Acumen Pharmaceuticals Presents Studies Showing the Utility of a pTau217 Assay in Screening for a Phase 2 Alzheimer's Disease Trial and Validates Sabirnetug Oligomer-Selectivity, at the Alzheimer's Association International Conference (AAIC) 2025

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NEWTON, Mass., July 28, 2025 (GLOBE NEWSWIRE) -- Acumen Pharmaceuticals, Inc. (NASDAQ: ABOS), a clinical-stage biopharmaceutical company developing a novel therapeutic that targets soluble amyloid beta oligomers (AβOs) for the treatment of Alzheimer's disease (AD), today announced results showing that implementing a blood-based pTau217 screening assay reduced Acumen's overall clinical trial screening costs by approximately 40% in its Phase 2 ALTITUDE-AD study of sabirnetug in early Alzheimer's disease in the U.S. and Canada. Additionally, a nonclinical study revealed sabirnetug achieved the highest selectivity for AβOs over Aβ monomers relative to recombinant lecanemab and aducanumab. The results are being presented at the Alzheimer's Association International Conference (AAIC), taking place July 27-31, 2025, in Toronto and online.

"These advances represent important progress in addressing the critical need for effective treatments targeting toxic amyloid β oligomers (AβOs) in early symptomatic Alzheimer's disease, while simultaneously demonstrating patient-centric and cost-effective trial execution strategies," said Eric Siemers, M.D., Chief Medical Officer of Acumen Pharmaceuticals. "By combining cutting-edge therapeutic development with smart clinical trial strategies, we're working to create a more efficient path forward in bringing potential new options to patients with Alzheimer's disease. "

ALTITUDE-AD: Cost savings using a pTau217 screening assay in an ongoing Phase 2 study of sabirnetug in early Alzheimer's disease

Acumen reported operational innovations in its ALTITUDE-AD Phase 2 clinical trial where researchers implemented an innovative two-step screening process using plasma pTau217 biomarker assay testing that yielded significant clinical trial screening and cost efficiencies. The approach reduced total screening costs by approximately 40% across U.S. and Canadian sites.

Furthermore, the screening process was efficient, with 48% of participants meeting the pTau217 threshold required for confirmatory testing. Among those who passed this initial screening, 81% of participants successfully met amyloid positivity eligibility requirements. The strategy performed as intended, helping to achieve strong enrollment rates and reducing unnecessary amyloid PET scans and lumbar puncture procedures for potential participants.

Sabirnetug shows superior selectivity for Aβ oligomers over monomer, a differentiated mechanism of action.

Soluble, synaptotoxic AβOs are an early and persistent driver of AD-related pathophysiology and represent a key target for the development of next-generation therapies for Alzheimer's disease. Targeting soluble AβOs may slow down neurodegeneration, reduce tau hyperphosphorylation, and prevent synapse loss for patients with early AD.

Acumen demonstrated sabirnetug's selectivity for binding to toxic AβOs through comprehensive surface plasmon resonance testing. The study revealed sabirnetug achieved the highest binding affinities to AβO preparations among the monoclonal antibodies tested. Sabirnetug also showed minimal interaction with monomeric Aβ, which is significant given that monomeric forms are approximately 7,000-fold more abundant than oligomers in the cerebrospinal fluid of patients with MCI and mild dementia due to AD. Overall, sabirnetug demonstrated 8,750-fold selectivity for Aβ1-42 stabilized oligomers over Aβ1-40 monomers. The results support sabirnetug's mechanism of action and selectivity for AβOs.

About Sabirnetug (ACU193)

Sabirnetug (ACU193) is a humanized monoclonal antibody (mAb) discovered and developed based on its selectivity for soluble amyloid beta oligomers (AβOs), which are a highly toxic and pathogenic form of Aβ, relative to Aβ monomers and amyloid plaques. Soluble AβOs have been observed to be potent neurotoxins that bind to neurons, inhibit synaptic function and induce neurodegeneration. By selectively targeting toxic soluble AβOs, sabirnetug aims to address the hypothesis that soluble AβOs are an early and persistent underlying cause of the neurodegenerative process in Alzheimer's disease (AD). Sabirnetug has been granted Fast Track designation for the treatment of early AD by the U.S. Food and Drug Administration and is currently being evaluated in a Phase 2 study in patients with early AD.

About ALTITUDE-AD (Phase 2)

Initiated in 2024, ALTITUDE-AD is a Phase 2, multi-center, randomized, double-blind, placebo-controlled clinical trial designed to evaluate the efficacy and safety of sabirnetug (ACU193) infusions administered once every four weeks in slowing cognitive and functional decline as compared to placebo in participants with early Alzheimer's disease. The study has enrolled 542 individuals with early Alzheimer's disease (mild cognitive impairment or mild dementia due to AD) at multiple investigative sites located in the United States, Canada, the European Union and the United Kingdom. More information can be found on www.clinicaltrials.gov, NCT identifier NCT06335173.

About Acumen Pharmaceuticals, Inc.

Acumen Pharmaceuticals is a clinical-stage biopharmaceutical company developing a novel therapeutic that targets toxic soluble amyloid beta oligomers (AβOs) for the treatment of Alzheimer's disease (AD). Acumen's scientific founders pioneered research on AβOs, which a growing body of evidence indicates are early and persistent triggers of Alzheimer's disease pathology. Acumen is currently focused on advancing its investigational product candidate, sabirnetug (ACU193), a humanized monoclonal antibody that selectively targets synaptotoxic AβOs, in its ongoing Phase 2 clinical trial ALTITUDE-AD (NCT06335173) in early symptomatic Alzheimer's disease patients, following positive results in its Phase 1 trial INTERCEPT-AD. Acumen is also investigating a subcutaneous formulation of sabirnetug using Halozyme's proprietary ENHANZE ® drug delivery technology. Acumen is also collaborating with JCR Pharmaceuticals to develop an Enhanced Brain Delivery (EBD™) therapy for Alzheimer's disease utilizing a transferrin-

receptor-targeting blood-brain barrier-penetrating technology. The company is headquartered in Newton, Mass. For more information, visit www.acumenpharm.com.

Forward-Looking Statements

This press release contains forward-looking statements within the meaning of The Private Securities Litigation Reform Act of 1995. Any statement describing Acumen's goals, expectations, financial or other projections, intentions or beliefs is a forward-looking statement and should be considered an at-risk statement. Words such as "potential," "will" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. Forward-looking statements include statements concerning the therapeutic potential and potential clinical efficacy of Acumen's product candidate, sabirnetug (ACU193) and the efficiencies and costs associated with the pTau217 screening assay. These statements are based upon the current beliefs and expectations of Acumen's management, and are subject to certain factors, risks and uncertainties, particularly those inherent in the process of discovering, developing and commercializing safe and effective human therapeutics. Such risks may be amplified by the impacts of geopolitical events and macroeconomic conditions, such as rising inflation and interest rates, supply disruptions and uncertainty of credit and financial markets. These and other risks concerning Acumen's programs are described in additional detail in Acumen's filings with the Securities and Exchange Commission ("SEC"), including in Acumen's most recent Annual Report on Form 10-K, and in subsequent filings with the SEC. Copies of these and other documents are available from Acumen. Additional information will be made available in other filings that Acumen makes from time to time with the SEC. These forward-looking statements speak only as of the date hereof, and Acumen expressly disclaims any obligation to update or revise any forward-looking statement, except as otherwise required by law, whether, as a result of new information, future events or otherwise.

Investors:
Alex Braun
abraun@acumenpharm.com

Media:
Jon Yu
ICR Healthcare
AcumenPR@icrhealthcare.com