# Altimmune Partners with Summit Biosciences to Produce a Multidose Nasal Spray Presentation of its AdCOVID™ Vaccine Candidate

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**Metered Multidose Device Allows for Convenient and Cost-effective Vaccination**

GAITHERSBURG, Md., March 22, 2021 (GLOBE NEWSWIRE) -- Altimmune, Inc. (Nasdaq: ALT), a clinical-stage biopharmaceutical company, announced today that it has retained Summit Biosciences, a world-wide leader in nasal spray pharmaceuticals, to manufacture a metered nasal spray presentation of AdCOVID, its intranasal COVID-19 vaccine candidate. AdCOVID is an adenovirus-vector vaccine designed to stimulate a broad immune response following a single vaccination that includes both systemic immunity (neutralizing antibody) and local immunity (mucosal IgA and resident memory T cells) in the nasal cavity and respiratory tract.

"As we continue to build our manufacturing consortium and progress the development of AdCOVID, we are pleased to partner with Summit Biosciences to manufacture AdCOVID in a customized multidose nasal spray delivery device. We expect this device may be a convenient and efficient option when vaccinating patients in high-demand settings where our vaccine candidate's anticipated room temperature stability profile will also be important," said Vipin K. Garg, President and Chief Executive Officer of Altimmune. "In addition, Altimmune will continue to produce a single dose presentation of AdCOVID to provide alternative forms of administration. Summit Biosciences has expertise in intranasal product innovation, and we are excited to align with their highly experienced team in our fight against COVID-19."

Gregory Plucinski, President and COO, Summit Biosciences, said, "I am pleased that Altimmune, a recognized leader in intranasal vaccine development, selected Summit in this exciting endeavor. Summit has a proven track record in bringing nasal spray medicines from concept to market with its state-of-the-art capabilities that are ideal for this program. Together, we will combine our respective expertise and capabilities with the goal of ultimately introducing a potentially novel, needle-free, nasal spray vaccine for the SARS-CoV-2 pandemic."

AdCOVID is currently being evaluated in a Phase 1 clinical trial. The Phase 1 trial is evaluating the safety and immunogenicity of AdCOVID in healthy adult volunteers between the ages of 18 and 55. Subjects will receive AdCOVID at one of three dose levels administered as a nasal spray. In addition to the primary study endpoint of safety and tolerability, the immunogenicity of AdCOVID will be evaluated by serum IgG binding and neutralizing antibody titers, mucosal IgA antibody from nasal samples, and T cell responses. Altimmune anticipates having a data readout from this Phase 1 trial in Q2 2021.

While traditional vaccines delivered by an intramuscular injection can stimulate systemic immunity as measured in the blood, they have not been shown to induce mucosal immunity in the nasal cavity, which may be critical for blocking transmission of the virus. AdCOVID is designed to deliver vaccine directly to the site of viral entry and replication to stimulate mucosal and cellular immunity in the nasal cavity and respiratory tract, thereby potentially offering an important early defense against the SARS-CoV-2 virus. The ability to stimulate mucosal and resident T cell immunity in the respiratory tract would be a key differentiator for AdCOVID and may play a critical role in blocking transmission of the SARS-CoV-2 virus.

**About AdCOVID**

AdCOVID is a single-dose intranasal vaccine candidate for COVID-19. It is designed to stimulate a broad immune response including both systemic immunity (neutralizing antibody) and local immunity (mucosal IgA, resident memory T cells) in the nasal cavity and respiratory tract.

In published preclinical studies (www.biorxiv.org/content/10.1101/2020.10.10.331348v1) conducted in collaboration with the University of Alabama at Birmingham, potent serum neutralizing antibody responses, T cell responses, and a robust induction in mucosal immunity were observed in mice following a single intranasal dose of AdCOVID. Mucosal immunity was characterized by IgA antibody and resident memory T cell responses in the respiratory tract, both of which are believed to be important in fighting infection, and importantly, transmission. In preclinical efficacy studies, AdCOVID provided 100% protection against lethal SARS-CoV-2 challenge and a 3-log reduction in viral titer in the nasal cavity and respiratory tract.

Based on data from Altimmune's other intranasal platform vaccine candidates, AdCOVID is expected to have extended stability at room temperature that would allow for cold chain-free shipment of the vaccine. If demonstrated, AdCOVID could be stored in the common refrigerators found in community-based doctors' offices and pharmacies for two years or more. The Company believes that these simple and convenient handling requirements, together with the potential ability to block SARS-CoV-2 transmission, could position AdCOVID as a leading intranasal COVID-19 vaccine.

**About Summit Biosciences**

Founded in 2009, Summit Biosciences, Inc. of Lexington, KY is a privately-held, specialized pharmaceutical company focused on developing, manufacturing and commercializing generic and innovative nasal spray medicines. It collaborates on the development of products with its clients and manufactures them at an industrial scale primarily for commercialization in the US and Europe. For more information on Summit Biosciences, please visit www.Summitbiosciences.com.

**About Altimmune**

Altimmune is a clinical stage biopharmaceutical company focused on developing intranasal vaccines, immune modulating therapies and treatments for liver disease. Our diverse pipeline includes proprietary intranasal vaccines for COVID-19 (AdCOVID™), anthrax (NasoShield™) and influenza (NasoVAX™); an intranasal immune modulating therapeutic for COVID-19 (T-COVID™); and next generation peptide therapeutics for NASH (ALT-801) and chronic hepatitis B (HepTcell™). For more information on Altimmune, please visit www.altimmune.com.

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**Forward-Looking Statement for Altimmune**

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, the timing of the data readout from the AdCOVID Phase 1 clinical trial in Q2 2021, the potential immunization effects of AdCOVID, the potential of AdCOVID to block SARS-CoV-2 transmission, the shipping and storage requirements for AdCOVID, the prospects for regulatory approval, our ability to manufacture AdCOVID for our clinical trials and commercial needs, and 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. (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: potential impacts due to the COVID-19 pandemic such as 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 and commercial supply on the timelines anticipated; the Company’s ability to secure manufacturing approval from its SARS-CoV-2 cell licensor 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 annual report on Form 10-K for the fiscal year ended December 31, 2020 filed with the SEC, which is available at www.sec.gov.

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