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Alnylam Grants GeneDesign License to Kreutzer-Limmer Patents for the RNA Interference (RNAi) Research Products Market

CAMBRIDGE, Mass. and OSAKA, Japan – October 3, 2007 – Alnylam Pharmaceuticals, Inc. (Nasdaq: ALNY), a leading RNAi therapeutics company, and GeneDesign, Inc., announced today that Alnylam has granted GeneDesign a non-exclusive license to provide RNAi research products and services under the Kreutzer-Limmer patent family. This patent family, owned exclusively by Alnylam, covers small interfering RNAs (siRNAs) and their use to mediate RNAi in mammalian cells.

“This license agreement with GeneDesign, one of the leading suppliers of siRNAs in Japan, continues to underscore the value of the Kreutzer-Limmer patent family as a critical component of fundamental intellectual property in the field of RNAi,” said Jason Rhodes, Vice President, Business Development at Alnylam. “Alnylam continues to leverage its leading intellectual property estate through relationships worldwide that we expect will create value today and in the future. With approximately 15 licenses granted to research product suppliers, including now three in Asian markets, we believe that the vast majority of industrial sales of siRNAs for research purposes globally are currently being made under access to Alnylam’s intellectual property.”

“Obtaining a license to the Kreutzer-Limmer patent estate allows us to augment our RNAi products, thereby strengthening our position in the life sciences marketplace in Asia,” said Kazuhiko Yuyama, President of GeneDesign. “This agreement with Alnylam, a leader in the field of RNAi, reinforces our ability to become a leading supplier of innovative reagent products to the pharmaceutical and research community.”

Alnylam’s intellectual property estate includes certain fundamental patents and patent applications, including the Kreutzer-Limmer I and II patents, which claim the broad structural and functional properties of synthetic RNAi products.

About RNA Interference (RNAi)

RNAi is a revolution in biology, representing a breakthrough in understanding how genes are turned on and off in cells, and a completely new approach to drug discovery and development. Its discovery has been heralded as “a major scientific breakthrough that happens once every decade or so,” and represents one of the most promising and rapidly advancing frontiers in biology and drug discovery today, and was awarded the 2006 Nobel Prize for Physiology or Medicine. RNAi is a natural process of gene silencing that occurs in organisms ranging from

plants to mammals. By harnessing the natural biological process of RNAi occurring in our cells, the creation of a major new class of medicines, known as RNAi therapeutics, is on the horizon. RNAi therapeutics target the cause of diseases by potently silencing specific messenger RNAs (mRNAs), thereby preventing disease-causing proteins from being made. RNAi therapeutics have the potential to treat disease and help patients in a fundamentally new way.

About Alnylam Pharmaceuticals

Alnylam is a biopharmaceutical company developing novel therapeutics based on RNA interference, or RNAi. The company is applying its therapeutic expertise in RNAi to address significant medical needs, many of which cannot effectively be addressed with small molecules or antibodies, the current major classes of drugs. Alnylam is leading the translation of RNAi as a new class of innovative medicines with peer-reviewed research efforts published in the world's top scientific journals including *Nature*, *Nature Medicine*, and *Cell*. The company is leveraging these capabilities to build a broad pipeline of RNAi therapeutics; its most advanced program is in Phase II human clinical trials for the treatment of respiratory syncytial virus (RSV) infection. In addition, the company is developing RNAi therapeutics for the treatment of influenza, hypercholesterolemia, and liver cancers, amongst other diseases. The company's leadership position in fundamental patents, technology, and know-how relating to RNAi has enabled it to form major alliances with leading companies including Medtronic, Novartis, Biogen Idec, and Roche. The company, founded in 2002, maintains headquarters in Cambridge, Massachusetts. For more information, visit www.alnylam.com.

About GeneDesign

GeneDesign, Inc. is a contract oligonucleotides manufacturer with broad capacity for DNA/RNA/LNA oligonucleotide synthesis from micro mole to gram scale. GeneDesign provides support for molecular biology, as well as therapeutic and diagnostic applications using all types of oligonucleotides. GeneDesign has an oligonucleotide manufacturing system using a sterilized lyophilized process that is suitable for *in vivo* experiments including target validation with siRNAs. To create novel oligonucleotides, multiple R&D pipelines have been developed including a ribbon-type decoy nucleic acid, synthesis method development and application of bridged nucleic acid (BNA) oligonucleotides, and a manufacturing system for oligonucleotides under the control of GMP. For more information, visit www.genedesign.co.jp and contact dna@genedesign.co.jp.

Alnylam Forward-Looking Statements

Various statements in this release concerning Alnylam's future expectations, plans, and prospects, including its views with respect to the importance of its intellectual property rights, 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: Alnylam's approach to discover and develop novel drugs, which is unproven and may never lead to marketable products; Alnylam's ability to fund and the results of further pre-clinical and clinical trials; obtaining, maintaining and protecting intellectual property utilized by its products; Alnylam's ability to enforce its patents against infringers and to defend its patent portfolio against challenges from third parties; Alnylam's ability to obtain additional funding to support its business activities; Alnylam's dependence on third parties for

development, manufacture, marketing, sales, and distribution of products; the successful development of Alnylam's product candidates, all of which are in early stages of development; obtaining regulatory approval for products; competition from others using technology similar to Alnylam's and others developing products for similar uses; Alnylam's dependence on collaborators; and its short operating history; as well as those risks more fully discussed in the "Risk Factors" section of our most recent report on Form 10-Q on file with the Securities and Exchange Commission. In addition, any forward-looking statements represent Alnylam's views only as of today and should not be relied upon as representing its views as of any subsequent date. Alnylam does not assume any obligation to update any forward-looking statements.