Altimmune Presents Data on the Effect of Pemvidutide on Cardioinflammatory Lipids during Oral Presentation at American Diabetes Association's 84th Annual Scientific Sessions

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Pemvidutide elicited significant weight loss and decreases in pro-inflammatory serum lipids associated with atherogenesis and cardiovascular disease risk

GAITHERSBURG, Md., June 22, 2024 (GLOBE NEWSWIRE) -- Altimmune, Inc. (Nasdaq: ALT), a clinical-stage biopharmaceutical company, today presented data on the effect of pemvidutide, its GLP-1/glucagon dual receptor agonist candidate in development for obesity and metabolic dysfunction-associated steatohepatitis (MASH), on cardioinflammatory lipids at the American Diabetes Association's (ADA) 84 th Scientific Sessions.

"Dyslipidemia is one of the most significant co-morbidities of obesity, impacting up to 70% of patients with obesity," said Vipin K. Garg, Ph.D., President and Chief Executive Officer of Altimmune. "These data add to the differentiated profile of pemvidutide and reinforce its potential to reduce inflammatory lipids associated with cardiovascular plaque formation and cardiovascular risk in patients with obesity."

Dysregulated lipid profiles in obesity can cause systemic inflammation and elevate cardiovascular disease (CVD) risk. To better understand the potential impact of pemvidutide on lipoprotein and glycoprotein biomarkers of CVD inflammation, samples were analyzed from the 12-week, randomized placebo-controlled Phase 1 study of pemvidutide in subjects with overweight or obesity but not type 2 diabetes. In the study, 34 subjects were randomly assigned 1:1:1:1 to pemvidutide (1.2mg, 1.8mg and 2.4mg) or placebo administered once-weekly subcutaneously for 12 weeks. Lipidomic, lipoparticle and glycoprotein profiling was conducted using ultra-high performance liquid chromatography-mass spectrometry and proton nuclear magnetic resonance on plasma samples at baseline and after 12 weeks of treatment.

Serum lipids including total cholesterol, low density lipoprotein cholesterol (LDL-C), and triglycerides were reduced by 28%, 26% and 38% respectively. The reductions in each class of these lipids were not correlated with weight loss, suggesting that lipid effects were due to the direct impact of pemvidutide on lipid metabolism. A detailed analysis showed pemvidutide significantly reduced small dense LDL-C, short-chain diglycerides with higher degree of saturation, lysophosphatidylinositols, lysophosphatidylcholines and sphingolipids, all lipids with a strong association with CVD. Reductions in GlycA and GlycB, biomarkers of systemic inflammation that are known to correlate with heart failure, were also observed. In addition to the reductions in weight and serum lipids, treatment with pemvidutide resulted in reductions to systolic and diastolic blood pressure across all dose groups, suggesting that pemvidutide may have pleiotropic effects that may contribute to decreased CVD risk.

About Pemvidutide

Pemvidutide is a novel, investigational, peptide-based GLP-1/glucagon dual receptor agonist in development for the treatment of obesity and MASH. Activation of the GLP-1 and glucagon receptors is believed to mimic the complementary effects of diet and exercise on weight loss, with GLP-1 suppressing appetite and glucagon increasing energy expenditure. Glucagon is also recognized as having direct effects on hepatic fat metabolism, which is believed to lead to rapid reductions in levels of liver fat and serum lipids. In clinical trials to date, once-weekly pemvidutide has demonstrated compelling weight loss, robust reductions in triglycerides, LDL cholesterol, liver fat content and blood pressure. The U.S. FDA has granted Fast Track designation to pemvidutide for the treatment of MASH. Pemvidutide recently completed the MOMENTUM Phase 2 obesity trial and is being studied in the ongoing IMPACT Phase 2b MASH trial.

About Altimmune

Altimmune is a clinical-stage biopharmaceutical company focused on developing innovative next-generation peptide-based therapeutics. The Company is developing pemvidutide, a GLP-1/glucagon dual receptor agonist for the treatment of obesity and MASH. For more information, please visit www.altimmune.com.

Forward-Looking Statement

Any statements made in this press release relating to future financial or business performance, conditions, plans, prospects, trends, or strategies and other financial and business matters, including without limitation, the timing of key milestones for our clinical assets, and the prospects for the utility of, regulatory approval, commercializing or selling any product or drug candidates, are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. In addition, when or if used in this press release, the words "may," "could," "should," "anticipate," "believe," "estimate," "expect," "intend," "plan," "predict" and similar expressions and their variants, as they relate to Altimmune, Inc. may identify forward-looking statements. The Company cautions that these forward-looking statements are subject to numerous assumptions, risks, and uncertainties, which change over time. Important factors that may cause actual results to differ materially from the results discussed in the forward looking statements or historical experience include risks and uncertainties, including risks relating to: delays in regulatory review, manufacturing and supply chain interruptions, access to clinical sites, enrollment, adverse effects on healthcare systems and disruption of the global economy; the reliability of the results of studies relating to human safety and possible adverse effects resulting from the administration of the Company's product candidates; the Company's ability to manufacture clinical trial materials on the timelines anticipated; and the success of future product advancements, including the success of future clinical trials. Further information on the factors and risks that could affect the Company's business, financial conditions and results of operations are contained in the Company's filings with the U.S. Securities and Exchange Commission, including under the heading "Risk Factors" in the Company's most recent annual report on Form 10-K and our other filings with the SEC, which are available at www.sec.gov.

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