Axsome Therapeutics Provides Update on the New Drug Application (NDA) for AXS-14 for the Management of Fibromyalgia

June 9, 2025

NEW YORK, June 09, 2025 (GLOBE NEWSWIRE) -- Axsome Therapeutics, Inc. (NASDAQ: AXSM), a biopharmaceutical company leading a new era in the treatment of central nervous system (CNS) disorders, today announced it has received a Refusal to File (RTF) letter from the U.S. Food and Drug Administration (FDA) for its New Drug Application (NDA) for AXS-14 (esreboxetine) for the management of fibromyalgia.

The FDA states that upon preliminary review, it found that the NDA was not sufficiently complete to permit a substantive review. Specifically, the FDA does not consider the second of the two placebo-controlled trials in the submission to be adequate and well-controlled because its primary endpoint was at 8 weeks and it used a flexible-dose paradigm. The FDA indicated that the first of the two placebo-controlled trials in the submission, which utilized a 12-week endpoint and a fixed-dose paradigm, is adequate and well-controlled. The FDA did not raise any questions relating to the positive results of the studies, both of which met their primary endpoints.

To address the FDA's feedback, Axsome will conduct an additional controlled trial, which will use a fixed-dose paradigm and a 12-week primary endpoint as requested by the FDA. Axsome anticipates initiating this trial in the fourth quarter of 2025.

"The clear feedback provided by the FDA's Division of Anesthesiology, Addiction Medicine, and Pain Medicine allows us to move expeditiously with the continued development of this important investigational medicine for the approximately 17 million patients in the U.S. living with fibromyalgia. We are well positioned to initiate a new controlled trial that will incorporate the FDA's feedback by the end of 2025," said Herriot Tabuteau, MD, Chief Executive Officer of Axsome. "As highlighted in the FDA's Patient-Focused Drug Development Initiative report *The Voice of the Patient: Fibromyalgia*, patients with fibromyalgia experience debilitating widespread pain, fatigue, and functional impairment, and report living with constant stigmatization, anxiety, depression, and fear of ongoing or worsening symptoms. We are excited and motivated by the potential for AXS-14 to address this high unmet medical need for patients, as evidenced by the consistent efficacy demonstrated to date across a broad range of fibromyalgia symptoms, including significant improvements in pain, function, and fatigue, in the completed trials."

About AXS-14

AXS-14 (esreboxetine) is a highly selective and potent norepinephrine reuptake inhibitor for the management of fibromyalgia and other conditions. Esreboxetine, the SS-enantiomer of reboxetine, is more potent and selective than racemic reboxetine. AXS-14 is an investigational drug product not approved by the FDA.

About Fibromyalgia

Fibromyalgia is a chronic debilitating disorder characterized by widespread pain, fatigue, disturbed sleep, depression, and cognitive impairment.[1] Other symptoms of this disorder can include tingling in the hands and feet and headaches.[1] Fibromyalgia has considerable detrimental effects on physical, emotional, social, and day-to-day functioning.[1] Fibromyalgia is considered to be mediated mainly in the central nervous system. Approximately 17 million Americans, 90% of whom are women, are estimated to suffer from fibromyalgia.[2] Treatment options for fibromyalgia are limited with only three pharmacologic treatments currently approved by the FDA.

About Axsome Therapeutics

Axsome Therapeutics is a biopharmaceutical company leading a new era in the treatment of central nervous system (CNS) conditions. We deliver scientific breakthroughs by identifying critical gaps in care and develop differentiated products with a focus on novel mechanisms of action that enable meaningful advancements in patient outcomes. Our industry-leading neuroscience portfolio includes FDA-approved treatments for major depressive disorder, excessive daytime sleepiness associated with narcolepsy and obstructive sleep apnea, and migraine, and multiple late-stage development programs addressing a broad range of serious neurological and psychiatric conditions that impact over 150 million people in the United States. Together, we are on a mission to solve some of the brain's biggest problems so patients and their loved ones can flourish. For more information, please visit us at www.axsome.com and follow us on LinkedIn and X.

Forward Looking Statements

Certain matters discussed in this press release are "forward-looking statements". The Company may, in some cases, use terms such as "predicts," "believes," "potential," "continue," "estimates," "anticipates," "expects," "plans," "intends," "may," "could," "might," "will," "should" or other words that convey uncertainty of future events or outcomes to identify these forward-looking statements. In particular, the Company's statements regarding trends and potential future results are examples of such forward-looking statements. The forward-looking statements include risks and uncertainties, including, but not limited to, the commercial success of the Company's SUNOSI ®, AUVELITY®, and SYMBRAVO® products and the success of the Company's efforts to obtain any additional indication(s) with respect to solriamfetol and/or AXS-05; the Company's ability to maintain and expand payer coverage; the success, timing and cost of the Company's ongoing clinical trials and anticipated clinical trials for the Company's current product

candidates, including statements regarding the timing of initiation, pace of enrollment and completion of the trials (including the Company's ability to fully fund the Company's disclosed clinical trials, which assumes no material changes to the Company's currently projected revenues or expenses), futility analyses and receipt of interim results, which are not necessarily indicative of the final results of the Company's ongoing clinical trials, and/or data readouts, and the number or type of studies or nature of results necessary to support the filing of a new drug application ("NDA") for any of the Company's current product candidates; the Company's ability to fund additional clinical trials to continue the advancement of the Company's product candidates; the timing of and the Company's ability to obtain and maintain U.S. Food and Drug Administration ("FDA") or other regulatory authority approval of, or other action with respect to, the Company's product candidates, including statements regarding the timing of any NDA submission; the Company's ability to successfully defend its intellectual property or obtain the necessary licenses at a cost acceptable to the Company, if at all; the Company's ability to successfully resolve any intellectual property litigation, and even if such disputes are settled, whether the applicable federal agencies will approve of such settlements; the successful implementation of the Company's research and development programs and collaborations; the success of the Company's license agreements; the acceptance by the market of the Company's products and product candidates, if approved; the Company's anticipated capital requirements, including the amount of capital required for the commercialization of SUNOSI, AUVELITY, and SYMBRAVO and for the Company's commercial launch of its other product candidates, if approved, and the potential impact on the Company's anticipated cash runway; the Company's ability to convert sales to recognized revenue and maintain a favorable gross to net sales; unforeseen circumstances or other disruptions to normal business operations arising from or related to domestic political climate, geo-political conflicts or a global pandemic and other factors, including general economic conditions and regulatory developments, not within the Company's control. The factors discussed herein could cause actual results and developments to be materially different from those expressed in or implied by such statements. The forward-looking statements are made only as of the date of this press release and the Company undertakes no obligation to publicly update such forward-looking statements to reflect subsequent events or circumstances.

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2. Vincent A, et al. Prevalence of fibromyalgia: a population-based study in Olmsted County, Minnesota, utilizing the Rochester Epidemiology Project. Arthritis Care Res (Hoboken). 2013 May;65(5):786-92. doi: 10.1002/acr.21896.

Source: Axsome Therapeutics, Inc.