



In Vivo Efficacy Data Presented from Alnylam RSV Program at the American Academy of Allergy, Asthma and Immunology Meeting

Lead Candidate RNAi Therapeutic ALN-RSV01 Potently Inhibits RSV Replication In Vivo

CAMBRIDGE, Mass., Mar 18, 2005 (BUSINESS WIRE) -- Alnylam Pharmaceuticals, Inc. (Nasdaq: ALNY), a leading RNAi therapeutics company, announced today the presentation of in vivo efficacy data on its lead candidate RNAi therapeutic for the treatment of respiratory syncytial virus (RSV) infection at The Annual Meeting of the American Academy of Allergy, Asthma and Immunology (AAAAI) in San Antonio, Texas. Experiments performed by researchers at Alnylam and collaborators from the University of Georgia demonstrated that a single low dose of Alnylam's lead RSV candidate, ALN-RSV01, an optimized siRNA, inhibits RSV replication both as a prophylactic and as a treatment when administered by intranasal delivery in a liquid form. Alnylam collaborator Dr. Ralph Tripp, Ph.D., Department of Infectious Diseases, University of Georgia presented the results.

"There is a significant need for novel therapies to effectively treat patients infected with RSV, a highly contagious virus that can lead to serious respiratory illnesses and hospitalization in vulnerable patient populations," said Dr. Tripp. "Our research with Alnylam bolsters the potential for RNAi therapeutics to treat patients with RSV infections, who until now, have had few or no therapeutic options."

ALN-RSV01 specifically silences an RSV gene required for viral replication. Pre-clinical studies performed in mice demonstrated that a single low dose of ALN-RSV01 (2 mg/kg) protected against subsequent RSV infection. ALN-RSV01 was also shown to be effective in the treatment of an existing RSV infection. Additional studies in mice demonstrated that intranasal administration of ALN-RSV01 did not activate an interferon response. Ongoing and future studies are analyzing the topical delivery of ALN-RSV01 to the lung by aerosolization through a nebulizer.

"Alnylam is rapidly progressing toward our goal of developing a safe and efficacious RNAi therapeutic for the treatment of RSV infection," said John Maraganore, Ph.D., President and Chief Executive Officer of Alnylam Pharmaceuticals. "Based on the encouraging pre-clinical data we have seen to date, we are driving ALN-RSV01 forward toward human clinical trials in the first half of 2006."

About RSV

RSV is a highly contagious virus that causes repeated infections in both the upper and lower respiratory tract. RSV infects nearly every child at least once by the age of two years and is a major cause of hospitalization due to respiratory infection in children and people with compromised immune systems and others. RSV infection typically results in cold-like symptoms but can lead to more serious respiratory illness such as croup, pneumonia, bronchiolitis, and, in extreme cases, death. RSV infection in the pediatric population accounts for greater than 100,000 hospitalizations per year in the United States. The development of childhood asthma is also known to occur after childhood RSV infection. As a result, there is a significant need for novel therapeutics to treat patients who become infected with RSV.

About RNA Interference (RNAi)

RNA interference, or RNAi, is a naturally occurring mechanism within cells for selectively silencing and regulating specific genes. Since many diseases are caused by the inappropriate activity of specific genes, the ability to silence and regulate such genes selectively through RNAi could provide a means to treat a wide range of human diseases. The discovery of RNAi has been heralded by many as a major breakthrough, and the journal *Science* named RNAi the top scientific achievement of 2002, as well as one of the top 10 scientific advances of 2003.

About Alnylam

Alnylam is a biopharmaceutical company seeking to develop and commercialize novel therapeutics based on RNA interference, or RNAi. Growing from its foundation as the world's first company focused on RNAi therapeutics, the company's leadership in the field of RNAi is supported by its preeminent founders and advisors and its strengths in fundamental patents, technology, and know-how that underlie the commercialization of RNAi therapeutics. Alnylam is developing a pipeline of RNAi products using Direct RNAi™ to treat ocular, central nervous system, and respiratory diseases and Systemic RNAi™ to treat a broad range of diseases, including oncology, metabolic, and autoimmune diseases. The company's global headquarters are in Cambridge, Massachusetts. For additional information, please visit www.alnylam.com.

Alnylam Forward Looking Statement

Various statements in this release concerning our future expectations, plans, prospects and future operating results constitute forward-looking statements for the purposes of the safe harbor provisions under The Private Securities Litigation Reform Act of

1995. Actual results may differ materially from those indicated by these forward-looking statements as a result of various important factors, including risks related to: our approach to discover and develop novel drugs, which is unproven and may never lead to marketable products; our ability to obtain additional funding to support our business activities; our dependence on third parties for development, manufacture, marketing, sales and distribution of our products; the successful development of products, all of which are in early stages of development; obtaining regulatory approval for products; competition from others using technology similar to ours and others developing products for similar uses; obtaining, maintaining and protecting intellectual property utilized by our products; and our short operating history; as well as those risks more fully discussed in the "Certain Factors That May Affect Future Results" section of our most recent Form 10-Q filed with the Securities and Exchange Commission. In addition, any forward-looking statements represent our views only as of today and should not be relied upon as representing our views as of any subsequent date. We do not assume any obligation to update any forward-looking statements.

SOURCE: Alnylam Pharmaceuticals, Inc.

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