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Data Presented at AACR Meeting Shows Bavituximab Equivalent Plus Docetaxel Reduces Growth of Both Hormone-Dependent and Hormone-Independent Prostate Cancer by Up to 94 Percent in Preclinical Studies

- Combination Therapy Significantly Decreased Tumor Blood Vessel Density and Serum PSA Levels in Prostate Tumors
- Docetaxel One of Chemotherapies Being Studied in Combination With Bavituximab in Phase Ib Clinical Study That Recently Completed Enrollment

LOS ANGELES and TUSTIN, Calif., April 17 /PRNewswire-FirstCall/ -- Peregrine Pharmaceuticals, Inc. (Nasdaq: PPHM), a clinical stage biopharmaceutical company developing targeted monoclonal antibodies for the treatment of cancer and hepatitis C virus (HCV) infection, today announced that preclinical data presented at the Centennial Annual Meeting of the American Association for Cancer Research (AACR) confirms that a mouse equivalent to Peregrine's novel monoclonal antibody bavituximab given in combination with docetaxel decreased the growth of common forms of prostate cancer significantly more than either agent alone. This increase in anti-tumor efficacy was achieved with no apparent increase in toxicity. Researchers also observed that in one tumor model, the combination significantly decreased the level of serum PSA, a biomarker for prostate cancer, and in both tumor types tested it was more effective in decreasing the density of the microvessels needed to support tumor growth and development.

"This data reaffirms the potential of bavituximab for the treatment of prostate cancer in combination with docetaxel and is particularly timely since we recently completed enrollment in our first human trial of bavituximab in combination with anti-cancer agents including docetaxel," said Steven W. King, president and CEO of Peregrine. "We look forward to assessing further bavituximab's anti-cancer potential in our ongoing clinical trials, as well as in new combination therapy clinical studies we will be initiating later this year."

In this study, the anti-phosphatidylserine (anti-PS) monoclonal antibody 2aG4 (a mouse equivalent antibody to bavituximab) was administered to male mice that had been injected with common forms of hormone dependent and hormone independent tumor cells. Docetaxel and 2aG4 alone or in combination were administered at different time points. Treatment with the combination regimen reduced the growth of small tumors by 80% to 82% and of well-established tumors by 92% to 94%. The anti-tumor effect of the combination regimen was significantly superior to that of the individual treatments ($P < 0.01$). Yet the combination therapy was no more toxic to the mice than was docetaxel alone as judged by physical signs and body weight changes.

Tumor microvessel density, which is correlated with tumor growth rates, was further reduced in tumors treated with the combination regimen compared with tumors from single agent-treated animals. In addition, serum PSA levels in combination-treated mice registered a significantly greater decrease ($P < 0.05$) in one of the tumor models compared to the decrease seen in either the docetaxel-treated or 2aG4-treated animals.

Bavituximab is a targeted monoclonal antibody that binds to a phospholipid called phosphatidylserine, which is located on the inside of normal cells, but which becomes exposed on the outside of the cells that line the blood vessels of tumors, thus creating a specific target for anti-cancer treatments. Once bound to the tumor blood vessels, bavituximab alerts the body's immune system to attack the tumor's blood supply, stopping the flow of oxygen and nutrients to the tumor cells and resulting in tumor cell death. As an anti-cancer immunotherapeutic, bavituximab may have broad potential in a wide variety of solid cancers. It is currently in Phase Ia cancer safety trials as a monotherapy and in a Phase Ib trial in combination with docetaxel and other chemotherapy agents in patients with advanced solid cancers, including prostate, breast and lung cancer. Interim data indicate that more than half of the cancer patients in this study who have completed treatment to date were assessed as demonstrating stable disease or an objective response.

Prostate cancer is the most commonly diagnosed cancer in men, accounting for 30% of all male cancers, and it is second only to lung cancer as a leading cause of cancer deaths in men. Currently, there is no cure for locally advanced or metastatic prostate cancer.

This research, which was conducted under the direction of Dr. Philip Thorpe at the University of Texas Southwest Medical Center at Dallas, was supported in part by a sponsored research agreement with Peregrine Pharmaceuticals and by a grant from the U.S. Department of Defense (DOD PC05031 grant). Preliminary data from this study was first presented at a scientific meeting in December 2006.

Number 3273: Vascular Targeting Antibody Improves Chemotherapy of Prostate Cancer, Yi Yin, Xianming Huang, Jin He, Troy A. Luster, Philip E. Thorpe. UT Southwestern Medical Center, Dallas, TX, Apr 16, 2007, 1:00 PM - 5:00 PM

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 for HCV infection and a range of solid cancers 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 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 preclinical animal model results will not correlate to efficacy studies in human clinical trials, the risk that the results will not support future clinical trials with bavituximab in combination with chemotherapeutic agents, or the risk that safety and efficacy studies in the Phase I study may not correlate to safety and efficacy data generated from preclinical animal models. 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, 2006 and the quarterly report on Form 10-Q for the quarter ended January 31, 2007. 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
info@peregrineinc.com
(800) 987-8256

Media
Barbara Lindheim
(212) 918-4650

SOURCE: Peregrine Pharmaceuticals, Inc.

CONTACT:
Investors,
GendeLLindheim BioCom Partners,
+1-800-987-8256, info@peregrineinc.com, or
Media,
Barbara Lindheim of GendeLLindheim BioCom Partners,
+1-212-918-4650,
for Peregrine Pharmaceuticals, Inc.

Web site: http://www.peregrineinc.com