FOR IMMEDIATE RELEASE

Idenix Pharmaceuticals Contact:
Teri Dahlman: 617-995-9905

IDENIX PHARMACEUTICALS REPORTS FAVORABLE PHARMACOKINETIC DATA FOR IDX320, A POTENT, MULTI-GENOTYPIC PROTEASE INHIBITOR FOR THE TREATMENT OF HEPATITIS C

- *IDX320 pharmacokinetic data in healthy volunteers suggest potential for once-daily dosing in HCV-infected patients*
- *Triple combinations of direct-acting antiviral agents demonstrate strong in vitro synergy against hepatitis C virus (HCV)*
- *Data were presented in three posters at the 45th Annual Meeting of the European Association for the Study of the Liver (EASL)*

Cambridge, MA, April 16, 2010 – Idenix Pharmaceuticals, Inc. (NASDAQ: IDIX), a biopharmaceutical company engaged in the discovery and development of drugs for the treatment of human viral diseases, today reported promising *in vitro* data for IDX320, an HCV protease inhibitor, demonstrating potent and selective antiviral activity in multiple genotypes, or strains, of the virus. The favorable pharmacokinetic profile defined in preclinical studies was confirmed by interim Phase I clinical data in healthy volunteers. Additional data presented demonstrated that a combination of three Idenix drug candidates, including IDX320, with different mechanisms of action produced strong synergy *in vitro.* These data support the evaluation of direct-acting antiviral (DAA) combination regimens for the treatment of HCV.

"We are excited about the preclinical and first-in-man data presented today from the IDX320 program. With the *in vitro* potency and favorable pharmacokinetic profile seen to date combined with the potential for once-daily dosing and multi-genotypic coverage, we believe IDX320 could offer improvements over other protease inhibitors currently in development," said David Standring, Ph.D., Idenix's executive vice president, biology. "The Phase I single and multiple ascending dose clinical study in healthy volunteers is now complete, and we look forward to advancing IDX320 into a three-day proof-of-concept study expected to begin in the second quarter."

"The *in vitro* combination data presented today continue to support our belief that the future of HCV treatment will be a combination of direct-acting antivirals from different drug classes. We are pursuing a drug development strategy to achieve that goal," said Jean-Pierre Sommadossi, Ph.D., chief executive officer of Idenix.

IDX320 is a potent inhibitor of NS3/4A proteases from genotypes 1a, 1b, 2a and 4a (IC_{50} values from 0.8 to 1.9 nM), as well as from genotype 3a (IC_{50}=23 nM). IDX320 did not inhibit nine tested cellular proteases (IC_{50} > 10 μM) *in vitro,* suggesting high selectivity. IDX320 bound tightly to the HCV protease enzyme with a long dissociation half-life (> 9 hours). The signature mutation observed *in vitro* was D168V, consistent with other macrocyclic inhibitors. This mutation had reduced replication fitness and was susceptible to treatment with interferon as well as other classes of DAAs. Additionally, IDX320 retained activity against mutations that produce resistance to other protease inhibitors in clinical development. *(Lallos, et al, "In Vitro Antiviral Activity of IDX320, a Novel and Potent Macrocyclic HCV Protease Inhibitor", Poster #768.)*

After single 2 mg/kg oral doses of IDX320 in two animal species, favorable bioavailability and a long plasma half-life were observed, with substantial plasma concentrations 24 hours post dose. These preclinical data were confirmed in orally-dosed healthy volunteers (n=6) receiving a single 200 mg

tablet. Further, no significant *in vitro* inhibition of human drug metabolizing enzymes, CYP450s and UGT1A1, by IDX320 suggests low potential for drug-drug interactions in patients. (Good, et al, *"Preclinical Pharmacokinetic Profile of IDX320, a Novel and Potent HCV Protease Inhibitor", Poster #750).*

Double and triple combination *in vitro* studies of Idenix's HCV direct-acting antiviral drug candidates from different HCV drug classes, including IDX184 (a nucleotide inhibitor), IDX320 (a protease inhibitor), IDX375 (a non-nucleoside inhibitor) and a prototype Idenix NS5A inhibitor, were reported. Data demonstrated that double combinations (IDX320 with IDX184, IDX375 or NS5A inhibitor) resulted in additive to mildly synergistic effects after 3 days of treatment *in vitro*. Furthermore, triple combinations, especially those including agents from three different HCV drug classes (IDX184/IDX320/IDX375 or IDX184/IDX320/NS5A inhibitor), demonstrated the strongest synergy *in vitro*. Similar results were observed over 14-days of treatment with no evidence of viral breakthrough or cellular cytotoxicity. (*La Colla, et al, "A Triple Combination of Direct-Acting Antiviral Agents Demonstrates Robust Anti-HCV Activity In Vitro", Poster #769.)*

About HCV

Hepatitis C virus is a common blood-borne pathogen infecting three to four million people worldwide annually. Currently, an estimated 170 million people are infected worldwide, representing a nearly 5-fold greater prevalence than human immunodeficiency virus.[1]

About Idenix

Idenix Pharmaceuticals, Inc., headquartered in Cambridge, Massachusetts, is a biopharmaceutical company engaged in the discovery and development of drugs for the treatment of human viral diseases. Idenix's current focus is on the treatment of infections caused by hepatitis C virus. For further information about Idenix, please refer to www.idenix.com.

Forward-looking Statements

This press release contains "forward-looking statements" for purposes of the safe harbor provisions of The Private Securities Litigation Reform Act of 1995, including but not limited to the statements regarding the company's future business and financial performance. For this purpose, any statements contained herein that are not statements of historical fact may be deemed forward-looking statements. Without limiting the foregoing, the words "expect," "plans," "anticipates," "will," "expects," "goal," "estimates," "projects," "would," "could," "targets," and similar expressions are also intended to identify forward-looking statements, as are expressed or implied statements with respect to the company's clinical development programs or commercialization activities in hepatitis C, or any potential pipeline candidates, including any expressed or implied statements regarding the efficacy and safety of IDX320, the likelihood and success of any future clinical trials involving IDX320 or successful development of novel combinations of direct-acting antivirals for the treatment of hepatitis C. Actual results may differ materially from those indicated by such forward-looking statements as a result of risks and uncertainties, including but not limited to the following: there can be no guarantees that the company will advance any clinical product candidate or other component of its potential pipeline to the clinic, to the regulatory process or to commercialization; management's expectations could be affected by unexpected regulatory actions or delays; uncertainties relating to, or unsuccessful results of, clinical trials, including additional data relating to the ongoing clinical trials evaluating its product candidates; the company's ability to obtain additional funding required to conduct its research, development and commercialization activities; the company's dependence on its collaborations with Novartis Pharma AG and GlaxoSmithKline; changes in the company's business plan or objectives; the ability of the company to attract and retain qualified personnel; competition in general; and the company's ability to obtain, maintain and enforce patent and other intellectual property protection for its product candidates and its discoveries. Such forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause actual results to be materially different from any future results, performance or achievements expressed or implied by such statements. These and other risks which may impact management's expectations are described in greater detail under the heading "Risk Factors" in the company's annual

report on Form 10-K for the year ended December 31, 2009, as filed with the Securities and Exchange Commission (SEC) and in any subsequent periodic or current report that the company files with the SEC.

All forward-looking statements reflect the company's estimates only as of the date of this release (unless another date is indicated) and should not be relied upon as reflecting the company's views, expectations or beliefs at any date subsequent to the date of this release. While Idenix may elect to update these forward-looking statements at some point in the future, it specifically disclaims any obligation to do so, even if the company's estimates change.

1. Lavanchy (2009) Liver International. 29(s1):74-81.

###