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Pressure BioSciences, Inc. Issued First Two Patents on Widely-Applicable, High Pressure-Based Ultra Shear Technology ("UST")

Company Believes UST Can Be Used to Create or Improve a Broad Range of Medical, Consumer, and Industrial Products through the Preparation of High-Quality Nanoemulsions and Safe "Clean Label" Food

SOUTH EASTON, MA / ACCESSWIRE / October 2, 2017 /Pressure BioSciences, Inc. (OTCQB: PBIO) ("PBI" and the "Company"), a leader in the development and sale of broadly enabling, pressure cycling technology ("PCT")-based sample preparation solutions to the worldwide life sciences industry, today announced they have been issued two utility model patents in China: No. WO2016160667-PBI ("System for High Pressure, High Shear Processing of Fluids") and No. WO2017044590-PBI ("Ultrahigh Pressure Compact Valve with Throttling Capability"). The patents have also been filed in many other countries worldwide.

UST is a novel technique based on the use of intense shear forces generated from ultra-high pressure valve discharge. UST is driven by pressure levels greater than 20,000 psi. The Company believes that UST has the potential to play a significant role in a number of commercially important areas, including the formulation of high quality stable nanoemulsions and the preparation of extended shelf-life "clean label" food.

For more information about the Company's PCT platform, the newly-issued UST patents, and the potential use of UST in the formulation of nanoemulsions and the preparation of clean label food, please click on the following link:

<http://www.investorcalendar.com/event/20351>.

About Nanoemulsions

Emulsions are mixtures of two or more liquids (e.g., oils in water) that cannot be blended into each other without the addition of chemicals called emulsifiers (e.g., surfactants). Emulsions are used in multiple products in everyday use, including food, medical products, pharmaceuticals, nutraceuticals, cosmetics, industrial lubricants, and even cannabis oil extracts (e.g., CBD). Scientific studies indicate that improved absorption, higher bioavailability, greater stability, lower surfactant levels, and other advantages can be achieved with nanoemulsions when compared to standard macro- and micro-emulsions.

Dr. Nate Lawrence, Vice President of Marketing and Sales at PBI, commented: "Because of

their clear advantages over more traditional emulsions, nanoemulsions are currently the focus of numerous research programs worldwide. Nanoemulsions are creating much excitement and expectations across a number of important market segments, including nanomaterials manufacturing, medical imaging, drug delivery, nutraceuticals, cosmetics, and food. Unfortunately, cost-effective, highly-stable nanoemulsions with minimal or no use of surfactants are difficult to produce."

Dr. Lawrence continued: "We believe that aqueous nanoemulsions could dramatically increase absorption and bioavailability of non-polar, water-insoluble molecules like Vitamin A, Vitamin C, CBD and other extracts of cannabis plant material, and a host of other similar molecules. Consequently, the ability to efficiently make high quality, aqueous nanoemulsions with minimal or no use of surfactants could potentially lead to the safe and effective oral delivery of stable medical products for many molecules where absorption and bioavailability are issues today."

About "Clean Label" Food

Today's health-conscious consumers demand food that is safe, tastes good, and looks appealing while being minimally processed, highly-nutritious, microbiologically safe, and free of chemical emulsifiers and preservatives. Consequently, food processors are seeking and embracing new, minimally or non-thermal technologies that can provide extended shelf-life, while meeting "clean label" requirements and consumer expectations. The current clean label food market has been estimated at approximately \$62 billion in the USA and \$165 billion worldwide (Nunes, 2016). A number of clean label foods are currently processed using high-pressure treatments, including many juices (e.g., Starbuck's Evolution line), seafood, meats, baby food, and fruits/vegetables. In 2015, the worldwide market for high-pressure processed ("HPP") food was estimated at \$10 billion (Toops, 2016).

Dr. Edmund Y. Ting, Sr. VP of Engineering at PBI, a pioneer in the development of HPP and a co-inventor of UST, said: "HPP is very effective in reducing food-borne pathogens and extending shelf-life in pre-packaged foods (e.g., juices and ready-to-eat meats), thus eliminating the need for chemical additives. However, HPP remains a batch process that is not capable of continuous flow, cost-effective production of low-acid food such as milk, liquid cheese, and mayonnaise, especially if they are to be shelf stable."

Dr. Ting continued: "UST uses ultra-high pressures to generate intense shear forces under controlled temperature conditions to produce nanoemulsions with significant reductions in food-borne pathogens, perhaps reaching sterilization. Evidence suggests that under such extreme conditions, even bacterial spores can be inactivated. This leads to the potential for continuous production of extended shelf-life or room temperature stable, low-acid liquid foods. Thus, because of its importance worldwide, our initial focus will be to evaluate UST for the production of high-quality dairy products and beverages with superior consumer appeal and shelf life."

About Pressure BioSciences, Inc.

Pressure BioSciences, Inc. ("PBI") (OTCQB: PBIO) develops, markets, and sells proprietary laboratory instrumentation and associated consumables to the estimated \$6 billion life sciences sample preparation market. Our products are based on the unique properties of both constant (i.e., static) and alternating (i.e., pressure cycling technology, or "PCT")

hydrostatic pressure. PCT is a patented enabling technology platform that uses alternating cycles of hydrostatic pressure between ambient and ultra-high levels to safely and reproducibly control bio-molecular interactions. Our primary focus is in the development of PCT-based products for biomarker and target discovery, drug development and design, bio-therapeutics characterization, soil & plant biology, forensics, and counter-bioterror applications. Major new focal market opportunities are emerging in the use of our patented, scalable, high-efficiency Ultra Shear Technology ("UST") to create stable nanoemulsions of otherwise immiscible fluids (such as oils and water), and to prepare homogenized, extended shelf-life or room temperature stable, low-acid liquid foods that cannot be effectively prepared using existing, FDA-approved, high-pressure processing ("HPP") technologies.

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. 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, the risks and uncertainties discussed under the heading "Risk Factors" in the Company's Annual Report on Form 10-K for the year ended December 31, 2016, and other reports filed by the Company from time to time with the SEC. The Company undertakes no obligation to update any of the information included in this release, except as otherwise required by law.

For more information about PBI and this press release, please click on the following website link:

<http://www.pressurebiosciences.com>

Please visit us on Facebook, LinkedIn, and Twitter

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