



Alnylam Initiates RNAi Therapeutic Program for Pandemic Influenza; Collaboration with Leading Flu Researchers at University of Georgia to Develop an RNAi-Based Prevention and Treatment for Newly Emerging, Highly Pathogenic Flu

CAMBRIDGE, Mass.--(BUSINESS WIRE)--May 25, 2005--Alnylam Pharmaceuticals, Inc. (NASDAQ:ALNY), a leading RNAi therapeutics company, announced today a collaboration with researchers from the University of Georgia to discover and develop a Direct RNAi™ therapeutic for the treatment and prevention of respiratory infection from newly emerging, highly pathogenic strains of influenza (flu) virus. Alnylam will apply RNAi technology to the discovery of short interfering RNAs (siRNAs), the active molecules of RNA interference (RNAi), that target key flu genes required for virus replication and demonstrate potent anti-viral activity across human and avian flu strains.

Newly emerging flu strains, like the avian subtype H5N1 that has infected human patients with a high rate of mortality, may potentially trigger an influenza pandemic, or worldwide outbreak of disease, according to health officials from the United Nations, the World Health Organization, and the Centers of Disease Control and Prevention.

"Alnylam is committed to developing a therapeutic approach for the prevention and treatment of highly pathogenic influenza viral strains that could emerge with pandemic consequences," said John Maraganore, Ph.D., President and Chief Executive Officer of Alnylam Pharmaceuticals. "This collaboration with the researchers at the University of Georgia will allow us to accelerate our discovery program for an RNAi therapeutic that addresses this serious worldwide health concern."

"Due to the genetic unpredictability of emerging flu strains, the production of effective vaccines will be difficult, if not impossible, creating a pressing need to pursue new approaches to protect against a potential pandemic from highly pathogenic strains of influenza," said Professor Ralph Tripp, Department of Infectious Diseases, University of Georgia. "By harnessing the RNAi pathway, we could rapidly develop a strategic approach to protect or prevent the devastating consequences of a pandemic influenza virus outbreak."

Health experts generally agree that an influenza pandemic could occur in the near future, and that such a pandemic could result in a widespread loss of human lives. The goal of Alnylam's RNAi therapeutic program for influenza infection will be to employ optimized siRNAs that silence highly conserved sequences required for viral replication across human and avian flu strains, thereby yielding a novel prevention and treatment option for world-threatening outbreaks of highly virulent strains of flu. Alnylam is currently in discussions with U.S. and world-wide health organizations to further advance its efforts to develop an RNAi therapeutic for the treatment of pandemic flu.

About Pandemic Influenza

An influenza pandemic is a global outbreak of disease that occurs when a new flu virus appears in the human population, causes serious illness, and then spreads easily from person to person worldwide. Pandemic flu differs from seasonal outbreaks that are caused by subtypes, or strains, of influenza viruses that are already in existence among people and may be prevented by annual vaccines. A pandemic outbreak can be caused by new influenza subtypes, or by subtypes that have not circulated among people recently or ever before. It is believed that current flu vaccination may confer limited or no protection to newly emerging subtypes or strains of influenza virus. Past influenza pandemics have spread around the world within 1 year of being detected, leading to high levels of illness, death, social disruption, and economic loss. Major pandemic events of the past include the 1918-1919 "Spanish flu" (H1N1) that caused 500,000 deaths in the U.S. and approximately 50 million deaths worldwide; the 1957-1958 "Asian flu" (H2N2) that caused 70,000 deaths in the U.S.; and the 1968-1969 "Hong Kong flu" (H3N2) that caused 34,000 deaths in the U.S. An increasing number of reports have surfaced over the last seven years of an emerging avian flu that has resulted in three major outbreaks among poultry, as well as the deaths of many people in Southeast Asia.

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 Statements

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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