



Altimmune Announces Additional Positive Data from Its Phase 2a Study of NasoVAX Intranasal Influenza Vaccine

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Six-month data demonstrates:

- A statistically superior mucosal immune response providing a first line of defense against infection;
- A durable serum immune response at six months compared to over 50% decline with Fluzone®;
- Continued clean safety profile.

GAITHERSBURG, Md., Sept. 04, 2018 (GLOBE NEWSWIRE) -- Altimmune, Inc. (Nasdaq: ALT), a clinical-stage immunotherapeutics company, today announced additional positive data from a Phase 2a study of its NasoVAX intranasal influenza vaccine candidate. The Company previously announced positive results from the study in 60 healthy individuals, in which NasoVAX was well-tolerated at all doses, resulted in 100% seroprotection at the two highest dose levels and elicited influenza neutralizing antibodies similar to Fluzone® (a licensed injected influenza vaccine). NasoVAX also demonstrated the ability to elicit a significant T cell immune response as compared to Fluzone. Subjects were followed for an additional six months after vaccination to assess durability of the antibody response. These new NasoVAX data demonstrate (a) a durable, dose dependent protective immune response, (b) significant mucosal immune response one month after vaccination compared to both placebo and Fluzone, and (c) a clean safety profile.

An influenza specific mucosal antibody (IgA) response was demonstrated at all dose levels of NasoVAX, with the highest responses in the highest dose groups, while Fluzone and placebo groups demonstrated no response. Mucosal antibodies can be found in tears, saliva and nasal mucous and are a first line of immune defense thereby preventing influenza infection at the site of entry in the respiratory tract.

Serum antibody levels for NasoVAX were very stable through at least six months (the last time point tested), unlike Fluzone where antibody levels declined by over 50% during that time period. Flu season typically runs from October through March in the northern hemisphere according to the Centers for Disease Control (CDC), but most individuals are vaccinated very early in the Fall. The fact that NasoVAX induced antibodies that were very stable over the six month follow up period may indicate a higher likelihood of protection throughout the entire flu season.

"The data are consistent with our expectations and we are quite pleased to see such impressive results. With strong seroprotection, clear dose-dependent results, unique T cell and mucosal immune responses and a clean safety profile, we are extremely encouraged by the data and look forward to initiating additional Phase 2 studies in 2019," said William J. Enright, president and chief executive officer of Altimmune. "We have not seen the breadth of immune responses like these from other influenza vaccines, and we are excited to continue to advance development of this important product candidate."

Mr. Enright continued, "NasoVAX is egg-free and needle-free. We believe that an intranasally administered flu vaccine will be preferred by patients over traditional injected vaccines. Additionally, because NasoVax is grown in cell culture instead of in chicken eggs, we believe NasoVax will eliminate the risk of egg allergies with the potential to enable us to more quickly mass produce vaccine at scale and have potentially better matches to annual circulating strains. We believe NasoVAX to be a very differentiated and superior vaccine to those available on the market right now."

Earlier this year, the Company announced initial data from the Phase 2a trial, which demonstrated 100% seroprotection for the middle and high dose groups of NasoVAX as compared to 95% seroprotection with Fluzone. Mean serum antibody titers against influenza, as measured by the hemagglutinin inhibition and microneutralization assays increased up to 4.3-fold and 5.2-fold respectively, indicating that high levels of immunity were induced in this study population even with prior immunity to the influenza strain (A/California/04/2009). The serum neutralizing antibody responses were also robust and dose dependent. Seroconversion rates and breadth of antibody response were comparable to Fluzone for the highest NasoVAX dose tested. Additionally, compared to Fluzone, the highest dose of NasoVAX induced over nearly 6-fold higher levels of influenza cellular immunity, an important element in stopping the flu virus from spreading. Cellular immunity also has the potential to fight against mismatched strains. All doses of NasoVAX were well tolerated and there were no cases of fever, serious adverse events (SAEs) or discontinuations. Rates of local and systemic side effects did not increase with dose and were not statistically different than placebo.

The company will present the full data-set from this NasoVAX Phase 2 trial at IDWeek, an international infectious disease conference, in San Francisco, California in October of this year.

About the Phase 2a NasoVAX Trial

The randomized Phase 2a study compared a monovalent NasoVAX vaccine against an H1 strain of influenza (A/California/04/2009) to intranasal placebo in 60 healthy adults across three dose ranges (10^9 virus particles (vp), 10^{10} vp and 10^{11} vp). In a parallel open label study, a similar population of 20 subjects were given Fluzone®, a licensed injectable influenza vaccine. Blood samples from both studies were tested and the lab was blinded to treatment assignment.

About Altimmune

Altimmune is a clinical-stage immunotherapeutics company focused on the development of products to stimulate robust and durable immune responses for the prevention and treatment of infectious disease. NasoVAX our influenza vaccine candidate has unique characteristics, stimulating multiple arms of the immune system that offer the potential to stop infection and the spread of flu, while being easier to administer through an intranasal spray. NasoShield is a next-generation anthrax vaccine candidate that is intended to improve protection and safety while having favorable dosage and storage requirements compared to other anthrax vaccines.

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 prospects for 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 Altimune, Inc. (the “Company”) 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: the terms of the Company's Series B preferred stock offering and related warrants; our lack of financial resources and access to capital; realizing the benefits of the merger between Altimune, Inc. and PharmAthene, Inc.; our ability to utilize the benefits of our tax assets and the results of a tax examination initiated by the IRS; clinical trials and the commercialization of proposed product candidates (such as marketing, regulatory, product liability, supply, competition, dependence on third parties and other risks); the regulatory approval process; dependence on intellectual property; the Company's BARDA contract and other government programs, reimbursement and regulation. 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 annual reports on Form 10-K and quarterly reports on Form 10-Q filed with the SEC, which are available at www.sec.gov.

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