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Artelo Biosciences Announces Publication of Study Results Comparing the Pharmacological Effects of Plant-Derived Versus Synthetic Cannabidiol in Human Cell Lines

Study finds no in-vitro pharmacological difference in the antiproliferative, anti-inflammatory, or permeability effects of purified natural versus synthetic CBD

Study further validates Artelo's strategy to develop a synthetic CBD-cocrystal with enhanced pharmaceutical properties as well as synergistic use of the coformer TMP

SOLANA BEACH, Calif., Aug. 04, 2021 (GLOBE NEWSWIRE) -- Artelo Biosciences, Inc. **(NASDAQ: ARTL)**, a clinical stage biopharmaceutical company focused on the development of therapeutics that target lipid signaling pathways, including the endocannabinoid system, today announced the publication of study results in Medical Cannabis and Cannabinoids, a peer-reviewed journal. The study and related article, entitled "The Pharmacological Effects of Plant-Derived versus Synthetic Cannabidiol in Human Cell Lines," compared the *in vitro* effects of purified natural and synthetic forms of Cannabidiol (CBD) to establish any pharmacological differences in human cell lines. The study found no *in-vitro* pharmacological difference in the antiproliferative, anti-inflammatory, or permeability effects of purified natural versus synthetic CBD.

Gregory D. Gorgas, President and Chief Executive Officer of Artelo Biosciences, commented, "Since this study did not find pharmacologic differences among the CBD compositions, we believe that it is the biopharmaceutical properties that have the greatest potential to differentiate CBD products. Our CBD cocrystal should contribute to improved consistency, absorption, bioavailability, processability and stability. These properties, in turn, may lead to a product candidate with better efficacy and safety."

"Importantly, our patented cocrystal is comprised of both CBD and tetramethylpyrazine (TMP), each of which has have demonstrated anti-cancer properties *in-vitro* and *in-vivo*. However, individually, both of these compounds suffer from poor oral bioavailability. A recent study confirmed that when combined, there were synergistic and additive interactions between CBD and TMP in their ability to prevent cancer cell growth and to kill cancer cells. For this reason, we believe ART12.11 represents an attractive drug candidate targeting large indications, such as cancer, PTSD, inflammatory bowel disease and more. In addition, our recently issued composition of matter patents could form the basis for market exclusivity through the end of 2038."

The company-sponsored study was led by Prof. Saoirse O'Sullivan, scientific advisor to Artelo Biosciences and former Professor of Pharmacology at the University of Nottingham, UK.

About Medical Cannabis and Cannabinoids

Medical Cannabis and Cannabinoids is a peer-reviewed journal offering an international forum to present and discuss recent advances in the rapidly developing and challenging field of the medical use of cannabis and cannabinoids. It seeks to bridge the gap between empirical and evidence-based clinical medicine by covering current basic and applied as well as translational research topics. In addition to original papers, reviews, and mini-reviews, this journal features short communications, case reports, technical notes, letters, and conference proceedings.

About Artelo Biosciences

Artelo Biosciences, Inc. is a clinical stage biopharmaceutical company dedicated to the development and commercialization of proprietary therapeutics that target lipid signaling pathways, including the endocannabinoid system. Artelo is rapidly advancing a portfolio of broadly applicable product candidates designed to address significant unmet needs in multiple diseases and conditions, including anorexia, cancer, PTSD, pain, and inflammation. Led by proven biopharmaceutical executives collaborating with highly respected researchers and technology experts, the San Diego-based company applies leading edge scientific, regulatory, and commercial discipline to develop high-impact therapies. More information is available at www.artelobio.com and Twitter: @ArteloBio.

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