



Anylam and Isis Receive Exclusive License to Key microRNA Patents for Therapeutic Applications

Intellectual Property From Max Planck Society Strengthens Companies'

Leadership Positions In RNA-Based Drug Discovery and Development

CAMBRIDGE, Mass., and CARLSBAD, Calif., Oct. 19 /PRNewswire-FirstCall/ -- Anylam Pharmaceuticals, Inc. (Nasdaq: ALNY), the leading RNAi therapeutics company, and Isis Pharmaceuticals, Inc. (Nasdaq: ISIS), the leading company focused on novel therapeutics targeting RNA, announced today that they have co-exclusively licensed certain core intellectual property relating to all therapeutic uses of microRNA from the Max Planck Society. Garching Innovation GmbH, the Society's technology transfer agency, facilitated the transaction. microRNAs are naturally expressed small RNAs that interact with components shared by the RNA-induced silencing complex (RISC). RISC is an enzyme complex by which the RNA interference (RNAi) pathway operates. It is increasingly believed that microRNAs play a central role in the regulation of gene expression in mammalian cells, and abnormalities in their function may play a role in human disease. This licensing transaction greatly enhances each company's intellectual property portfolio, and its ability to discover and develop RNA therapeutics based on these mechanisms.

Under the terms of the agreement, the Max Planck Society granted rights to patent applications based on the microRNA work of Dr. Thomas Tuschl, a leading scientist in early siRNA research and one of the founders of Anylam. During his research efforts, Dr. Tuschl discovered more than 100 naturally occurring micro-RNAs that are present in mammalian cells. These microRNAs have the potential to be new drug targets or therapeutic products and are the subjects of the licensed patent applications.

"Anylam continues to be at the forefront of the science, technology, and intellectual property in the field of RNAi, and is uniquely positioned to develop and commercialize double-stranded RNAi therapeutics," said John Maraganore, Ph.D., President and Chief Executive Officer of Anylam Pharmaceuticals. "The fundamental cellular importance of microRNAs has the potential to yield new therapeutic products to treat a wide range of human diseases."

"Our license to these Tuschl patents enriches Isis' strong intellectual property position in RNA-based drug discovery. We are enthusiastic about the potential of this new class of drug targets. Our main microRNA research effort is based in our Singapore lab, where we are focused on discovering new miRNA drugs for cancer and blood diseases," said B. Lynne Parshall, Isis' Executive Vice President and Chief Financial Officer of Isis Pharmaceuticals. "Our business strategy has been to participate in all areas of RNA-based drug discovery directly and through collaborations with outstanding companies like Anylam. Through this alliance, we benefit from Anylam's high quality focused research efforts on the RNAi mechanism and participate fully in the potential upside of this particular RNA-based mechanism."

ABOUT microRNAS

microRNAs (miRNAs) are naturally-occurring endogenous RNAs, about 21-24 nucleotides in length, that play important biological roles by inhibiting translation of messenger RNAs (mRNAs). Although microRNAs were only recently discovered, they have been shown in a variety of organisms to be one of the more abundant classes of RNA molecules. Because they appear to influence the output of many important protein-coding genes, microRNAs have strong potential for use in treating a variety of human diseases.

ABOUT ALNYLAM PHARMACEUTICALS, INC.

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 oncologic, metabolic, and autoimmune diseases. The company's global headquarters are in Cambridge, Massachusetts. For additional information, please visit <http://www.alnylam.com>.

ABOUT ISIS PHARMACEUTICALS, INC.

Isis Pharmaceuticals, Inc. is exploiting its expertise in RNA to discover and develop novel human therapeutic drugs for its pipeline and for its partners. The company has successfully commercialized the world's first antisense drug and has 12 antisense products in development to treat metabolic, cardiovascular, inflammatory, and viral diseases, and cancer. Through its Ibis Therapeutics® program, Isis is developing a biosensor to identify infectious organisms, and is discovering small molecule drugs that bind to RNA. As an innovator in RNA-based drug discovery and development, Isis is the owner or exclusive licensee of more than 1,400 issued patents worldwide. Additional information about Isis is available at <http://www.isispharm.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 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.

ISIS FORWARD-LOOKING STATEMENT

This press release contains forward-looking statements concerning the discovery, development and therapeutic potential of RNA-based technology and drugs, the potential success of Isis' collaboration with Alnylam and the potential of the company's intellectual property position. Any statement describing our goals, expectations, intentions or beliefs is a forward-looking statement and should be considered an at-risk statement, including those statements that are described as Isis' clinical goals. Such statements are subject to certain risks and uncertainties, particularly those inherent in the process of developing technology and systems used to identify infectious agents, in discovering and commercializing drugs that are safe and effective for use as human therapeutics, and in the endeavor of building a business around such products and services. Actual results could differ materially from those discussed in this press release. As a result, you are cautioned not to rely on these forward-looking statements. These and other risks concerning Isis' research and development programs are described in additional detail in Isis' Annual Report on Form 10-K for the year ended December 31, 2003, and quarterly report on Form 10-Q for the quarter ended June 30, 2004, which are on file with the U.S. Securities and Exchange Commission. Copies of these and other documents are available from the company.

Ibis Therapeutics® is a registered trademark of Isis Pharmaceuticals, Inc.

SOURCE Alnylam Pharmaceuticals, Inc.

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