Acumen Pharmaceuticals Presents Studies on Enhanced Brain Delivery™, Biomarker Research, and Novel Antibodies at Advances in Alzheimer's Treatment at International Conference on Alzheimer's and Parkinson's Diseases 2026

March 17, 2026

NEWTON, Mass., March 17, 2026 (GLOBE NEWSWIRE) -- Acumen Pharmaceuticals, Inc. (NASDAQ: ABOS), 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 research findings at the International Conference on Alzheimer's and Parkinson's Diseases and Related Neurological Disorders (AD/PD), taking place March 17-21, in Copenhagen and online. Shared in one oral and two poster presentations, the data showcase efforts to advance AD treatment through three key areas which include: developing enhanced brain delivery (EBD™) methods for sabirnetug by developing bispecific antibodies that additionally target Transferrin receptors to improve drug penetration across the blood-brain barrier; evaluating novel biomarker approaches using NULISAseq™ technology to better monitor treatment responses in the central nervous system; and creating highly selective antibodies that specifically target toxic AβOs while avoiding non-toxic monomeric forms of the protein.

"These presentations collectively demonstrate how we're addressing the key challenges that have limited success in Alzheimer's drug development – delivery, measurement, timing, and selectivity," said Jim Doherty, President and Chief Development Officer of Acumen. "Our enhanced brain delivery work with JCR Pharmaceuticals tackles the fundamental problem of increasing bioavailability of therapeutics across the blood-brain barrier, while our biomarker research provides better tools for measuring treatment effects – expanding our understanding of these effects and early disease mechanisms. Lastly, our novel antibody development is purposely driving toward an increased selectivity for oligomers to ensure we're targeting the right pathological species. This integrated approach reflects our belief that successful Alzheimer's therapeutics require innovation across multiple aspects."

Enhanced Brain Delivery™ of Sabirnetug After Fusion with an Anti-Transferrin Receptor Antibody Fragment in a Mouse Model of Alzheimer's Disease

In collaboration with JCR Pharmaceuticals (JCR), Acumen Pharmaceuticals investigated methods to help increase the brain penetration of sabirnetug and potentially address critical limitations of traditional antibodies in treating neurological conditions. Using J-Brain Cargo®, JCR's clinically validated platform targeting the transferrin receptor (TfR) to facilitate brain uptake, the teams prepared three Bispecific Antibodies of sabirnetug with antibody fragments targeting murine TfR (mTfR), each with varying mTfR affinities. The AβO affinity and selectivity of each fusion protein were measured via surface plasmon resonance (SPR), while plasma and total brain pharmacokinetics were measured in wild-type mice following a 2 mg/kg IV injection; brain exposure and target engagement were assessed in ARTE10 AD mice 24 hours after the 2 mg/kg IV injection with immunohistochemistry. Findings demonstrate that Acumen's EBD™ technology utilizing TfR increases sabirnetug brain exposure while preserving target engagement as demonstrated by AβO selectivity.

Sabirnetug Biomarker Treatment Responses: Exploratory Evaluation of the CNS Disease Panel NULISAseq™

The Phase 1 INTERCEPT-AD study demonstrated clear, treatment-related biomarker changes following a brief sabirnetug administration. Acumen used the protein-multiplex NULISAseq™ CNS Disease Panel to measure 127 proteins reflecting amyloid and tau pathology, synaptic function, neuroinflammation and neurodegeneration. Sabirnetug-associated effects were observed in key Alzheimer's disease biomarkers, including the pTau217/Aβ42 ratio, Aβ1-38, and GFAP. The analysis also revealed biologically meaningful correlations across Aβ proteoforms, phosphorylated tau species, and neurofilament markers, further strengthening mechanistic confidence. Importantly, NULISAseq™ results showed strong concordance with established clinical platforms (Lumipulse® and ELISA), demonstrating cross-platform robustness and supporting future use of CNS Disease Panels in sabirnetug development. A dedicated bioanalytical database has now been established to enable expanded exploratory analyses, including integration with the ongoing Phase 2 ALTITUDE-AD study. This approach expands our understanding of sabirnetug's pharmacodynamic signature and efforts towards optimized treatments strategies for Alzheimer's patients.

Development and Characterization of Novel Antibodies Targeting Amyloid Beta Oligomers with High Selectivity

Given the role of soluble AβOs as early, persistent drivers of AD pathogenesis, Acumen sought to develop and characterize novel, highly selective anti-AβO antibodies to further enhance selectivity for AβOs over Aβ monomers, which are ≥7,000-fold more abundant in AD biofluids and tissues. Researchers used SPR to measure antibody affinity and selectivity of these novel anti-AβO monoclonal antibodies (mAbs) for AβOs compared to monomers (Aβ1-28 and Aβ1-40). The study identified three novel AβO mAbs of interest, with ACU234 demonstrating notable selectivity – approximately 21,000-fold greater affinity for oligomeric versus monomeric Aβ. ACU234 underwent further evaluation using both *in vitro* and *in vivo* models of target engagement, including staining human brain samples from AD and controls compared to known Aβ mAbs, and injection into ARTE10 transgenic (Tg) mice to assess brain localization. Results confirmed ACU234's ability to bind disease-relevant AβOs and endogenous AβOs in AD brain tissue and Tg mice, respectively, consistent with its characterization as a novel antiAβO mAb with high selectivity and affinity. Further work is needed to characterize ACU234 and explore its potential as an AβO-targeting therapeutic.

The data posters presented will be available after each poster session concludes 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 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.

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 address conditions like growth disorder, MPS II, Fabry disease, acute graft-versus-host disease, and renal anemia. JCR is also developing treatments for rare diseases like MPS I, MPS II, MPS IIIA 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.

Investors:
Alex Braun
abraun@acumenpharm.com

Media:
ICR Healthcare
AcumenPR@icrhealthcare.com