

## Peregrine Pharmaceuticals Presents Data Supporting Broad Spectrum Anti-Viral Potential of Tarvacin(TM) at BIO 2005

Data Presented Shows That Tarvacin™ Binds to Viruses Belonging to Six Different Virus Families; Inhibits Replication of Multiple Virus Types; and Protects Against Lethal Viral Infections in Pre-Clinical Animal Models of Two Different Viruses

TUSTIN, Calif., June 22 /PRNewswire-FirstCall/ -- Peregrine Pharmaceuticals, Inc. (Nasdaq: PPHM), today presented new data at the Biotechnology Industry Organization 2005 (BIO 2005) annual meeting in Philadelphia, PA. supporting the broad anti-viral potential of Tarvacin™. The data presented at BIO 2005 showed that Tarvacin™ binds to enveloped virus particles representing 6 different virus families, binds to virally infected cells and inhibits viral replication in multiple virus systems. The data also indicated that Tarvacin™ provided significant protection against Cytomegalovirus (CMV) and Pichinde virus (an in vivo Lassa fever model) infections.

Data presented at the conference demonstrated:

- Tarvacin<sup>™</sup> binds to viruses from six different enveloped virus families, including specific binding to HIV 1 and 2, Influenz A and B, Measles, Respiratory Syncitial Virus (RSV), Bovine Viral Diarrhea (a surrogate in vitro Hepatitis C virus model), and Pichinde virus.
- Tarvacin™ binds to cells infected with Influenza, Vaccinia (a model for Smallpox) and Pichinde viruses.
- Anti-Phosphatidylserine antibodies inhibited replication of RSV, Vesicular Stomatitis Virus and Pichinde viruses.
- Anti-Phosphatidylserine antibodies provided significant protection in animals infected with cytomegalovirus (CMV) with 100% of the Anti- Phosphatidylserine antibodies treated animals surviving and only 20% of animals receiving control treatment surviving.
- Tarvacin<sup>™</sup> provided significant protection in animals administered lethal viral loads of Pichinde virus (a model of Lassa fever) with 50% of the Tarvacin<sup>™</sup> treated animals surviving and none of the animals receiving control treatment surviving.
- Animals lethally infected with Pichinde virus that survived following Tarvacin<sup>™</sup> therapy had long term immunity to reinfection.

"These data further illustrate why we are excited about the Tarvacin™ antiral program," stated Steven King, president and CEO of Peregrine. "We are looking forward to initiating the Tarvacin™ Hepatitis C clinical trial, continuing our collaboration wit National Institute of Allergy and Infectious Diseases (NIAID) and expanding into other collaborations to further explore the potential of the program for the treatment of viral infections."

Peregrine received FDA approval to begin a Tarvacin<sup>™</sup> phase I clinical trial in Hepatitis C infected patients in late May 2005. I April of 2005, Peregrine and the National Institute of Allergy and Infectious Diseases (NIAID) entered into a collaborative effort to screen Tarvacin<sup>™</sup> for activity both in vitro and in vivo against a wide variety of enveloped viruses of health and bioterrorism concern including Hepatitis C, influenza and SARS. Peregrine is continuing to evaluate Tarvacin<sup>™</sup> for the treatment of a varie of viral infections that could lead to additional therapeutic indications in this area. In addition, Peregrine is currently recruiting patients in a Tarvacin<sup>™</sup> phase I clinical trial that is open to patients with advanced solid tumor cancer.

## About Tarvacin™

Anti-Phospholipid Therapy is Peregrine's novel approach to treating cancer, viral infections and certain other diseases. It is based on the finding that aminophospholipids, which are basic components of the inner surface of the cellular membrane, become exposed in certain disease states. Tarvacin™ is a chimeric monoclonal antibody that binds to the phospholipid, phosphatidylserine, and is part of Peregrine's Anti-Phospholipid Therapy platform. Tarvacin™ binds directly to tumor blood vessels to inhibit growth and development of solid tumors. Tarvacin™ has also shown promisie the treatment of viral infections and is expected to recognize a broad spectrum of enveloped viral types. Tarvacin™ is currently being evaluated for the treatment of both cancer and viral diseases. Peregrine has received FDA approval to initiate two separate Phase 1 clinical trials in advanced solid cancer and chronic Hepatitis C virus indications.

## **About Enveloped Viruses**

A large number of viruses significant to global health and security possess an "envelope" derived from their host cell membrane. The outer shell of the virus is known as the viral envelope. Since viruses lack the means to maintain structural organization of the envelope, amino-phospholipids such as phosphatidylserine (PS) and phosphatidylethanolamine (PE) become exposed on the surface of these viruses, making them a potential therapeutic target. Peregrine Pharmaceuticals, together with its collaborators, has developed a series of monoclonal antibodies, including Tarvacin™, directed against aminophospholipids to take advantage of this property.

About Peregrine Pharmaceuticals, Inc.

Peregrine Pharmaceuticals, Inc. is a biopharmaceutical company with a broad portfolio of products under development directed towards the treatment of cancer, viruses and other diseases. The company has opened patient enrollment in a Tarvacin<sup>™</sup> clinical trial for the treatment of all solid cancers and has received clearance from the FDA to initiate a Tarvacin<sup>™</sup> Phase I clinical trial for the treatment of Hepatitis C virus infection, its first viral indication. In addition, Peregrine is in the process of initiating patient enrollment in a Cotara&reg; clinical trial for the treatment of brain cancer. Peregrine Pharmaceuticals is also developing Vascular Targeting Agents, Anti-Angiogenesis, and Vasopermeation Enhancement Agents (VEAs) for the treatment of cancer and other diseases.

Peregrine Pharmaceuticals also has in-house expertise to develop and manufacture antibodies and recombinant proteins through its wholly-owned subsidiary, Avid Bioservices, Inc., (http://www.avidbio.com). Avid is engaged in providing contract manufacturing services and development of biologics for biopharmaceutical and biotechnology companies, including Peregrine.

Copies of Peregrine Pharmaceuticals press releases, SEC filings, current price quotes and other valuable information for investors may be found at http://www.peregrineinc.com.

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 uncertainties that pre-clinical binding studies of Tarvacin™ against various enveloped viruses may prove to be ineffective during clinical testing. It is important to note that the company's actual results could differ materially from those in any such forward-looking statements. Factors that could cause actual results to differ materially include, but are not limited to, uncertainties associated with completing pre-clinical 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, pre-clinical 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 of the foregoing and 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, 2004, and the quarterly report on Form 10-Q for the quarter ended January 31, 2005. 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.

SOURCE Peregrine Pharmaceuticals, Inc.

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