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Idera to Draw Down \$4 Million under Existing Equity Vehicle

-Stock to be Sold at \$5.12 Per Share-

Cambridge MA, October 24, 2006 – Idera Pharmaceuticals, Inc. (AMEX: IDP) today announced that on November 6, 2006 it will sell 781,250 shares of its common stock at a price of \$5.12 for total proceeds of \$4 million, under the terms of the \$9.75 million equity financing vehicle that it entered into with Biotech Shares Ltd. on March 27, 2006. Under the terms of its agreement with Biotech Shares Ltd., the Company provided notice of the drawdown on October 20, 2006. Biotech Shares' commitment to purchase the shares is supported by a letter of credit confirmed by JPMorgan Chase Bank, NA. The Company has the right to draw down from Biotech Shares an additional \$2.25 million through the end of 2006.

The Company plans to use the proceeds from the drawdown to advance its pipeline of drug candidates targeted to Toll-like receptors (TLRs). Idera's pipeline includes development stage programs with TLR9 agonists (IMO-2055 in Phase 2 clinical trials for oncology and in a Phase 1/2 chemotherapy combination trial in oncology, and IMO-2125 in pre-IND testing for infectious disease) and discovery stage programs with agonists of TLR7 and TLR8 and with antagonists to TLR9.

About Idera Pharmaceuticals, Inc.

Idera Pharmaceuticals, Inc. 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 targeted to Toll like Receptors (TLRs), the body's first line of immune defense. Idera's pioneering DNA chemistry expertise enables it to identify drug candidates for internal development as well as to create opportunities for multiple collaborative alliances. 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 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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