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Artelo Biosciences Announces Publication of Positive Non-Clinical Fatty Acid Binding Protein 5 Inhibitor Data in Peer-Reviewed Journal

Combination of FABP5 inhibitors with taxanes resulted in complete prostate cell death demonstrating more efficacious antitumor activity and more limited side-effects than standard-of-care taxane therapy alone

LA JOLLA, Calif., Nov. 18, 2019 (GLOBE NEWSWIRE) -- [Artelo Biosciences, Inc. \(NASDAQ: ARTL\)](#), a clinical stage biopharmaceutical company developing therapeutics that modulate the endocannabinoid system, announced today that positive non-clinical data with the Company's Fatty Acid Binding Protein 5 (FABP5) inhibitor program under development in collaboration with [The Research Foundation of the State University of New York Stony Brook](#), were published in the October 2019 issue of [The Prostate](#), a premier peer-reviewed journal. (*Docetaxel/cabazitaxel and fatty acid binding protein 5 inhibitors produce synergistic inhibition of prostate cancer growth, Carbonetti et. al, The Prostate, 2019, 1-11*)

Prostate cancer remains the second leading cause of cancer-related death among men. Taxanes, such as docetaxel and cabazitaxel are utilized in standard treatment regimens for chemotherapy naïve castration-resistant prostate cancers. However, tumors often develop resistance to taxanes, and taxane-treatment can lead to numerous adverse effects that can lead to the termination of therapy.

FABP5 is an intra-cellular protein chaperone that serves as a carrier for fatty acids that trigger increased expression of genes associated with tumor angiogenesis and reduced patient survival. Inhibition of FABP5 has previously been shown to suppresses the growth and migration of breast and prostate cancers. Researchers at Stony Brook University assessed whether FABP5 inhibitors synergize with semi-synthetic taxanes to induce cytotoxicity *in vitro* and attenuate tumor growth *in vivo*.

"In our research, neither docetaxel nor cabazitaxel alone completely eradicated prostate cancer cells *in vitro*, while combinations of taxanes with FABP5 inhibitors resulted in complete prostate cell death at lower concentrations," noted Iwao Ojima, Ph.D. Distinguished Professor and Chemistry Director, Institute of Chemical Biology and Drug Discovery, Stony Brook University, and an author of the article. "This study is the first to demonstrate that the FABP5 inhibitors can increase the cytotoxic and tumor suppressive effects in prostate cancer cells when coadministered with taxanes."

“While the FABP5 inhibitors produced limited or no cytotoxicity in noncancerous cells, they achieved near-complete cell death of the prostate cancer cell lines used in this study, suggesting the FABP5 inhibitors may have more limited side-effects compared with taxanes,” added Martin Kaczocha, Ph.D., Assistant Professor of Biochemistry and Anesthesiology, Stony Brook University and one of the authors of the paper. “The ability of these drugs to synergize could lead to new combination therapies with enhanced tumor-suppressive efficacy while allowing for dosages of docetaxel or cabazitaxel to be lowered, potentially decreasing taxane-resistance and improving treatment outcomes.”

“We are very encouraged by the results of the combination of FABP5 inhibitors with standard of care therapy for prostate cancer,” said Gregory D. Gorgas, Chief Executive Officer at Artelo Biosciences. “This data builds on previously published single-agent results in prostate cancer and we are looking forward to advance ART26.12, our FABP5 inhibitor program, toward human studies as rapidly as possible,” added Mr. Gorgas.

About The Research Foundation for the State University of New York

The Research Foundation for The State University of New York (RF) is the largest comprehensive university-connected research foundation in the country. It exists to serve the State University of New York (SUNY) by providing essential administrative services that enable SUNY faculty to focus their efforts on the education of students and the performance of life-changing research across a wide range of disciplines including medicine, engineering, physical sciences, energy, computer science, and social sciences. The RF is a private non-profit education corporation that is tax-exempt under Internal Revenue Code (IRC) Section 501(c) (3). More information is available at <https://www.rfsuny.org/about-us/> and on Twitter [@rfsuny](https://twitter.com/rfsuny).

About The Prostate

The Prostate is a peer-reviewed journal dedicated to original studies of this organ and the male accessory glands. It serves as an international medium for these studies, presenting comprehensive coverage of clinical, anatomic, embryologic, physiologic, endocrinologic, and biochemical studies. More information is available at <https://onlinelibrary.wiley.com/journal/10970045>.

About Artelo Biosciences

Artelo Biosciences, Inc. is a San Diego-based biopharmaceutical company dedicated to the development and commercialization of proprietary therapeutics targeting 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, pain, and inflammation. Led by proven biopharmaceutical executives collaborating with highly respected researchers and technology 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).

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