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**Idera Pharmaceuticals Announces the Issuance of US Patent Claiming
Compounds that Target Toll-like Receptor 9**

Cambridge MA, September 13, 2006 – Idera Pharmaceuticals, Inc. (AMEX: IDP) today announced the issuance of US patent 7,105,495 (the '495 patent) for immune modulatory oligonucleotides (IMO™) that target Toll-like Receptor 9 (TLRs). The claims of this patent cover methods for modulating the immunostimulatory effect of novel dinucleotide motifs and CpG motifs by introducing modifications in the flanking sequence. These modifications include changes to the backbone and the nucleosides. Similar claims have been granted in Europe (EU 1,278,761) and Australia (AU 2001257366).

“Idera’s TLR discovery and development programs are based on our ability to generate a broad range of novel TLR-targeted oligonucleotides, each with specific immune modulating characteristics”, stated Sudhir Agrawal, D. Phil., Idera’s Chief Executive Officer and Chief Scientific Officer. “The '495 patent further strengthens the intellectual property portfolio that protects our TLR-targeted therapeutic technology.”

Idera presently has over 150 patents and patent applications world-wide covering agonists of TLR9, TLR8, and TLR7 and antagonists of TLR9. Idera’s entire portfolio of DNA and RNA-based compounds has been designed through in-house structure-activity relationship studies.

About Idera Pharmaceuticals, Inc.

Idera Pharmaceuticals is a drug discovery and development company with a pipeline of drug candidates to treat cancer, and infectious, respiratory, and autoimmune diseases. 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 also is collaborating with Novartis for the discovery, optimization, development, and commercialization of additional TLR9 agonist candidates for asthma and allergy. 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 results of preclinical studies 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 August 14, 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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