Acumen Pharmaceuticals Highlights Enhanced Brain Delivery™ (EBD™) Program Data and Early Alzheimer's Disease Insights at the Alzheimer's Association International Conference (AAIC®) 2026

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- EBD™ bispecific antibodies targeting both AβOs and hTfR showed improved brain penetration compared to the native anti-AβO antibodies, which may enable administration with a low-volume delivery device and reduce the delivered dose required for efficacy
- EBD candidate ACU401 achieves up to 40-fold greater frontal cortex exposure in non-human primates and significant increase in exposures in deep brain regions
- No hematological safety signals observed in non-human primates, demonstrating low potential for anemia
- ALTITUDE-AD patient experience data highlight unmet need in early Alzheimer's disease

NEWTON, Mass., July 15, 2026 (GLOBE NEWSWIRE) -- Acumen Pharmaceuticals, Inc. (NASDAQ: ABOS) (Acumen), a clinical-stage biopharmaceutical company developing novel therapeutics that target soluble amyloid beta oligomers (AβOs) for the treatment of Alzheimer's disease (AD), today announced new findings presented at the Alzheimer's Association International Conference (AAIC®) 2026 in London. Following collaboration with JCR Pharmaceuticals Co., Ltd. (JCR) on EBD candidate development, studies demonstrated improved brain penetration of anti-AβO antibodies through transferrin receptor-mediated delivery across both mouse and non-human primate models. Additionally, research from early symptomatic AD patients highlighted the lived experience among ALTITUDE-AD trial participants and their study partners.

"Confirming our mouse data in non-human primates is a pivotal step for our EBD program," said Paul Shughrue, PhD, Vice President, Program Leader and Head of Research, Acumen Pharmaceuticals. "The degree of brain penetration we observed in cynomolgus monkeys, combined with preserved soluble amyloid beta oligomer selectivity and a clean hematological profile, exceeded our expectations and gives us strong confidence in the differentiated potential of our EBD program's approach."

Acumen's presentation details are as follows:

Utilizing the Transferrin Receptor-Mediated Transport System for Enhanced Brain Delivery of anti-Aβ Oligomer Antibodies

To evaluate transferrin receptor (TfR)-mediated brain delivery, Acumen and JCR developed and characterized anti-AβO antibody fusion proteins incorporating J-Brain Cargo®, JCR's clinically validated platform targeting the TfR, to facilitate brain uptake in humanized TfR mice. Fusion with anti-TfR fragments did not alter AβO affinity or selectivity. All EBD constructs achieved substantially higher brain levels than native anti-AβO antibodies, with each construct displaying a unique pharmacokinetic profile. Systemic absorption was confirmed after subcutaneous dosing and constructs retained the ability to bind Aβ species of interest in human AD brain tissue. These findings support the continued advancement of lead EBD candidates and efforts to advance a construct to clinical trials.

Bispecific Antibodies that Bind Aβ Oligomers and Transferrin Receptors Show Enhanced Brain Delivery in Cynomolgus Monkeys

In collaboration with JCR, Acumen evaluated three bispecific antibodies fusing anti-AβO antibody (ACU234) with anti-TfR antibody fragments in cynomolgus monkeys. After intravenous dosing, all three bispecific antibodies achieved greater brain exposure than ACU234 alone, with at least 14-fold higher levels in the frontal cortex. Candidate molecule ACU401 demonstrated particularly robust brain penetration: 22-fold higher at 3 hours and 40-fold higher at 24 hours in the frontal cortex, with similar trends observed in the hippocampus and putamen. No hematological findings suggestive of anemia were observed. These results, together with evidence of systemic absorption after subcutaneous dosing, highlight the potential of EBD molecules for further development in early AD.

Understanding Early Symptomatic Alzheimer's Disease Through Patient Perspectives: Findings from the ALTITUDE-AD Clinical Trial Population

Semi-structured interviews were conducted with 38 participants and their study partners prior to treatment in the ALTITUDE-AD Phase 2 study. Participants described pervasive memory-related challenges including forgetfulness, difficulty completing tasks, and communication difficulties. Emotional impacts, frustration, worry, and reduced confidence contributed to social withdrawal and reduced activity participation. Participants also reported actively managing others' perceptions of their symptoms through masking and selective disclosure. Together, results illustrate the diverse ways individuals with early Alzheimer's disease experience, respond to, and cope with cognitive and functional changes, underscoring the importance of capturing patient experience directly to better understand meaningful benefit at this stage of disease.

"Two of the most persistent challenges in Alzheimer's drug development are getting therapeutics where they need to go in the brain and truly understanding what matters to patients living with the disease," said Eric Siemers, M.D., Chief Medical Officer of Acumen Pharmaceuticals. "The data we've presented at AAIC speaks directly to both. Our collaborative work with JCR continues to push the boundaries of what's possible with brain delivery, while our patient experience findings remind us why this work matters so deeply."

The data posters presented will be available on the Company's website at: https://acumenpharm.com/publications/.

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. Topline results are expected in late 2026. 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 toxic soluble AβOs, in its ongoing Phase 2 clinical trial ALTITUDE-AD (NCT06335173) in early symptomatic AD, following positive results in its Phase 1 trial INTERCEPT-AD. Acumen is 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™)-enabled 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.

About the J-Brain Cargo® Platform Technology

JCR Pharmaceuticals has developed a proprietary blood-brain barrier (BBB)-penetrating technology, J-Brain Cargo®, to bring biotherapeutics into the central nervous system (CNS). The first drug developed based on this technology is IZCARGO™ (INN: pabinafusp alfa) and is approved in Japan for the treatment of a lysosomal storage disorder.

About JCR Pharmaceuticals Co., Ltd.

JCR Pharmaceuticals Co., Ltd. is a global specialty pharmaceutical company that develops treatments that go beyond rare diseases to solve the world's most complex healthcare challenges. JCR continues to build upon our 50-year legacy in Japan while expanding our global footprint into the US, Europe, and Latin America. JCR's innovative therapies in Japan address conditions like growth disorder, MPS II (Hunter syndrome), Fabry disease, acute graft-versus-host disease, and renal anemia. JCR is also advancing the global development for rare diseases like MPS I (Hurler, Hurler-Scheie and Scheie syndrome), MPS II, MPS IIIA and B (Sanfilippo syndrome type A and B), and more. For more information, visit https://jcrpharm.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 "believes," "expects," "anticipates," "could," "should," "would," "seeks," "aims," "plans," "potential," "will," "milestone" 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 Acumen's business, the therapeutic potential of Acumen's product candidate, sabirnetug (ACU193) and ACU 234, and the potential to develop a candidate to treat Alzheimer's Disease utilizing EBD technology. These statements are based upon the current beliefs and expectations of Acumen 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.

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