July 16, 2026

Artelo Biosciences Announces Results from a Nonclinical Osteoarthritis Study Supporting ART26.12 as a Potential First-in-Class New Therapy for Chronic Pain Conditions

Osteoarthritic Pain Model Results Further Validate FABP5 as a Novel Therapeutic Target in Pain Management

SOLANA BEACH, Calif., July 16, 2026 (GLOBE NEWSWIRE) -- Artelo Biosciences, Inc. **(Nasdaq: ARTL)** ("Artelo" or the "Company"), a clinical-stage pharmaceutical company focused on modulating lipid-signalling pathways to develop treatments for people living with cancer, pain, dermatologic, or neurological conditions, today announced new data supporting the therapeutic potential of ART26.12, its proprietary and selective fatty acid binding protein 5 (FABP5) inhibitor, as a novel product candidate for the treatment of osteoarthritis (OA) pain. Martin Kaczocha, Ph.D., Professor of Anesthesiology at Stony Brook University, New York, presented the research results at the International Cannabinoid Research Society 2026 Annual Symposium recently held in Dijon, France.

In the nonclinical OA study, oral administration of ART26.12 significantly reduced osteoarthritis-associated pain behaviors following both acute and chronic dosing over a 4-week period, demonstrating efficacy comparable to naproxen, a widely prescribed nonsteroidal anti-inflammatory drug (NSAID) used to treat OA. ART26.12 produced distinct changes in endocannabinoids and other related bioactive lipids and proteins compared to naproxen, supporting a novel mechanism of action for ART26.12. Importantly, animals treated with ART26.12 exhibited significantly less stomach tissue damage, including non-glandular hyperkeratosis, compared to those receiving naproxen. Non-glandular hyperkeratosis is considered an early indicator of erosions and gastric ulcers, a well-recognized and potentially serious complication associated with chronic NSAID use. These findings suggest ART26.12 may offer effective pain relief with the potential for an improved gastrointestinal safety profile.

Professor Kaczocha commented, "Osteoarthritis affects more than 30 million Americans and a novel drug such as ART26.12 could provide a new option for patients to achieve pain relief with potentially fewer side-effects compared to existing NSAIDs."

Long-term treatment options for OA remain constrained by the safety concerns associated with chronic NSAID use, including gastrointestinal complications that contribute to significant morbidity and healthcare costs each year. These limitations highlight the need for

differentiated therapies, and new preclinical findings further validate FABP5 as a promising target for the treatment of chronic pain while reinforcing the broad therapeutic potential of ART26.12. The data demonstrated that inhibition of FABP5 significantly alleviated osteoarthritis-associated pain, expanding the potential clinical utility of ART26.12 beyond neuropathic pain into one of the largest and most prevalent chronic pain markets. Importantly, ART26.12 delivered pain relief comparable to naproxen while exhibiting significantly less gastric tissue damage in preclinical studies, supporting the potential for an improved gastrointestinal safety profile. Collectively, these findings further support the continued development of ART26.12 as a differentiated, non-opioid pain therapy with the potential to address multiple chronic pain indications through its novel mechanism of action.

“Chronic pain remains one of the largest areas of unmet medical need, with patients continuing to rely on therapies that often provide inadequate relief or carry significant safety concerns,” said Andy Yates, PhD, Chief Scientific Officer of Artelo. “The growing body of evidence supporting ART26.12 across multiple pain models, along with a low toxicological non-clinical risk and a well-tolerated clinical profile, reinforces our belief that selective FABP5 inhibition may represent a differentiated approach to treating chronic pain and inflammatory disorders. These findings continue to strengthen the scientific rationale for ART26.12 as a potential first-in-class analgesic candidate with utility across multiple disease settings.”

Preparations are underway for conducting a clinical multiple ascending repeat dose study to further evaluate the safety, tolerability, and pharmacokinetics of ART26.12 in healthy volunteers. Artelo anticipates enrollment will commence during the fourth quarter of this year.

About ART26.12
ART26.12, Artelo’s lead Fatty Acid Binding Protein 5 (FABP5) inhibitor, is under development as a novel, peripherally acting, non-opioid, non-steroidal analgesic, initially for the treatment of chemotherapy-induced peripheral neuropathy (CIPN). Human studies with ART26.12 have demonstrated a favorable safety profile with no serious adverse events, as well as predictable, linear pharmacokinetics and dosing flexibility in both fed and fasted states. Fatty Acid Binding Proteins (FABPs) are a family of intracellular proteins that chaperone lipids important to normal cellular function. In addition to ART26.12, Artelo’s extensive library of small molecule inhibitors of FABPs has shown therapeutic promise for the treatment of certain cancers, neuropathic and nociceptive pain, psoriasis, and anxiety disorders.

About Artelo Biosciences
Artelo Biosciences, Inc. is a clinical-stage pharmaceutical company dedicated to the development and commercialization of proprietary therapeutics that modulate lipid-signaling pathways, with a diversified pipeline addressing significant unmet needs in anorexia, cancer, anxiety, dermatologic conditions, pain, and inflammation. Led by an experienced executive team collaborating with world-class researchers and technology partners, Artelo applies rigorous scientific, regulatory, and commercial practices to maximize stakeholder value. More information is available at www.artelobio.com and X: @ArteloBio.

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 statements 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.

Investor Relations Contact:
Crescendo Communications, LLC
Tel: 212-671-1020
Email: ARTL@crescendo-ir.com

Source: Artelo Biosciences