

Pressure BioSciences Makes CBD Oil Water Soluble, Offering Solution to CBD Absorption Issue in Food & Beverages

New Video Demonstrates PBI's Ultra Shear Technology and Potential Impact inCBD, Nutraceuticals, Foods, Cosmetics, and Other Oil-Based Markets

SOUTH EASTON, MA / ACCESSWIRE / February 13, 2019 /Pressure BioSciences, Inc. (OTCQB: PBIO) ("PBI" and the "Company"), a leader in the development and sale of broadly enabling, pressure-based instruments, consumables, and platform technology solutions to the life sciences and other industries, today released a short video demonstrating the Company's proprietary Ultra Shear Technology (USTTM) platform and its ability to create extremely small, nanometer-scale oil droplets that effectively dissolve in water (nanoemulsions) to provide optimized bioavailability for absorption.



Link to video: PBI UST CBD Short Video

Dr. Bradford A. Young, Chief Commercial Officer of Pressure BioSciences, explained: "We have all observed how oil and water do not normally mix or dissolve in each other, and routinely separate after mixing. Even with modern, advanced mixing technologies, oils remain in relatively large drops in water, which are poorly absorbed by the body. PBI's proprietary UST platform employs ultra-high pressure and extreme shearing forces to create very small, nano-scale emulsions (nanoemulsions) of oil droplets in water with vastly improved absorption and stability characteristics."

Bioavailability describes the percentage of and rate at which a substance is absorbed into the bloodstream. Oil-water emulsions of nutraceuticals and supplements present a serious challenge for many oral and transdermal therapies, due to most of the beneficial molecules remaining hidden inside of the oil drops. For CBD products commonly consumed orally - including CBD oils in edibles and beverages - absorption is typically below 10% (ERTH 8/28/2018: Water Soluble CBD - The Science of Nanoemulsion and Bioavailability). PBI believes that processing with the UST platform will deliver greatly improved absorption results (90% or higher) for CBD and other oil-based supplements.

Dr. Young continued: "For many oil-based products, the ability to create nanoemulsions can improve a product's absorption, medicinal benefits, visual appearance, and sensory presentation. The potential for the UST platform to impact the CBD industry is promising, with the total cannabinoid market expected to hit \$22 billion by 2022 (Brightfield Group, 2018), with CBD oil-based supplements being the cornerstone of this market. More importantly, while CBD is an attractive opportunity for our proprietary UST platform, we believe that the nutraceuticals, topicals and cosmetics, and food and beverage markets as mentioned could be 10-50 times larger. We will be addressing these additional market opportunities in parallel with our efforts in CBD."

The short video released today is the first in a series of product-targeted video presentations designed to offer investors, future clients, and other interested groups additional information on PBI's UST platform and the numerous applications and opportunities for this transformational, proprietary technology.

About Pressure BioSciences, Inc.

Pressure BioSciences, Inc. (OTCQB: PBIO) is a leader in the development and sale of innovative, broadly enabling, pressure-based solutions for the worldwide life sciences industry. 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 (e.g., cell lysis, biomolecule extraction). Our primary focus is in the development of high pressure-based products for biomarker and target discovery, drug design and development, biotherapeutics characterization and quality control, food science, soil & plant biology, forensics, and counter-bioterror applications. Additionally, we are actively expanding the use of our pressure-based technologies in the following areas: (1) the use of our recently acquired protein disaggregation and refolding technology from BaroFold, Inc. to allow entry into the biologics manufacturing and contract research services sector, and (2) the use of our recently-patented, scalable, high-efficiency, pressure-based Ultra Shear Technology (USTTM) platform to (i) create stable nanoemulsions of otherwise immiscible fluids (e.g., oils and water) and to (ii) prepare higher quality, homogenized, extended shelf-life or room temperature stable low-acid liquid foods that cannot be effectively preserved using existing non-thermal technologies. For more information visit: www.pressurebiosciences.com

Forward-Looking Statements

This press release contains forward-looking statements. These statements relate to future events or the Company's future financial performance and involve known and unknown risks, uncertainties and other factors that may cause the Company's industry results, levels of

activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed, implied or inferred by these forwardlooking statements. These forward-looking statements are made under the "safe harbor" provisions of the U.S. Private Securities Litigation Reform Act of 1995. Investors can identify these forward-looking statements by words or phrases such as "may," "will," "except," "anticipate," "aim," "estimate," "intend," "plan," "believe," "is/are likely to," "future" or other similar expressions. The Company has based these forward-looking statements largely on its current expectations and projections about future events and financial trends that it believes may affect its financial condition, results of operations, business strategy, and financial needs. These statements are only predictions based on the Company's current expectations and projections about future events. Investors should not place undue reliance on these statements. In evaluating these statements, Investors should specifically consider various factors. Actual events or results may differ materially. These and other factors may cause the Company's actual results to differ materially from any forward-looking statement. 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 and other reports filed from time to time with the Securities & Exchange Commission (SEC). More detailed information about these risk factors are set forth in the Company's filings with the SEC. The Company encourages Investors to review these risk factors. The Company undertakes no obligation to update any of the information included in this release, except as otherwise required by law.

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SOURCE: Pressure BioSciences, Inc.