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IDENIX PHARMACEUTICALS REPORTS DATA FROM THREE HEPATITIS C DEVELOPMENT PROGRAMS AT THE 44th ANNUAL MEETING OF THE EUROPEAN ASSOCIATION FOR THE STUDY OF THE LIVER

Cambridge, MA, April 23, 2009 – 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 data from its three hepatitis C development programs being presented this week at the 44th Annual Meeting of the European Association for the Study of the Liver (EASL) in Copenhagen, Denmark. These presentations include data on IDX184, a once-daily, oral nucleotide polymerase inhibitor prodrug currently being evaluated in a phase Ib/IIa clinical trial, and data on two clinical candidates: IDX375, a non-nucleoside polymerase inhibitor and IDX316, a protease inhibitor, both currently undergoing IND-enabling preclinical studies.

"Idenix's primary goal is to discover and develop the leading HCV antiviral platform," said Jean-Pierre Sommadossi, Ph.D., chief executive officer of Idenix. "With drug candidates in each of the three major classes of direct-acting HCV antivirals in our pipeline, we believe that we are well positioned to design an optimal combination therapy."

IDX184 Nucleotide Prodrug Polymerase Inhibitor

IDX184 is a liver-targeted, oral nucleotide prodrug designed to enhance the formation of its active triphosphate in the liver, while minimizing systemic exposure to IDX184 and the resulting nucleoside metabolite (NM). IDX184 is fully active against HCV genotypes 1, 2, 3 and 4 and, preclinically, has demonstrated increased antiviral activity when tested in combination with HCV protease inhibitors, non-nucleoside polymerase inhibitors, interferon or ribavirin.

IDX184 has been evaluated in a seven-day study in HCV-infected chimpanzees, in which six genotype-1 infected chimpanzees received 10 mg/kg of IDX184 daily for four days. Data presented at EASL confirm a pharmacokinetic/pharmacodynamic (PK/PD) relationship between nucleoside metabolite concentrations in serum and viral load reductions in this study. Trough serum nucleoside metabolite levels were low, ranging from 2-8 ng/mL, and there was a direct correlation between levels of NM and HCV RNA, with greater viral load reductions observed as the NM levels increased. Specifically, serum trough NM levels of greater than 2 ng/mL were associated with HCV RNA reductions of 1 $\log_{10}$ or greater.

An additional presentation on IDX184 detailed results of the double-blind, placebo-controlled, single dose-escalation study that evaluated the safety and pharmacokinetics of IDX184 in healthy volunteers. Eight subjects (randomized 6:2, active:placebo) in each dosing cohort were administered a single dose of IDX184, ranging from 5 mg to 100 mg, or placebo. IDX184 was safe and well-tolerated in this study; the most common adverse event reported was dizziness and it was more frequently reported in subjects receiving placebo. In this study, the pharmacokinetics of IDX184 and the nucleoside metabolite were consistent with a liver-targeted drug. Systemic exposures and plasma half-life of the nucleoside metabolite were similar to that of its active triphosphate measured *in vitro* in human hepatocytes. In this healthy volunteer study, IDX184 doses of 50 mg/day and higher led to serum NM levels greater than 2 ng/mL 24 hours post-dose.

A phase I/II proof-of-concept clinical trial of IDX184 in treatment-naïve HCV genotype-1 patients is ongoing.

IDX316 Protease Inhibitor

IDX316 exhibited potent activity against HCV NS3/4A proteases from multiple genotypes (1a, 1b, 2a and 4a) and in HCV replicons. Long-term *in vitro* treatment (14 days) with IDX316 produced high levels of suppression that was maintained over the treatment period without evidence of rebound or cytotoxicity. IDX316 also demonstrated high selectivity, with tight binding to the HCV protease and no activity observed against eight human cellular proteases. IDX316 retained activity against common mutations in NS3 and exhibited enhanced activity when combined with standard-of-care agents or other Idenix compounds in development (IDX184 and IDX375). Favorable PK profiles in rodent and non-human primate species suggest the potential for once- or twice-daily dosing in humans (half-life of 4.0-5.2 h; bioavailability of ~20%).

IDX375 Non-Nucleoside Polymerase Inhibitor

The preclinical pharmacokinetic and toxicology profile of IDX375 was also presented at EASL. Data support once- or twice-daily dosing in HCV-infected patients based on favorable bioavailability and plasma drug exposure levels in animal studies. IDX375 showed limited metabolism and no cytotoxicity when incubated with mouse, rat, monkey or human hepatocytes. IDX375 demonstrated no adverse effects in monkeys given daily oral doses of 10 or 100 mg/kg for 7 days.

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" within the meaning of The Private Securities Litigation Reform Act of 1995. Such forward-looking statements can be identified by the use of forward-looking terminology such as "may," "plans," "anticipates," "will," or similar expressions, or by express or implied statements with respect to the company's clinical development programs or commercialization activities in hepatitis C, or any potential pipeline candidate. 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. 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. In particular, 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 collaboration with Novartis Pharma AG and GlaxoSmithKline, respectively; 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. These and other risks which may impact management's expectations are described in greater detail under the caption "Risk Factors" in the company's annual report on Form 10-K for the year ended December 31, 2008 as filed with the Securities and Exchange Commission (SEC) and other filings that the company makes with the SEC.

All forward-looking statements reflect the company's expectations only as of the date of this release 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. Idenix anticipates that subsequent events and developments may cause these views, expectations and beliefs to change. However, while Idenix may elect to update these forward-looking statements at some point in the future, it specifically disclaims any obligation to do so.

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