FOR IMMEDIATE RELEASE

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Idera Pharmaceuticals Presents Preclinical Data in Lupus Disease Models on Use of Novel Class of Antagonists for Toll-Like Receptors

Cambridge, MA, February 12, 2007 – Idera Pharmaceuticals Inc. (AMEX: IDP), today announced the presentation of preclinical data using antagonists of Toll-like receptor (TLR) 7 and 9 in mouse models of lupus disease. The presentation entitled "Novel Class of DNA-Based Compounds Act as Antagonists for TLR7 and 9: *In Vitro* and *In Vivo* Studies in MRL-lpr and NZBW/F1 Mouse Models" (Abstract #473) was made at the Keystone Symposia's Biology of B Cells in Health and Disease being held in Banff, Alberta, Canada, February 6-12, 2006.

"The antagonist candidates studied in mouse lupus models have been identified through Idera's chemistry-based approach for generating DNA- and RNA-based novel chemical entities for TLRs," said Sudhir Agrawal, D. Phil., Chief Executive Officer and Chief Scientific Officer of Idera. "Based on our results in the mouse lupus models, we plan to expand evaluations of our antagonist candidates into additional preclinical models of autoimmune diseases."

The two strains of mice used in the study, MRL-lpr and NZB W/F1, are genetically predisposed to development of symptoms of lupus disease. Data from evaluation of antagonist candidates in the two mouse models showed improvement in a number of lupus disease parameters including a decrease in anti-DNA antibodies and histology changes in the kidneys of antagonist-treated mice. In addition, there was a decrease in skin rash in the MRL-lpr model. Additional preclinical data for these antagonists was presented in November 2006 at the American College of Rheumatology Basic Research Conference.

About Idera Pharmaceuticals, Inc.
Idera Pharmaceuticals is a drug discovery and development company that is developing drug candidates to treat cancer and infectious, respiratory, and autoimmune diseases, and for use as vaccine adjuvants. Idera's proprietary drug candidates are designed to modulate TLRs, the body's first line of immune defense. Idera's pioneering DNA chemistry expertise enables it to identify drug

candidates for internal development and creates opportunities for multiple collaborative alliances. Idera's most advanced clinical candidate, IMO-2055, is an agonist of TLR9 and is currently in a Phase 2 trial in oncology and in a Phase 1/2 chemotherapy combination trial in oncology. Idera has selected a second TLR9 agonist, IMO-2125, as a lead candidate for treating infectious diseases. Idera is collaborating with Merck & Co. for the use of Idera's TLR7, 8 and 9 agonists in combination with Merck's therapeutic and prophylactic vaccines in the areas of oncology, infectious diseases, and Alzheimer's disease. Idera is also collaborating with Novartis International Pharmaceuticals, Ltd. for the discovery, development, and commercialization of TLR9 agonists for the treatment of asthma and allergy indications. For more information, visit www.iderapharma.com.

Forward Looking Statements

This press release contains forward-looking statements concerning Idera Pharmaceuticals, Inc. that involve a number of risks and uncertainties. For this purpose, any statements contained herein that are not statements of historical fact may be deemed to be forward-looking statements. Without limiting the foregoing, the words "believes," "anticipates," "plans," "expects," "estimates," "intends," "should," "could," "will," "may," and similar expressions are intended to identify forward-looking statements. There are a number of important factors that could cause Idera's actual results to differ materially from those indicated by such forward-looking statements, including whether products based on Idera's technology will advance into or through the clinical trial process on a timely basis or at all and receive approval from the United States Food and Drug Administration or equivalent foreign regulatory agencies; whether the Company will complete enrollment of clinical trials in the time expected; whether, if the Company's products receive approval, they will be successfully distributed and marketed; whether the Company's collaborations will result in successful product development and if the Company receives payments thereafter; whether the results of preclinical studies such as the results referred to above will be indicative of results that may be obtained in clinical trials; whether the patents and patent applications owned or licensed by Idera will protect the Company's technology and prevent others from infringing it; whether Idera's cash resources will be sufficient to fund product development and clinical trials; and such other important factors as are set forth under the caption "Risk Factors" in Idera's Quarterly Report on Form 10-Q filed on November 13, 2006, which important factors are incorporated herein by reference. Idera disclaims any intention or obligation to update any forward-looking statements.

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