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Idera Pharmaceuticals Reports Financial Results for the Three Months Ended March 31, 2007

– Company Outlines Expanded Oncology Clinical Development Strategy for IMO-2055 –

Cambridge, MA, May 15, 2007 – Idera Pharmaceuticals (AMEX: IDP) today announced financial results for the quarter ended March 31, 2007 and provided an outline of its expanded oncology clinical trials program for its lead candidate, IMO-2055.

"Idera completed the first quarter in a stronger financial position to expand its Toll-like receptor (TLR) targeted drug discovery and development programs," stated Sudhir Agrawal, D.Phil., Chief Executive and Chief Scientific Officer of Idera. "As part of our oncology clinical development strategy, we plan to initiate additional studies with IMO-2055 in combination with approved, targeted anti-cancer agents. We have developed this strategy in consultation with members of our Oncology Clinical Advisory Board. In addition, we recently submitted an Investigational New Drug (IND) application to the U.S. Food and Drug Administration (FDA) for our second lead product candidate, IMO-2125, and plan to commence a phase 1 trial of IMO-2125 in patients with hepatitis C in the second half of 2007."

Robert W. Karr, M.D., President of Idera, commented, "Combinations of drugs with different mechanisms of action have often shown promise in the treatment of cancer. Our preclinical studies demonstrate increased anti-tumor activity when IMO-2055 is combined with approved targeted agents such as Avastin®, Erbitux® and Tarceva® compared to the activity of any of these agents alone. We intend to expand our oncology clinical development program based on these encouraging data and consistent with our strategy for a combination therapy approach. The recent addition of Dr. Alice Bexon as Vice President of Clinical Development increases our internal human resources to execute our clinical development strategies."

Update on Clinical Programs

Oncology program: IMO-2055

- Idera intends to initiate clinical trials to investigate IMO-2055 in combination with Tarceva®, and in triple combination with Tarceva® and Avastin®, in patients with non-small cell lung cancer as second-line therapy. The Company expects to initiate a phase 1b trial to assess the safety of the combinations in the third quarter of this year and, subject to an analysis of the results of the phase 1b trial, to conduct a four-arm, randomized, placebo controlled phase 2 trial of the combinations. The Company is currently discussing the protocols for both trials with the FDA.
- Idera also plans to initiate clinical trials to investigate IMO-2055 in combination with Erbitux® and Camptosar® in patients with colorectal cancer as second-line therapy. The Company expects to initiate a phase 1b trial to assess the safety of this combination in the fourth quarter of this year and, subject to an analysis of the results of the phase 1b trial, to conduct a randomized, placebo controlled phase 2 trial of the combination.
- Idera is currently conducting a phase 1/2 clinical trial of IMO-2055 in combination with the chemotherapy agents Gemzar® and carboplatin in patients with refractory solid tumors. The Company expects to complete phase 1 enrollment of this trial in the second quarter and report the initial results at an appropriate scientific meeting by the end of 2007.
- In Idera's on-going phase 2, Stage A, clinical evaluation of IMO-2055 monotherapy in patients with renal cell carcinoma (RCC), the Company has completed enrollment of the planned 46 treatment-naïve patients and has enrolled 44 of the intended 46 second-line patients. Idera plans to close enrollment of this trial on June 29, 2007 if the remaining 2 patients are not recruited by that time. When final data are available, the Company will report the results at an appropriate scientific meeting and decide on the next steps for evaluation of IMO-2055 in RCC.

Hepatitis C program: IMO-2125

- Idera recently submitted an IND to the FDA for IMO-2125, a second TLR9 agonist. The Company expects to initiate a phase 1 trial of IMO-2125 in patients with hepatitis C during the second half of 2007.
- Idera has established a Hepatitis C Clinical Advisory Board which has been advising the Company on the development of IMO-2125 for hepatitis C. Members of the board are experienced hepatitis C clinical investigators and include:
  - John McHutchison, M.D., *Chairman*
    Dr. McHutchison is Professor of Medicine at Duke University Medical Center and Associate Director of GI/Hepatology Research at Duke Clinical Research Institute, Duke University School of Medicine in Durham, NC.
  - Michael P. Manns, M.D.

Dr. Mann is Professor and Chairman at the Department of Gastroenterology, Hepatology and Endocrinology at Hannover Medical School in Hannover, Germany.

- o Stefan Zeuzem, M.D.
  Dr. Zeuzem is Professor of Medicine I and Chief of the Department of Medicine at J. W. Goethe University Hospital in Frankfurt, Germany.
- o Nezam Afdhal, M.D.
  Dr. Afdhal is Associate Professor of Medicine at Harvard Medical School and Chief of Hepatology and Director of the Liver Center at Beth Israel Deaconess Medical Center in Boston, MA.

First Quarter Results

The Company reported a net loss of $2.5 million or $0.12 per share for the three months ended March 31, 2007, compared to a net loss of $3.7 million, or $0.26 per share for the same period in 2006.

Total revenues for the three months ended March 31, 2007 were $1.8 million compared to $0.6 million for the same period in 2006. The increase in revenue is primarily due to license fees recognized under the Company's collaboration agreement with Merck & Co., Inc. (Merck) signed in December 2006.

Research and Development expenses for the three months ended March 31, 2007 totaled $2.8 million compared to $3.0 million for the same period in 2006. The decrease in R&D expense is primarily due to decreased clinical costs in the 2006 period associated with the phase 2 trial of IMO-2055 in RCC.

General and Administrative expenses for the three months ended March 31, 2007 were $2.0 million compared to $1.3 million for the same period in 2006. The increase in G&A is primarily attributable to increased professional fees associated with market analysis of therapeutic areas and legal services. The increase also reflects higher payroll expenses associated with the addition of employees and higher compensation expense related to employee and consultant stock options.

Cash, cash equivalents and short-term investments on March 31, 2007 totaled approximately $33.5 million compared to $38.2 million at December 31, 2006.

Recent Accomplishments

- In April 2007, two preclinical presentations were made at the Annual Meeting of the American Association for Cancer Research. The first presentation was made by a third party contractor of the Company reporting on a preclinical study it conducted in which Idera's IMO-2055 in combination with Nexavar®, a drug approved for RCC, showed enhanced antitumor activity compared to either agent alone in a mouse xenograft model. The second presentation was made by Idera reporting on a preclinical study it conducted in which an analog

of IMO-2055 optimized for mice was administered by the intranasal route and showed potent antitumor activity in mouse models of lung metastases of colon carcinoma and melanoma.

- In March 2007, Novartis extended the research program under the Company's existing collaboration agreement with Novartis for an additional year until May 2008. In connection with this extension, Novartis made a $1 million milestone payment to Idera in May 2007. The collaboration between Idera and Novartis involves the discovery, development, and commercialization of TLR9 agonists for the treatment of asthma and allergy indications.

- In February 2007, the Company presented preclinical data on novel DNA-based TLR antagonists at a Keystone Symposium. In murine models of lupus, TLR antagonist-treated mice showed improvement in several disease parameters.

- In February 2007, the Company announced the appointment of Dr. Alice Bexon as Vice President of Clinical Development.

- In February 2007, the Company converted its 4% Convertible Subordinated notes due 2008 in the aggregate principal amount of $5,032,750 into shares of the Company's common stock.

- In February 2007, the United States Patent and Trademark Office issued the Company US patent 7,176,296 claiming compounds comprising a synthetic immunostimulatory motif and an immunomodulatory moiety.

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 the Company will complete enrollment of clinical trials or announce trial results 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 Company's collaborations with Novartis and Merck will be successful; 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 May 14, 2007, which important factors are incorporated herein by reference. Idera disclaims any intention or obligation to update any forward-looking statements.

Avastin® is a registered trademark of Genentech, Inc. Erbitux® is a registered trademark of ImClone Systems Incorporated. Tarceva® is a registered trademark of OSI Pharmaceuticals, Inc. Camptosar® is a registered trademark of Pfizer. Gemzar® is a registered trademark of Eli Lilly and Company. Nexavar® is a registered trademark of Bayer Pharmaceuticals Corporation.

Idera Pharmaceuticals, Inc.
Condensed Statements of Operations
(Unaudited)
(In thousands, except per share data)

	Three Months Ended March 31,	
	2007	2006
Revenues	$ 1,829	$ 636
Operating Expenses		
Research & Development	2,819	2,985
General & Administrative	1,953	1,268
Total Operating Expenses	4,772	4,253
Loss from Operations	(2,943)	(3,617)
Other, net	415	(33)
Net Loss	$ (2,528)	$ (3,650)
Basic and Diluted Net Loss Per Common Share	$ (0.12)	$ (0.26)
Shares Used In Computing Basic and Diluted Net Loss Per Common Share	20,787	14,154

Idera Pharmaceuticals, Inc.
Balance Sheet Data
(In thousands)

	March 31, 2007 (unaudited)	December 31, 2006
Cash, Cash Equivalents And Investments	$ 33,508	$ 38,187
Receivables & Other Assets	4,090	2,354
Total Assets	$ 37,598	$ 40,541
Accounts Payable and Accrued Liabilities	$ 1,940	$ 2,029
Deferred Revenue	20,549	21,242
Notes Payable	-	5,033
Total Stockholders' Equity	15,109	12,237
Total Liabilities & Stockholders' Equity	$ 37,598	$ 40,541

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