

## Peregrine Gains Access to Merck KGaA's Protein Expression Technology

Technology Will be Employed to Advance Peregrine's Vasopermeation Enhancement Agent (VEA) Technology Toward Clinical Trials

TUSTIN, Calif., Jan. 24 /PRNewswire-FirstCall/ -- Peregrine Pharmaceuticals, Inc. (Nasdaq: PPHM), a biopharmaceutical company with a broad portfolio of products under development, today announced that the company has entered into an agreement with Merck KGaA of Darmstadt, Germany, that will give Peregrine access to Merck's technology and expertise in protein expression. The goal of the collaboration is to use protein expression technologies developed by Merck's affiliate EMD Lexigen Research Center to advance the development of Peregrine's VEA technology platform. In addition, Peregrine will gain access to Merck's proprietary protein expression system to develop and enhance other antibodies and antibody-based fusion proteins under its Vascular Targeting Agent, Anti-Phospholipid and Anti-Angiogenesis programs.

"We are pleased to expand our relationship with Merck KGaA and expect this technology to help us speed development of a VEA clinical candidate," stated Steven King, Peregrine's president and CEO. "Access to Merck KGaA's proven expression system and technical expertise should be invaluable as we continue to expand our broad portfolio of products under development."

## About VEA

Vasopermeation Enhancement Agents (VEAs) are a class of agents that enhance the efficacy of cancer therapeutics by increasing their uptake into solid tumors. VEAs work by selectively targeting known vasoactive compounds (i.e. molecules that cause tissues to become more permeable) to solid tumors. Once localized at the tumor site, VEAs make blood vessels within a tumor more leaky, allowing administered chemotherapies to better penetrate the tumor mass.

In published reports, scientists have seen an almost 400% increase in the normal amount of chemotherapeutic agent taken up by solid tumors with a VEA pre-treatment. In pre-clinical studies, Peregrine's VEA technology has been shown to significantly improve the effectiveness of chemotherapeutic agents including Doxorubicin, Taxol, Vinblastine, VP-16 and Taxotere in tumor therapy experiments.

## **About Peregrine Pharmaceuticals**

Peregrine Pharmaceuticals is a biopharmaceutical company primarily engaged in the research, development, manufacture and commercialization of products for the treatment and diagnosis of cancer and other diseases through a series of proprietary platform technologies. The company is primarily focused on discovering and developing products that affect blood vessels and blood flow in cancer and other diseases. Peregrine's vascular research programs fall under several different proprietary platforms, including Anti-Phospholipid Therapy (APT), Vascular Targeting Agents (VTAs), Anti-Angiogenesis and Vasopermeation Enhancement Agents (VEAs). The company is working closely with the U.S. Food and Drug Administration (FDA) to initiate its first clinical trial under its APT program using Tarvacin<sup>™</sup>. Tarvacin is an antibody that binds to the phospholipid, phosphatidylserine, a target on tumor blood vessels, to inhibit tumor growth and development.

Peregrine's most clinically advanced therapeutic program is known as Tumor Necrosis Therapy (TNT) and targets dead or dying tumor cells that are common to the majority of different tumor types. The company is developing a radioactive TNT agent that it has trademarked Cotara® for the treatment of cancer. The company is working with the New Approaches to Brain Tumor Therapy (NABTT) Consortium to initiate the first part of Peregrine's U.S. FDA-approved product registration trial using Cotara to treat patients with brain cancer. Peregrine has also completed enrollment in a Phase I Cotara clinical trial for the treatment of colorectal carcinoma at Stanford University Medical Center and is working closely with scientific advisors to design Phase II studies using Cotara for other solid tumor indications. In addition, a TNT-based agent similar to Cotara was developed under a licensing agreement in China and has received marketing approval for the treatment of advanced lung cancer.

The company's wholly owned subsidiary, Avid Bioservices, Inc. (http://www.avidbio.com), develops and manufactures monoclonal antibodies and recombinant proteins to support Phase I through Phase III clinical trials for biotechnology companies, including Peregrine.

Copies of Peregrine press releases, SEC filings, current price quotes and other valuable information for investors may be

found at http://www.peregrineinc.com .

Safe Harbor Statement: This release may contain certain forward-looking statements that are made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Except for historical information presented herein, matters discussed in this release contain certain forward- looking statements. The inclusion of forward-looking statements should not be regarded as a representation by us, or any other person, that the objectives or plans will be achieved. The words "may," "should," "plans," "believe," "anticipate," "estimate," "expect," their opposites and similar expressions are intended to identify forward-looking statements. We caution readers that such statements are not guarantees of future performance or events and are subject to a number of factors that may tend to influence the accuracy of the statements, including, but not limited to, risk factors discussed in Peregrine's report on Form 10-K for the year ended April 30, 2004 and subsequent quarterly reports on Form 10-Q. Peregrine disclaims any obligation and does not undertake to update or revise the forward-looking statements discussed in this press release.

SOURCE Peregrine Pharmaceuticals, Inc.

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