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Pressure BioSciences, Inc. Announces the Release of Key Products Targeted Primarily at the Drug Discovery and Development Market

SOUTH EASTON, Mass., Dec. 13, 2010 (GLOBE NEWSWIRE) -- Pressure BioSciences, Inc. (Nasdaq:PBIO) ("PBI" and the "Company") today announced the release for sale of three novel products targeted primarily for the drug discovery and development market. The new products were released at the 50th Annual Meeting of the American Society for Cell Biology ("ASCB") in Philadelphia, which began on Sunday December 12, 2010.

The ASCB is comprised mostly of biologists studying the cell – the fundamental unit of life. Approximately 10,000 attendees from academia, government, the biotechnology industry, and pharmaceutical companies are expected at the Annual Meeting. The Company believes its new products will be well received by the scientists attending the Annual Meeting, particularly those working in the drug discovery and development area.

Two of the Company's new products are focused on the isolation of mitochondria from solid tissues – skeletal muscle and lung ("mitochondrial kits"). The third new product is a small, portable instrument ("The SHREDDER SG3") developed in conjunction with the mitochondrial kits, to allow for a safe, rapid, efficient, and standardized method to isolate mitochondria from human and animal cells. The SHREDDER SG3 uses a similar, proprietary consumable as the Company's pressure cycling technology ("PCT") platform. The Company believes that in addition to the use of this instrument with the new mitochondrial kits, The SHREDDER SG3 can also be used for a multitude of other sample preparation processes by an estimated 80,000 research laboratories and 450,000 research scientists working in the biological sciences worldwide.

Mitochondria and Mitochondrial Kits. Mitochondria are small structures found inside most human and animal cells. They play a major role in generating the energy required to power most cell processes and are involved in other important cell functions. Mitochondria have been implicated in several human diseases, including heart disease, stroke, Parkinson's disease, cancer, and other mitochondrial diseases. Mitochondria might also play a role in aging. PBI's newly released mitochondrial kits contain all of the chemical ingredients necessary for a scientist to extract mitochondria from skeletal muscle and lung tissue for subsequent analysis.

The SHREDDER SG3. The SHREDDER SG3 is small, portable mechanical system that can be used to break apart tough, fibrous, and other difficult-to-disrupt tissues, such as skeletal muscle and lung. The SHREDDER SG3 can also be used to break apart tough organisms, such as ticks and nematodes (worms). Although tough enough to do the foregoing, it is also gentle enough to break apart cells to release mitochondria for subsequent study. The

SHREDDER SG3uses proprietary consumable processing containers that can be subsequently placed inside the Company's PCT-based instruments for further processing.

Dr. Vera Gross, Senior Research Scientist at PBI, and an expert in cell biology, said: "The extraction of mitochondria from solid tissue, such as lung and skeletal muscle, is currently done using labor-intensive methods that require extensive operator experience, usually resulting in high variability among researchers. Our new mitochondrial kits, when paired with The SHREDDER SG3, offer researchers a semi-automated, rapid, and reproducible method that we believe will generate high quality mitochondria preparations for analysis."

Dr. Nathan Lawrence, Vice President of Marketing for PBI, commented: "The study of mitochondria has gained much importance over the past few years as the association between mitochondrial dysfunction and significant human diseases has been shown. Data from more than 50 mitochondria studies are slated for presentation over the four days of the ASCB Annual Meeting. We are therefore pleased to introduce our new mitochondrial kits and The SHREDDER SG3 to this specific group, as we believe these novel products offer many advantages to current methods for the extraction of mitochondria from skeletal muscle and lung, including convenience, reproducibility, and cost savings. As we enter this new and exciting sample preparation market, we expect these newly-released products to generate revenue, increase interest and sales in our core PCT-based products, and open new doors for PBI during 2011 and beyond."

About Pressure BioSciences, Inc.

Pressure BioSciences, Inc. (PBI) is a NASDAQ Capital Markets listed company focused on the development and sale of instrumentation and consumables based on a novel, enabling technology platform 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 24 issued patents covering multiple applications of PCT in the life sciences field, including genomic and proteomic sample preparation, pathogen inactivation, the control of chemical reactions, immunodiagnostics, and protein purification. PBI currently focuses its efforts on 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 belief that the Company's new products will be well received by attendees at the Annual Meeting of the ASCB; that PBI's new mitochondrial kits contain all necessary chemical ingredients to extract mitochondria for scientific study; the capabilities of the Company's mitochondrial kits and The SHREDDER SG3; that The SHREDDER SG3 can break apart tough samples but is gentle enough to release mitochondria from cells, in a rapid, reproducible, semi-automated fashion; that The SHREDDER SG3 can be used for a multitude of other sample preparation processes; that there are an estimated 80,000 research laboratories and 450,000 research scientists worldwide that undertake such other sample preparation processes; that the study of

mitochondria has gained importance over the past few years; the role of mitochondria in cell functions, human diseases and aging; that the combination of the new mitochondrial kits and The SHREDDER SG3offer many advantages over current methods to extract mitochondria; and that these new products will generate revenue, increase interest and sales in PCT-based products, and open new doors for PBI in 2011. These statements are based upon the Company'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 or delays in the implementation of the Company's strategies that may adversely affect the Company's continued commercialization of PCT and its PCT-dependent products, including its PCT-based mitochondrial kits and The SHREDDER SG3; changes in customer's needs and technological innovations; other scientists may not achieve the same results with the mitochondrial kits and The SHREDDER SG3reported by PBI scientists; and the Company's sales force may not be successful in selling the Company's PCT product line, including the new mitochondrial kits and The SHREDDER SG3, because scientists may not perceive the advantages of PCT over other sample preparation methods for mitochondrial extraction. 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.

Visit us at our website: http://www.pressurebiosciences.com or the PBI-IR Newsroom: http://360.cx/gEPvQB

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