



April 4, 2005

## **Peregrine Pharmaceuticals' Tarvacin(TM) Shows Significant Anti-Viral Activity**

### **Data to Be Presented at American Association of Immunologists Annual Meeting Supports Novel Approach to Treating Hemorrhagic Fever, a Health and Global Bioterrorism Concern**

SAN DIEGO, April 4, 2005 /PRNewswire-FirstCall via COMTEX/ -- Peregrine Pharmaceuticals, Inc. (Nasdaq: PPHM), today announced that there will be two presentations, April 4 and 6, at the American Association of Immunologists (AAI) annual meeting in San Diego, California, indicating the anti-viral potential of its Tarvacin™ antibody. Dr. Melina Soares of The University of Texas Southwestern Medical Center at Dallas will present pre-clinical data titled "Targeting inside-out phospholipids on viruses in a guinea pig model of Lassa fever." The data to be presented demonstrates that Tarvacin™ has significant anti-viral activity in the treatment of Pichinde virus, which is an established model for Lassa fever, a fatal viral hemorrhagic fever that is on the U.S. government's biodefense Category A watch list.

#### Key Study Findings Include:

\* Animals lethally infected with Pichinde virus and then treated with Tarvacin™ showed a 50 percent survival rate as compared to zero survivors in the control treated group.

\* Surviving animals did not show any signs of viral infection several months after treatment with Tarvacin™ and were considered to have been disease free.

\* Surviving animals had long-term immunity to further infection with the Pichinde virus.

\* Tarvacin™ protected lethally infected animals whether treated at the time of viral challenge or once symptoms had developed indicating an active viral infection.

\* Tarvacin™ binds to both Pichinde viral particles and Pichinde infected cells.

"The pre-clinical data demonstrate that Tarvacin™ and related Anti-Phospholipid Therapy agents have anti-viral activity which, if proven out in the clinic, has far reaching implications for the treatment of infectious disease," said Dr. Philip Thorpe, professor of pharmacology at UT Southwestern, and the co-author on the presentations. "Since Tarvacin™ targets a basic, universal property of enveloped viruses that is host-derived and independent of the viral genome, it may be effective against a broad spectrum of enveloped viruses. This target may also be difficult for viruses to overcome via resistance mechanisms."

Enveloped viruses account for many of the most concerning viral health risks including HIV, Hepatitis B and C, cytomegalovirus, hemorrhagic fever, SARS and various types of influenza including Avian influenza. The presentations represent a summary of first-year results from an ongoing 3-year, \$1.68 million grant from the National Institute of Allergy and Infectious Disease (NIAID), which is part of the National Institutes of Health (NIH). The funded research is investigating the ability of anti-phospholipid antibodies to bind directly to enveloped viruses and to virally infected cells from a number of viruses.

"This data supports a second exciting opportunity for Tarvacin™ to accompany the broad anti-cancer activities seen with the same compound," said Steven King, president and CEO of Peregrine. "Because we have a complete IND package for manufacturing and pre-clinical safety of Tarvacin™ that was used to support the upcoming Phase I cancer therapy clinical trial we may be able to initiate clinical evaluation of Tarvacin™ in the near future as an antiviral agent."

#### About Anti-Phospholipid Therapy in the Treatment of Viral Diseases

Anti-Phospholipid Therapy is Peregrine's novel approach to treating cancer, viral infections and certain ocular diseases. It is

based on the finding that aminophospholipids, which are basic components of the inner surface of the cellular membrane, become exposed as antigenic targets in response to certain disease states.

A large number of viruses significant to global health and security possess an "envelope" derived from their host cell membrane. 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, together with its collaborators, has developed a series of monoclonal antibodies directed against aminophospholipids to take advantage of this property.

#### About Peregrine Pharmaceuticals

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. Our oncology programs are primarily focused on the areas of anti-phospholipid technology, anti-angiogenesis and vascular targeting. We are also investigating potential antiviral applications for our antiphospholipid technology platform through collaborations with UT Southwestern and the National Institute for Allergy and Infectious Disease (NIAID), which is part of the National Institutes of Health.

Peregrine 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 likelihood of consistent survival rates with other viruses in animal models, the timing of submitting an Investigative New Drug application to commence a phase I study using Tarvacin™ for viruses, initiating patient enrollment under the Tarvacin™ Phase I cancer study in the near term, and continuing to receive assistance from scientists on our Scientific Resource Board in the evaluation of potential ways to use Anti-Phospholipid Therapy agents clinically to treat viral diseases. 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. 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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