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Artelo Biosciences Files Patent on Use of Fatty Acid Binding Protein 5 Inhibitors for Treating Psychological Disorders

Reports positive preclinical data in animal models

LA JOLLA, Calif., Oct. 21, 2020 (GLOBE NEWSWIRE) -- [Artelo Biosciences, Inc.](#) ([NASDAQ: ARTL](#)), a clinical stage biopharmaceutical company focused on developing and commercializing treatments intended to modulate endogenous signaling pathways, including the endocannabinoid system, today announced that it has filed a method of use patent with the U.S. Patent and Trademark Office covering the use of Fatty Acid Binding Protein 5 (FABP5) inhibitors for the treatment of psychological disorders such as anxiety and post-traumatic stress disorder (PTSD). Chronic stress and anxiety disorders, including PTSD, represent significant healthcare and economic burdens worldwide.

The Company also reported positive preclinical data in animal models demonstrating that inhibition of FABP5 resulted in elevated anandamide in brain regions involved in psychological disorders, such as anxiety and PTSD-related symptoms. Microinfusions of the FABP5 inhibitor into a rodent medial prefrontal cortex and testing the rodents for anxiety and PTSD-related traumatic memory processing using fear conditioning demonstrated that inhibition of FABP5 strongly regulated anxiety and PTSD-related phenomena in the prefrontal cortex.

Anxiety disorders, such as PTSD, and chronic stress are currently treated using interventional therapeutic approaches and medications such as those that affect serotonin and/or norepinephrine. However, commonly prescribed anti-anxiety drugs have been linked to serious side-effects, including drug dependence and withdrawal, cognitive impairments and metabolic symptoms. These new data suggest FABP5 inhibition may provide a novel approach to treating certain psychological disorders with less deleterious impact than experienced with current methodologies.

"The filing of this patent represents a significant expansion of Artelo's patent estate initiatives by adding the potential to treat psychological disorders using ART26.12, our FABP5 inhibitor platform," stated Gregory D. Gorgas, Artelo's President and CEO. "Importantly, the animal models suggest that the inhibition of FABP5 holds noteworthy potential as a treatment for these conditions without the inherent side effects associated with current therapies. Moreover, we are beginning to understand that COVID-19 survivors may have a higher risk of developing PTSD, as well as those suffering from the stress and anxiety associated with the current pandemic, which highlights the expanding need for safe and effective treatment."

Dr. Steven Laviolette, Professor in the Schulich School of Medicine, at the University of Western Ontario, Canada, who led the research added, “The preclinical animal data thus far suggests FABP5 inhibitors may play an important role in treating anxiety and PTSD, as well as other potential psychological disorders. We are encouraged that we have not witnessed the typical side effect profile that is often associated with drug dependence and cognitive impairment, a notable contrast to other anxiolytics. We believe this is due to the unique mechanism of action of FABP5 inhibitors, which appears to modulate the endocannabinoid system specifically through CB₂ receptors. This mechanism is an important difference to certain cannabinoids being applied to these disorders, such as THC, which target CB₁ receptors and consequently often results in paranoia and increased anxiety. We look forward to continuing our research on FABP5 inhibitors in collaboration with Artelo.”

Artelo recently announced expanding its existing worldwide commercial license agreement with The Research Foundation for The State University of New York, Stony Brook by obtaining exclusive rights to the recently developed, third-generation FABP5 inhibitors developed under a research collaboration with Stony Brook. Already known to have potential for treating cancer, inflammation, and pain, FABP5 inhibitors may also have an important role in the management of anxiety disorders including PTSD.

About Artelo Biosciences, Inc.

Artelo Biosciences, Inc. is a San Diego-based biopharmaceutical company dedicated to the development and commercialization of proprietary therapeutics intended to modulate endogenous 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, post-traumatic stress disorder, pain, and inflammation. Led by proven biopharmaceutical executives collaborating with highly respected researchers and medical experts, the 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](https://twitter.com/@ArteloBio).

About PTSD

PTSD is a psychiatric disorder that is triggered in people who have experienced or witnessed a traumatic event and for whom impact of the event manifests in functional disability with lasting mental and physical effects. PTSD affects approximately 3.5 percent of U.S. adults each year, and an estimated one in 11 people will be diagnosed PTSD in their lifetime. PTSD is the fifth most prevalent psychiatric disorder in the United States and is projected to increase since the arrival of the COVID-19 pandemic.

Forward Looking Statements

This press release contains certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934 and Private Securities Litigation Reform Act, as amended, including those relating to the Company's product development, clinical and regulatory timelines, market opportunity, competitive position, possible or assumed future results of operations, business strategies, potential growth opportunities and other statement that are predictive in nature. These forward-looking statements are based on current expectations, estimates, forecasts and projections about the industry and markets in which we operate and management's current

beliefs and assumptions.

These statements may be identified by the use of forward-looking expressions, including, but not limited to, "expect," "anticipate," "intend," "plan," "believe," "estimate," "potential," "predict," "project," "should," "would" and similar expressions and the negatives of those terms. These statements relate to future events or our financial performance and involve known and unknown risks, uncertainties, and other factors which may cause actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Such factors include those set forth in the Company's filings with the Securities and Exchange Commission, including our ability to raise additional capital in the future. Prospective investors are cautioned not to place undue reliance on such forward-looking statements, which speak only as of the date of this press release. The Company undertakes no obligation to publicly update any forward-looking statement, whether as a result of new information, future events or otherwise, except to the extent required by applicable securities laws.

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