Lancet Neurology Study Using Alamar Biosciences' Technology Reveals Divergent Biological Responses to Alzheimer's Treatment

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Blood biomarkers associated with amyloid clearance differ from those associated with cognitive decline in patients receiving lecanemab

FREMONT, Calif., Sept. 24, 2026 (GLOBE NEWSWIRE) -- Alamar Biosciences, Inc. (Nasdaq: ALMR), a leader in precision proteomics dedicated to enabling the earliest detection of disease, today announced the publication in *The Lancet Neurology* of the first longitudinal cohort study to evaluate a broad panel of plasma biomarkers in patients receiving anti-amyloid antibody therapy in real-world clinical practice. The study shows that patients with early symptomatic Alzheimer's disease exhibit markedly different biological responses during treatment with lecanemab.

Led by investigators at Washington University School of Medicine in St. Louis, the study used Alamar's NULISAseq™ CNS 120 panel to measure 130 plasma proteins spanning amyloid and tau pathology, inflammation, neurodegeneration and synaptic function. Researchers profiled 2,385 samples from 1,967 participants using just 25 microliters of plasma per sample, including patients receiving lecanemab as part of standard clinical care at the Washington University Memory Diagnostic Center and untreated comparison groups from the Knight Alzheimer Disease Research Center.

"Anti-amyloid therapies are now part of routine care, but until now we have had a very narrow window into what is actually happening biologically in the patients receiving them," said Carlos Cruchaga, PhD, Professor of Psychiatry and director of the NeuroGenomics and Informatics Center at Washington University School of Medicine, and co-senior author of the study. "Our findings show that Alzheimer's disease and neurodegeneration biomarkers have unique trajectories that capture specific biological process associated with treatment response."

The proteins associated with amyloid clearance were largely different from those associated with subsequent cognitive decline. The findings show that amyloid clearance and cognitive response reflect different biological processes, helping explain why clearing amyloid does not produce the same degree of clinical benefit in every patient, a pattern observed both in this cohort and across anti-amyloid trials.

Additionally, among 197 patients treated with lecanemab, 34 of the 130 biomarkers measured significantly changed with the number of infusions received, and they did not all move in the same direction. Among the proteins that most strongly distinguished these patients from controls, the brain-derived forms of tau consistently outperformed the same proteins circulating in the periphery, accounting for four of the top five both before treatment and at the last infusion stage. Separating tau that originates in the brain from its systemic counterpart requires both high specificity for the brain-derived form and the sensitivity to detect it at very low concentrations. Measuring these variants alongside more than 100 additional proteins in a single sample is what allowed the investigators to track pathology and treatment response in one assay.

"This study shows why measuring one or two biomarkers is not enough to understand what is happening during treatment and why ultra-high sensitivity matters," said Yuling Luo, PhD, founder, CEO and chair of Alamar Biosciences. "Alamar's precision proteomics platform gives researchers a much richer picture of treatment response and helps us understand why patients with the same diagnosis can have very different outcomes."

About Alamar Biosciences
Alamar is a commercial-stage proteomics company establishing a gold standard in protein detection and analysis. Leveraging our proprietary NULISA™ technology and the ARGO® HT System, our platform is designed to detect protein biomarkers at extremely low concentrations in blood with ultra-high sensitivity, high specificity, flexible multiplexing, broad dynamic range and seamless automation. We refer to this combination of features as "Precision Proteomics," and believe it fills a critical gap in the field of advanced proteomics, helping researchers unlock the full spectrum of protein biomarkers across disease states. Learn more at alamarbio.com.

Forward Looking Statements
This press release may contain forward-looking statements, including statements made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. These statements may be identified by words such as "aims," "anticipates," "believes," "could," "estimates," "expects," "forecasts," "intends," "may," "plans," "possible," "potential," "seeks," "will" and variations of these words or similar expressions that are intended to identify forward-looking statements. Any such statements in this press release that are not statements of historical fact may be deemed to be forward-looking statements. These forward-looking statements include, without limitation, statements regarding the Alamar platform's capabilities, performance and impact, including its ability to provide richer insights into the treatment response of patients receiving anti-amyloid antibody therapy in real-world clinical practice. Any forward-looking statements in this press release are based on Alamar Biosciences' current expectations and

involve assumptions that may never materialize or may prove to be incorrect. Readers are cautioned that actual results could differ materially from those expressed or implied in Alamar Biosciences' forward-looking statements due to a variety of risks and uncertainties, which include, without limitation, risks and uncertainties related to intense competition in the proteomics market, exposure to legal proceedings, regulatory inquiries and other legal matters, failure to develop new assays or instruments, dependence on researchers who rely heavily on government funding, reductions in spending by research and academic institutions, the potential for products to be subject to more onerous regulation by the FDA or other regulatory requirements, the complexity of manufacturing Alamar Biosciences' instruments and consumables, failure to obtain marketing authorizations for future products that are intended for clinical or diagnostic use, Alamar Biosciences' ability to protect its intellectual property, and the other risks described in Alamar Biosciences' filings with the U.S. Securities and Exchange Commission, including its Quarterly Report on Form 10-Q filed with the SEC on , 2026. Alamar Biosciences explicitly disclaims any obligation to update any forward-looking statements except to the extent required by law.

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