

Emerald Bioscience Inc. Announces Cannabidiol-Valine-Hemisuccinate Possesses Enhanced Anti-Seizure Activity when Compared with Cannabidiol (CBD) in the StemoniX Human Neural Tissue Platform

Long Beach, Calif., Dec. 10, 2019 (GLOBE NEWSWIRE) -- via NEWMEDIAWIRE -- Emerald Bioscience, Inc. (OTCQB: EMBI), a biopharmaceutical company focused on developing bioengineered cannabinoid-based therapeutics to address global medical indications, announced today that data generated by StemoniX, Inc., using their proprietary microBrain® 3D platform, demonstrated that the proprietary analog of CBD, cannabidiol-valine-hemisuccinate (CBDVHS) was both pharmacologically and therapeutically distinct from cannabidiol (CBD) when studied in an *in vitro* human neural tissue model mimicking chemically-induced seizure-like hyperactivity.

Additionally, CBDVHS was observed to gain potency in anti-seizure-like activity over the seven-day observation period whereas the suppressive effect afforded by CBD dissipated by day 3. In assessing safety parameters of CBDVHS, the molecule was not found to be toxic to the neurologic cells tested in multiple assays, both in acute and longer-term exposure. CBDVHS is the proprietary analog of CBD licensed by Emerald Bioscience from the University of Mississippi.

CBD has been studied and approved as a therapeutic for the treatment and management of epilepsy, especially rare, difficult-to-treat forms of the disease like Lennox-Gastaut syndrome (LGS) and Dravet syndrome (DS). The StemoniX microBrain 3D platform consists of functioning stem cell-derived human brain cells, which can replicate both normal and neurological disease states, like seizure activity. The platform is used for high-throughput screening to assess drug candidates that could have a greater likelihood of therapeutic success during development.

“These studies mark the first time our proprietary microBrain® 3D platform has been used to assess a cannabinoid derivative, like CBDVHS,” noted Ping Yeh, CEO and Co-founder of StemoniX. “This inaugural testing was quite promising, and the data support further assessments of this drug candidate for longer-term exposure conditions. As medical cannabinoid use grows, it will be important to understand effects across organ systems but especially the CNS given the preponderance of cannabinoid receptors in the brain and growing body of potential clinical advantages.”

“The data out of the StemoniX labs marks our first screening of CBDVHS in a tissue outside of the eye. The information derived from these predictive human models helps our company

design drug delivery systems to leverage the uniqueness of our bioengineered molecules,” commented Brian Murphy, MD, CEO of Emerald Bioscience. “Animal studies conducted by the University of Mississippi have shown that CBDVHS crosses the blood-brain barrier more effectively than CBD and so research into the activity and safety of CBDVHS in the brain is an important step in the development of this drug candidate which has been determined not to be a controlled substance by the DEA.”

About StemoniX, Inc.

StemoniX is accelerating the discovery of new medicines to treat challenging diseases via the world’s first ready-to-use assay plates containing living human microOrgans[®], including electrophysiologically active neural (microBrain[®]) and cardiac (microHeart[®]) cells. Predictive, accurate, and consistent, StemoniX’s products combined with its proprietary data management and analytical tools (AnalytiX[™]) are revolutionizing traditional drug discovery and development by radically improving the speed, accuracy, and costs required to identify new drugs and conduct initial human toxicity and efficacy testing. Through its Discovery as a Service offering, the company partners with organizations to screen compounds as well as to create customized microOrgan models and assays tailored to specific discovery and toxicity needs. Visit www.stemonix.com to learn how StemoniX is helping global institutions humanize drug discovery and development to bring the most promising medicines to patients.

About Emerald Bioscience, Inc.

Emerald Bioscience is a biopharmaceutical company headquartered in Long Beach, California, focused on the discovery, development, and commercialization of bioengineered cannabinoid-based therapeutics for significant unmet medical needs in global markets. With proprietary technology licensed from the University of Mississippi, Emerald is developing novel ways to deliver cannabinoid-based drugs for specific indications with the aim of optimizing the clinical effects of such drugs while limiting potential adverse events. Emerald’s strategy is to clinically develop a number of proprietary biosynthetic compounds, alone or in combination with corporate partners.

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FORWARD LOOKING STATEMENTS

This press release contains forward-looking statements, including statements regarding our product development, business strategy, research plans, and timing of clinical trials. Such statements and other statements in this press release that are not descriptions of historical

facts are forward-looking statements that are based on management's current expectations and assumptions and are subject to risks and uncertainties. If such risks or uncertainties materialize or such assumptions prove incorrect, our business, operating results, financial condition and stock price could be materially negatively affected. In some cases, forward-looking statements can be identified by terminology including "anticipated," "contemplates," "goal," "focus," "aims," "intends," "believes," "can," "could," "challenge," "predictable," "will," "would," "may" or the negative of these terms or other comparable terminology. We operate in a rapidly changing environment and new risks emerge from time to time. As a result, it is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements the Emerald may make. Risks and uncertainties that may cause actual results to differ materially include, among others, our capital resources, uncertainty regarding the results of future testing and development efforts and other risks that are described in the Risk Factors section of Emerald' most recent annual or quarterly report filed with the Securities and Exchange Commission. Except as expressly required by law, Emerald disclaims any intent or obligation to update these forward-looking statements.



Source: Emerald Bioscience, Inc.