



**ALTIMUNE CHIEF SCIENTIFIC OFFICER TO PRESENT
AT TWO PREMIER VACCINE CONFERENCES**

Gaithersburg, Maryland – Oct. 12, 2015- [Altimune, Inc.](#), (formerly Vaxin Inc.) a clinical stage immunotherapy and vaccine company, today announced that [Chief Scientific Officer M. Scot Roberts](#), PhD, will present at two premier vaccine conferences in the coming weeks. The first is [Bacillus ACT 2015](#), the international conference on *Bacillus anthracis*, *B. cereus* & *B. thuringiensis*, to be held later this month in New Delhi, India. The second is [Vaccines R&D-2015](#), presented by the United Scientific Group, which takes place in Baltimore, MD in early November. Both venues will feature scientists from industry, academia, government labs and agencies, and non-profit organizations who will gather to discuss new research discoveries and influential therapies, and share best practices relating to vaccine development.

In the first presentation, Dr. Roberts will discuss recent pre-clinical trial results concerning NasoShield™ (formerly AdVAV™), Altimune's anthrax vaccine candidate. The second talk will examine the impact a particular vaccine platform technology can have on the ability to meet current vaccine challenges. In this presentation, Dr. Roberts will reveal how Altimune is exploiting two independent and complementary platform technologies to develop vaccines and immunotherapies for influenza, chronic hepatitis B, anthrax, and cancer.

The conference line-up is as follows:

Bacillus ACT 2015, Oct. 27-31

Paper Title: "Single intranasal dose of NasoShield provides protection in a *Bacillus anthracis* aerosolized spore challenge model in NZW rabbits and cynomolgus macaques".

Co-Authors: V. Krishnan, C. Shoemaker, B.A. Andersen, G.S. Sivko, G.V. Stark, J. Zhang, T. Feng, V.A. Haque, and M. Scot Roberts.

Abstract

NasoShield is a replication-deficient adenovirus type 5-vectored vaccine expressing the B. anthracis protective antigen (PA83) being developed for the prevention and treatment of disease caused by inhalation of aerosolized anthrax spores. Three efficacy studies of intranasally administered NasoShield have been conducted in a New Zealand White (NZW) rabbit spore inhalation challenge model. The vaccine was well-tolerated and demonstrated dose-dependent immunogenicity and consistent protection following lethal spore challenge, including complete protection in the presence of preexisting immunity against the vector. In a head-to-head comparison of survival against the currently approved anthrax vaccine (BioThrax®, anthrax vaccine adsorbed), a single intranasal dose of NasoShield was non-inferior to two intramuscular injections of BioThrax and provided complete protection from disease following spore inhalation at 70 days post-vaccination with NasoShield. Vaccination with NasoShield produced serum anti-PA83 and toxin neutralizing antibody (TNA) titers with earlier onset and greater stability as

compared BioThrax. Logistic regression analysis of the rabbit TNA antibody titer and survival data indicated that protective immunity associated with a 95% probability of survival may be established as early as 14 days following a single intranasal administration of NasoShield. Antibody levels to the adenoviral vector backbone following intranasal delivery were low and correlated with dose. In cynomolgus macaques a single low intranasal dose of NasoShield was immunogenic and provided 83% protection (5/6) against spore challenge despite immunization of the animals with wild type adenovirus one month prior to vaccination with NasoShield to intentionally induce anti-vector immunity. TNA titers correlated with protection. Together these data demonstrate that vaccination with NasoShield is well-tolerated and can provide rapid and stable protection against inhalational anthrax following a single intranasal administration in rabbits and non-human primate disease models. Portions of this work were supported by National Institute of Allergy and Infectious Diseases and the Biomedical Advanced Research and Development Authority.

Vaccines R&D-2015, Nov. 2-4

Paper Title: "The right fit: Matching the vaccine platform to the disease indication".

Co-Authors: Bertrand Georges, Vyjayanthi Krishnan, James Francis, Jianfeng Zhang, Katie Anderson, Christine Shoemaker, Ray Feng, and M. Scot Roberts.

Abstract

Selection of a particular vaccine platform technology can have an important impact on the ability to meet current vaccine challenges. We are exploiting two independent and complementary platform technologies to develop vaccines and immunotherapies for influenza, chronic hepatitis B, anthrax and cancer. RespirVec™ is an intranasally administered replication-deficient adenoviral vector technology that underlies our influenza and anthrax vaccine indications. For these indications, a strong humoral response is required in order to neutralize the spread of the pathogen or the activity of the toxin, respectively. Because RespirVec infects cells of the respiratory tract and expresses the vaccine antigen intracellularly, other components of the immune system may also be activated including T cell, innate immunity, and mucosal immunity as a result of the intranasal route of delivery. Humoral immunity is expected to play a less important role in the immunotherapy of chronic infections and cancer. We are developing immunotherapies for the treatment of chronic hepatitis B and cancer that are based on our Densigen technology platform. Densigens™ are long synthetic peptides that are dense in helper and cytotoxic T cell epitopes to overcome the HLA restriction issue that has limited peptide-based strategies in the past. Densigens are also modified through the inclusion of an inert fluorocarbon tail that preclinically facilitated aggregation of the peptide antigens to create a depot-like effect at the site of injection and enhancing the immunogenicity of the antigens. By including peptide antigens representing multiple conserved proteins, a broad immune response resistant to immune escape may be achieved.

About Altimmune

Altimmune is a clinical stage biotechnology company developing next-generation immunotherapeutics and vaccines to address significant public health and biodefense needs. By leveraging specific attributes of its two independent and complementary platform technologies, Altimmune can rapidly design product candidates against a wide range of disease targets, including respiratory diseases, chronic infections, and cancer. Our Densigen™ T-cell platform technology is uniquely suited to direct the immune response against traditionally difficult disease targets, including chronic infections and cancer, by directing an individual's immune system against multiple target antigens instead of just one. Altimmune's RespirVec™ platform utilizes convenient needle-free intranasal delivery to achieve broad

immunity against disease pathogens more rapidly than conventional vaccines. Altimune's product candidates are easily manufactured, highly stable, and provide a safe, effective alternative to current products. www.altimmune.com.

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