April 15, 2008

Preclinical Study Presented at AACR Annual Meeting Shows Peregrine's Anti-PS Immunocytokines Can Generate Protective Immune Responses in a Highly Aggressive Breast Cancer Model

- 80% of Subjects Immunized with Anti-PS Immunocytokines and Irradiated Tumor Cells Achieved Long-Term Survival Compared to Just 20% of Controls -
- Data Highlights Broad Anti-Cancer Potential of Peregrine's Anti-PS Vascular Targeting Antibodies -

SAN DIEGO and TUSTIN, Calif., April 15, 2008 /PRNewswire-FirstCall via COMTEX News Network/ -- Peregrine Pharmaceuticals, Inc. (Nasdaq: PPHM) reported that a preclinical study presented yesterday at the 2008 Annual Meeting of the American Association for Cancer Research (AACR) demonstrates the vaccine-like ability of immunocytokine proteins combining its anti-phosphatidylserine (anti-PS) antibodies and cytokines such as IL-2 to generate robust and protective immune responses in a highly aggressive cancer model. Dr. Xianming Huang, assistant professor of pharmacology, and colleagues at the University of Texas Southwestern Medical Center at Dallas presented their findings from a study in mice assessing the efficacy of a tumor vaccine approach that uses these anti-PS immunocytokines in combination with radiation to achieve immunity to a lethal form of breast cancer.

Dr. Huang commented, "A likely contributor to the lack of immunogenicity of tumors is the fact that phosphatidylserine (PS) expressed on the surface of some cancer cells acts to dampen the body's normal immune response. By coating cancer cells with our anti-PS immunocytokines and then irradiating them to up-regulate the expression of the PS target, we were able to block the immunosuppressive effect of the PS. This enabled the pre-treated animals to leverage the T-cell activating effects of the IL-2 in the immunocytokine to mount a robust and sustained immune response to this unusually aggressive cancer."

In the study, researchers irradiated an aggressive and metastatic strain of breast cancer cells coated with an immunocytokine comprised of the bavituximab equivalent 2aG4 fused with IL-2, which stimulates the immune system by activating anti-tumor T-cells. Mice were administered four doses of these irradiated immunocytokine-coated cells before receiving an implant of live breast cancer cells. Eight of the 10 mice, or 80%, receiving prophylactic pre-treatment with irradiated breast cancer and immunocytokine cells did not develop any tumors and remained tumor-free through 270 days post-treatment. Among control animals receiving either 2aG4 alone or IL-2 fused to a non-specific antibody, only two of 10 mice, or 20%, remained tumor-free. All of the control animals receiving irradiated breast tumor cells alone developed lethal tumors.

Dr. Philip Thorpe, an author of the study who is an advisor to Peregrine and a professor of pharmacology at UT Southwestern noted, "This study provides further evidence that our anti-PS antibodies have the potential to reverse the immunosuppressive effects of PS on some tumor cells, in addition to their well-documented ability to selectively target and destroy tumor blood vessels. We look forward to further investigating the clinical utility of these unique anti-cancer properties in combination with other anti-cancer regimens."

Bavituximab is a monoclonal antibody that binds to a phospholipid called phosphatidylserine that is usually located inside normal cells, but which becomes exposed on the outside of the cells that line the blood vessels of tumors, creating a specific target for anti-cancer treatments. Bavituximab helps mobilize the body's immune system to destroy the blood vessels needed for tumor growth and spread. In a Phase Ib pilot trial in advanced cancer patients, bavituximab plus chemotherapy appeared to have a safety profile consistent with chemotherapy alone and showed positive signs of clinical activity, achieving objective response or disease stabilization in 50% of the evaluable patients. Peregrine has received regulatory approval to conduct three Phase II trials to study the anti-tumor effects of bavituximab in combination with chemotherapy. These include two breast cancer protocols and a non-small cell lung cancer protocol. One of the bavituximab breast cancer trials is currently enrolling and dosing patients and the two other trials are expected to begin shortly. Bavituximab is in clinical trials in the U.S. in patients with advanced solid tumors and in patients co-infected with HCV and HIV.

No. 2841: Xianming Huang, Dan Ye, Philip E. Thorpe. An immunocytokine that binds to phosphatidylserine generates an effective cell-based tumor vaccine in mice, UT Southwestern Medical Ctr., Dallas, TX, April 14, 2008, 1:00 PM - 4:00 PM PDT

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 hepatitis C virus (HCV) infection. The company is pursuing three separate clinical programs in cancer and HCV infection with its lead product candidates bavituximab and Cotara(R). Peregrine also has in-house manufacturing capabilities through its wholly owned subsidiary Avid Bioservices, Inc. (http://www.avidbio.com), which provides development and bio-manufacturing services for both Peregrine and outside customers. Additional information about Peregrine can be found at http://www.peregrineinc.com.

Safe Harbor Statement: Statements in this press release which are not purely historical, including statements regarding Peregrine Pharmaceuticals' 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 results from future preclinical studies and clinical trials will not correlate with the results of these preclinical studies. 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 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 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, 2007 and the quarterly report on Form 10-Q for the quarter ended January 31, 2008. 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.

Contacts:
GendeLLindheim BioCom Partners

Investors	Media
info@peregrineinc.com	Barbara Lindheim
(800) 987-8256	(212) 918-4650

SOURCE Peregrine Pharmaceuticals, Inc.

http://www.peregrineinc.com