use this knowledge to develop effective strategies for future oil spill clean-ups. Such analysis requires the use of cutting-edge methods that allow for unprecedented insights into microorganisms that exist in very low concentrations in such environments. PBI's PCT-based products have been shown to significantly increase the yield of DNA and to extract a greater microbial diversity from such samples. Thus, they have become a sample preparation method of choice for our laboratory."

Dr. Nate Lawrence, Vice President of Marketing for PBI, said: "We are installing three additional NEP3229 PCT Sample Preparation Systems at LBNL under an initial, six-month reagent rental program, to be used alongside of their recently purchased NEP3229 PCT System. We will also support our colleagues at LBNL with advice based on our extensive experience in high pressure engineering and biology. The work they are doing is extremely important, and we are pleased and honored to be part of their program."

Dr. Lawrence concluded: "This collaboration is the result of a high quality PBI customer expanding the use of our PCT-based product line in a new and important area. We believe that there are many of other laboratories performing similar work to LBNL. Since oil spills will continue to occur, it is important for these labs to develop new, environmentally-sound, microorganism-based clean-up strategies. The credibility provided by our LBNL relationship and the PCT-based applications they have already shown are possible, is expected to provide additional sales opportunities in the near future."

About Pressure BioSciences, Inc.

Pressure BioSciences, Inc. (PBI) is a publicly traded company focused on the development and sale of instruments and consumables based on a novel, enabling technology called Pressure Cycling Technology (PCT). PCT uses cycles of hydrostatic pressure between ambient and ultra-high levels (up to 35,000 psi and greater) to control bio-molecular interactions. PBI currently holds 14 U.S. and 10 foreign patents covering multiple applications of PCT in the life sciences field, including genomic and proteomic sample preparation, pathogen inactivation, the control of chemical and enzymatic reactions, immunodiagnostics, and protein purification. PBI currently focuses its efforts in the development and sale of PCT-enhanced enzymatic digestion products designed specifically for the mass spectrometry marketplace, as well as sample preparation products for biomarker discovery, soil and plant biology, forensics, histology, and counter-bioterror applications.

Forward Looking Statements

Statements contained in this press release regarding PBI's intentions, hopes, beliefs, expectations, or predictions of the future are "forward-looking" statements within the meaning of the Private Securities Litigation Reform Act of 1995. Such forward looking statements include statements regarding the advantages of PCT in processing samples from oil reservoirs and oil plumes, including the extraction of significantly more nucleic acids and proteins than other available methods, and the extraction of a greater microbial diversity from such samples; that improved microbe analysis may lead to better strategies for oil spill clean-up; the use of natural microorganisms to degrade oil before it accumulates; the

number of laboratories performing studies similar to the scientists at LBNL; and the additional sales opportunities that may result from the collaboration with LBNL. These statements are based upon PBI's current expectations, forecasts, and assumptions that are subject to risks, uncertainties, and other factors that could cause actual outcomes and results to differ materially from those indicated by these forward-looking statements. These risks, uncertainties, and other factors include, but are not limited to: possible difficulties, delays and additional costs in the implementation of PBI's strategies that may adversely affect the commercialization of PCT and PCT-dependent products, including PBI's plan to focus on laboratories performing studies similar to LBNL; the collaboration with LBNL may not result in generating data that supports the advantages of PCT for microbe analysis, and LBNL continuing with the reagent rental program after the initial six-month period; changes in customer needs and technological innovations; other scientists may not achieve the same PCT results reported by LBNL; and PBI's sales force may not successfully sell the PCT product line because scientists may not perceive the advantages of PCT for releasing proteins and nucleic acids in microorganisms in oil reservoirs and oil plumes. Further, the Company expects that it will need additional capital to fund its continuing operations beyond the first quarter of 2011. Additional risks and uncertainties that could cause actual results to differ materially from those indicated by these forward-looking statements are discussed under the heading "Risk Factors" in PBI's Annual Report on Form 10-K for the year ended December 31, 2009, and other reports filed by PBI from time to time with the SEC. PBI undertakes no obligation to update any of the information included in this release, except as otherwise required by law.

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