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Peregrine Pharmaceuticals Reports Positive Phase Ib Results for its Targeted Immunotherapy Bavituximab in Chronic Hepatitis C Infection

- Appeared Generally Safe and Well Tolerated at All Doses Tested -

- Showed Signs of Dose Dependent Biologic Effects with 83% of Patients at the 3mg/kg Dose Showing Signs of Antiviral Activity -

- Positive Phase l Results Set the Stage for New Bavituximab HCV Therapy Trials Slated To Begin Later This Year -

TUSTIN, Calif., Feb. 14 /PRNewswire-FirstCall/ -- Peregrine Pharmaceuticals, Inc. (Nasdaq: PPHM), a biopharmaceutical company developing targeted therapeutics for the treatment of cancer and hepatitis C virus (HCV) infection, today reported preliminary top-line results from a Phase Ib study of its targeted immunotherapy bavituximab in patients with chronic HCV infection. The repeat dose, multi-center open label study was designed to assess the safety, distribution and pharmacokinetic properties of four ascending dose levels of bavituximab administered as twice-weekly monotherapy in HCV patients. The results indicate that Peregrine's novel immunotherapeutic drug was generally safe and well tolerated, with no dose limiting toxicities or serious adverse events reported. The preliminary results also indicate that bavituximab showed positive signs of dose dependent anti-viral activity.

Eliot W. Godofsky M.D., a principal investigator of the Phase Ib study and director of the University Hepatitis Center in Sarasota, Florida, noted these findings set the stage for testing bavituximab in combination with other antiviral therapies: "As a targeted immunotherapy, bavituximab represents an entirely new approach to treating chronic HCV infection. Current HCV immunotherapies, such as interferon, act by stimulating a general hyper-immune response, which can cause significant side effects in many patients. In contrast, bavituximab has the potential to specifically target HCV infected cells for destruction by the immune system. The key findings of this repeat dose trial confirm our findings from the Phase 1a study showing that bavituximab is generally safe and well tolerated in HCV patients, with good signs of anti-viral activity. Based on these positive results, we are looking forward to working with Peregrine to proceed to trials that will further assess bavituximab's potential for the treatment of chronic HCV infection."

In contrast to antiviral therapies, which attack hepatitis C viral particles, bavituximab primarily works by homing in on a specific molecular target that is expressed only on certain stressed cells, including both HCV viral particles and patient cells infected with HCV. These infected patient cells produce new viral particles that can cause the disease to reoccur. Bavituximab flags these infected cells for destruction by the immune system, enabling a highly targeted immune response. When used in combination with antiviral drugs that lower virus levels, bavituximab may have the potential to help permanently eradicate the HCV infection by eliminating the infected cells that fuel disease resurgence.

The Phase lb study results indicate that 83% of patients at the 3 milligram per kilogram (mg/kg) dose level showed at least a 75% (0.6 log) reduction or better in HCV RNA levels, with an average of an 84% (0.8 log) reduction for the entire cohort. In this cohort, 50% of the patients showed signs of greater antiviral activity, with an average HCV RNA load reduction of 1 log. Patients showing signs of antiviral activity typically achieved peak viral load reduction three to seven days after the initial dose. The signs of antiviral activity in this repeat dose study compare favorably with results previously reported for bavituximab administered as a single dose infusion, with a higher percentage of patients in the current study showing signs of antiviral activity with a similar safety profile. Based on these positive data, Peregrine plans to advance bavituximab into new HCV trials, including combination therapy and additional dosing studies shortly.

"These results are particularly significant since they represent an important milestone in Peregrine's efforts to develop targeted immunotherapeutics, which are already transforming therapy for diseases such as cancer, for life threatening viral infections including HCV," said Steven W. King, president and CEO of Peregrine. "We believe that our targeted immunotherapy agent bavituximab has the potential to change the way HCV infections are treated, and we are delighted with the promising safety results and positive signs of antiviral activity observed in this repeat dose study. These results and the pharmacokinetic data also generated by the study should be of great value as we finalize patient dosing schedules for our next series of HCV clinical trials."

Mr. King added, "There are currently many new approaches in development to treat chronic HCV infection that are aimed at directly inhibiting production of the virus. All of these agents are being tested in combination with various forms of interferon, which act by causing a general stimulation of the immune system, resulting in toxic effects for many patients. To achieve sustained antiviral responses with a regimen that is both effective and safe, we need new immunotherapy agents that can work with antiviral drugs to reduce or eliminate the need for these non-specific immunotherapies. We believe bavituximab could be just this sort of agent, targeting the immune system to act precisely where it is needed, with the promise of reducing or eliminating the need for general immune stimulators with their high potential for adverse effects."

In the Phase lb study, 24 patients were enrolled in four cohorts, with each cohort receiving four doses of bavituximab over a 10-day period. Patients received bavituximab at escalating dose levels of 0.3, 1, 3, or 6 mg/kg of body weight, and were followed for 12 weeks. All patients in the study suffered from chronic HCV infection based on their medical history and the presence of detectable serum HCV RNA. More than half of the study cohort had genotype 1 HCV. This study included treatment naive patients as well as partial responders and those who had either failed to respond to, or relapsed after, standard-of-care HCV treatment.

"Combination regimens are a mainstay of hepatitis C treatments, and as a clinician treating patients with chronic HCV infection, I am acutely aware of the need for new agents that could minimize the toxicities we currently see with the interferon-based component of these regimens," said Dr. Eric J. Lawitz, a principal investigator of the Phase lb study and director of Alamo Medical Research. "Bavituximab has a novel targeted immunomodulatory mechanism that we hope will be complementary to emerging new antiviral therapies for HCV infection. During this first multi-dose trial, we found bavituximab was well tolerated, and we look forward to additional trials that will help us understand the role that bavituximab may play in the HCV treatment paradigms now in development."

Mr. King concluded, "We are encouraged that in these initial studies, bavituximab's targeted mechanism shows signs of fewer side effects than is typical of conventional immunotherapy with interferon, while as monotherapy-- as expected--it is comparable to existing immunotherapies as measured by viral load reductions. We believe that these positive findings from our Phase lb study confirm that bavituximab may have the potential to meet the pressing need for safe and effective immunotherapy agents for patients with chronic HCV, and we also believe it may have the potential to help eradicate chronic HCV in patients when used in combination with antiviral drugs. We look forward to assessing these parameters in combination therapy HCV trials in the near future."

Planning for dose optimization and combination therapy HCV studies is nearly complete and several new bavituximab HCV studies are expected to begin shortly.

About Bavituximab

Bavituximab is the first investigational agent in a new class of anti- phosphotidylserine (PS) immunotherapeutics that targets and binds to cellular components that are normally not present on the outside of cells, but which become exposed on certain virally infected cells and on the surface of enveloped viruses. Bavituximab helps stimulate the body's immune defenses to destroy both the virus particles and the infected cells. Bavituximab has completed two Phase l trials for the treatment of chronic hepatitis C infection, and results from the Phase la study were presented at the American Association for the Study of Liver Disease annual meeting in late 2006. Similar to the proposed anti-viral mechanism, anti-phospholipid immunotherapeutic agents also bind to phospholipids exposed on tumor blood vessels in all solid cancers tested to date, and they have shown promise in a number of preclinical cancer models. Bavituximab is currently in two Phase l clinical trials for the treatment of advanced refractory solid cancers.

About Peregrine Pharmaceuticals

Peregrine Pharmaceuticals, Inc. is a biopharmaceutical company with a portfolio of innovative product candidates in clinical trials for the treatment of cancer and HCV infection. The company is pursuing five separate clinical trials in cancer and HCV infection in the U.S. and India with its lead product candidates bavituximab and Cotara®. Peregrine also has in- house manufacturing capabilities through its wholly owned subsidiary Avid Bioservices, Inc. (www.avidbio.com), which provides development and bio- manufacturing services for both Peregrine and outside customers. Additional information about Peregrine can be found at www.peregrineinc.com.

Safe Harbor Statement:

Statements in this press release which are not purely historical, including statements regarding Peregrine Pharmaceutical's intentions, hopes, beliefs, expectations, representations, projections, plans or predictions of the future are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. The forward-looking statements involve risks and uncertainties including, but not limited to, the risk that bavituximab's safety profile in a combination therapy trial will not be at the same safety level as was found in the phase 1b trial, the risk that the results of future trials will not correlate to the

results from the phase 1b trial, and the uncertainties as to whether bavituximab will reduce or eliminate the need for general immune stimulators or eradicate chronic HCV when used in combination with antiviral drugs. Factors that could cause actual results to differ materially include, but are not limited to, uncertainties associated with completing preclinical and clinical trials for our technologies; the early stage of product development; the significant costs to develop our products as all of our products are currently in development, preclinical studies or clinical trials; obtaining additional financing to support our operations and the development of our products; obtaining regulatory approval for our technologies; anticipated timing of regulatory filings and the potential success in gaining regulatory approval and complying with governmental regulations applicable to our business. Our business could be affected by all a number of other factors, including the risk factors listed from time to time in the Company's SEC reports including, but not limited to, the annual report on Form 10-K for the year ended April 30, 2006, and the quarterly report on Form 10-Q for the quarter ended October 31, 2006. The Company cautions investors not to place undue reliance on the forward- looking statements contained in this press release. Peregrine Pharmaceuticals Inc. disclaims any obligation, and does not undertake to update or revise any forward-looking statements in this press release.

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