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**Idera Pharmaceuticals Announces Chief Financial Officer to Leave
Company Effective July 31, 2007**

Cambridge, MA, May 21, 2007 – Idera Pharmaceuticals (AMEX: IDP) today announced that Robert Andersen, the Company's Chief Financial Officer and Vice President of Operations, will leave the Company on July 31, 2007 to pursue personal interests after 10 years of service with the Company. Mr. Andersen will remain with the Company through July 31, 2007 to ensure a smooth and orderly transition for financial operations. Idera has initiated a search for his successor.

"Bob has provided Idera with a decade of dedicated service during his tenure and has been an integral member of the management team as the Company has evolved into a leader in drug discovery and development targeting toll-like receptors," commented Sudhir Agrawal, D.Phil., Chief Executive Officer and Chief Scientific Officer of Idera. "Everyone at Idera and members of the Board of Directors of Idera thank Bob deeply for his contributions and wish him the best in his next endeavor."

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 Novartis International Pharmaceutical, Ltd. for the discovery, development, and commercialization of TLR9 agonists for the treatment of asthma and allergy indications. Idera is also collaborating with Merck & Co., Inc.

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. 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, if the Company's products receive approval, they will be successfully distributed and marketed; whether the Company's collaborations with Novartis and Merck will be successful; 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 May 14, 2007, which important factors are incorporated herein by reference. Idera disclaims any intention or obligation to update any forward-looking statements.

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