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Pressure BioSciences, LEAP Technologies, Sage-N Research, and Valco Instruments Announce Plans to Co-Develop Next Generation Sample Preparation/Data Analysis Platform for H/D Exchange Mass Spectrometry

Schematic of Proposed Platform to be Unveiled, Discussed, and Promoted by all Four Companies at the 60th Annual ASMS Conference (May 20-24, 2012)

SOUTH EASTON, Mass., CARRBORO, N.C., MILPITAS, Calif. and HOUSTON, Texas, May 21, 2012 /PRNewswire/ -- Pressure BioSciences, Inc. (OTCQB: PBIO) ("PBI"), LEAP Technologies ("LEAP"), Sage-N Research ("Sage-N"), and Valco Instruments ("Valco") today announced plans to co-develop the next generation sample preparation and data analysis platform for H/D exchange mass spectrometry. The companies will unveil a schematic of the proposed platform at the annual American Society for Mass Spectrometry Conference in Vancouver, BC, Canada (May 20-24, 2012). The companies will also co-promote the proposed platform in their exhibit booths during the conference, and afterwards through combined research and development and marketing and sales efforts.

Hydrogen–deuterium exchange (H/D exchange) is a chemical reaction carried out in research laboratories studying proteins in which a hydrogen atom of a protein is replaced by a deuterium atom, or vice versa. This technique can be used to examine changes in the structure of proteins, which in turn can help determine the effects of these structural changes on protein function. The ability to detect, monitor, and understand these changes can be very important in the discovery, design, development, and manufacturing of new drugs and other therapeutics.

The proposed next generation H/D exchange sample preparation and data analysis platform to be developed by the four companies is expected to use LEAP's proprietary robotics and automation equipment, Valco's precise high pressure valves and fittings, PBI's patented pressure cycling technology ("PCT")-based instruments for high quality protein extraction and rapid protein digestion, and Sage-N Research's Integrated Data Appliances ("iDA") with H/D exchange applications for data analysis.

The four companies believe that the number of research laboratories installing H/D exchange capabilities is increasing and will continue to increase significantly in the future. These companies further believe that the combination of their proprietary and patented

technologies, marketing and sales capabilities, experience in the field of proteomics, and expertise in mass spectrometry will result in the development of a new and improved sample preparation and data reduction platform for H/D exchange mass spectrometry. This proposed platform can potentially become the workflow of choice for H/D exchange worldwide, which should result in increased revenue for all four companies.

About LEAP Technologies

LEAP has been providing proprietary robotics and laboratory automation equipment and support for specific applications for over 20 years. LEAP was the first to introduce automated sample handling for H/D exchange applications; currently there are nearly 50 such systems in use around the world. LEAP's PAL-based robotic system with sophisticated control software is widely acknowledged as the instrument of choice for this growing application. The company's automation solutions allow the research scientist to walk away and run their samples unattended (such as overnight). The company has become the automation application "house of choice" to which even the large analytical instrument companies refer their customers. Its name is synonymous with great support and with flexible and innovative ideas. With today's digital communication and fast proliferation of new analytical techniques, LEAP successfully offers its value-added products and services worldwide (world wide support network) through a carefully selected network of smaller companies that share the same spirit.

About Sage-N Research, Inc.

Sage-N Research, Inc. is a world leader in supplying Integrated Data Appliances (iDAs) for proteomics research. The industry-leading SORCERER™ iDAs are plug-and-play productivity systems used by leading life science researchers worldwide to rapidly and accurately identify proteins and protein modifications in biological samples using mass spectrometry data. Founded in 2002, the company is a privately held corporation headquartered in Silicon Valley in California. Through strategic collaborations with leading scientists and companies, Sage-N Research advances the state of the art in ease-of-use applications and technology to enable world-changing discoveries in biology and medicine.

About Valco Instruments.

For 40 years, Valco Instruments Co. Inc. has been the leading designer and manufacturer of standard and custom valves and fittings for precision analytical, biomedical, and biocompatible instrumentation. Valco's product line also includes a wide range of related products such as pneumatic and electric actuators, tubing and sampling loops, heated enclosures, valve sequence and temperature controllers, gas purifiers, GC detectors, and digital interfaces.

About Pressure BioSciences, Inc.

Pressure BioSciences, Inc. ("PBI") (OTCQB: PBIO) is focused on the development, marketing, and sale of proprietary laboratory instrumentation and associated consumables based on Pressure Cycling Technology ("PCT"). PCT is a patented, enabling technology platform with multiple applications in the estimated $6 billion life sciences sample preparation market. PCT uses cycles of hydrostatic pressure between ambient and ultra-high levels to control bio-molecular interactions. PBI currently focuses its efforts on the

development and sale of PCT-enhanced sample preparation systems (instruments and consumables) for forensics, biomarker discovery, bio-therapeutics characterization, vaccine development, soil and plant biology, 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 statements include, without limitation, statements regarding the co-development of the proposed next generation sample preparation and data analysis platform for H/D exchange mass spectrometry; that H/D exchange can be used to examine changes in protein structure, which can subsequently help determine changes in protein function; that the ability to detect, monitor, and understand such changes can be important in the discovery, design, development, and manufacture of new drugs and therapeutics; that the number of labs installing H/D exchange capabilities is increasing and will continue to increase in the future; that the combination of the platforms and capabilities from the four companies will result in a better sample preparation and data analysis platform; that this platform can potentially become the workflow of choice for H/D exchange mass spectrometry laboratories worldwide, and result in increased revenues for all four companies; and statements about each of the four company's products and capabilities. 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: due to unanticipated technical or scientific difficulties or the failure of the proteomics community to acknowledge the advantages of the new, next generation H/D exchange platform, PBI's collaboration with LEAP, Sage-N, and Valco may not achieve the results anticipated by PBI; because of changes in strategy of any one or more of the four companies, the collaboration may not result in the successful development and commercialization of the planned next generation H/D exchange platform; possible difficulties or delays in the implementation of PBI's strategies that may adversely affect PBI's continued commercialization of its PCT-based product line; changes in customer's needs and technological innovations; PBI's sales force may not be successful in selling PBI's PCT product line because scientists may not perceive the advantages of PCT over other sample preparation methods; and PBI may not be successful in raising additional capital necessary on acceptable terms, if at all, to fund PBI's operations beyond May 2012. 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, 2011, and other reports filed by the Company 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.

PBI filed a registration statement (including a prospectus) with the SEC for an offering to which this communication may relate. Before you invest, you should read the prospectus in that registration statement for the offering and other documents PBI has filed with the SEC for more complete information about PBI and the offering. You may get these documents for free by visiting EDGAR on the SEC Web site at www.sec.gov. Alternatively, PBI can arrange to send you the prospectus, when available, upon request.

For more information about PBI, LEAP, Sage-N, and Valco, please click on the following links:

http://www.pressurebiosciences.com

http://www.leaptec.com

http://www.sagenresearch.com

http://www.vici.com

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