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Data Presented at AACR Annual Meeting Shows Bavituximab Equivalent Plus Docetaxel Reduces Tumor Growth By Up to 95% and Halts Metastasis in a Model of Hormone-Refractory Prostate Cancer

-No Metastatic Lesions Were Detectable After Combination Therapy Treatment-
-Survival Time More Than Doubled in Animals Treated with Combination Therapy-
-Established Tumors Regressed by 50% After Combination Therapy Treatment-

SAN DIEGO and TUSTIN, Calif., April 15, 2008 /PRNewswire-FirstCall via COMTEX News Network/ -- 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 2008 Annual Meeting of the American Association for Cancer Research (AACR) shows that a mouse equivalent of Peregrine's anti-phosphatidylserine (anti-PS) vascular targeting antibody bavituximab administered in combination with the chemotherapeutic agent docetaxel demonstrated excellent signs of efficacy in a preclinical model of hormone-refractory prostate cancer. These new data confirm and extend the results of previous studies of Peregrine's anti-PS antibodies in models of prostate cancer. They were described by researchers in an oral presentation at the AACR Annual Meeting at 2:10pm PDT on April 14, 2008 in San Diego, California.

Dr. Yi Yin, a postdoctoral researcher in the laboratory of Dr. Philip Thorpe, professor of pharmacology at the University of Texas Southwestern Medical Center at Dallas, reported that in a mouse model of hormone-refractory prostate cancer, the combination of the bavituximab equivalent antibody 2aG4 and the chemotherapy drug docetaxel significantly decreased the growth of tumors, eliminated detectable metastases and prevented tumor re-growth. This increase in anti-tumor efficacy and anti-metastatic activity was achieved with no apparent increase in toxicity compared to docetaxel alone.

Specifically, in the study 2aG4 administered with docetaxel reduced primary tumor burden by 95%, an anti-tumor effect that was significantly superior to that of the individual treatments administered alone. Treatment with the combination of 2aG4 and docetaxel also reduced the metastatic spread of tumor cells. In animals treated with the combination regimen, none of the treated mice (or 0%) exhibited detectable metastatic lesions, while 100% of the mice treated with a non-specific control antibody, 67% of mice treated with 2aG4 alone and half the mice treated with docetaxel alone exhibited metastatic lesions. The combination was also superior at preventing tumor re-growth. Thirteen weeks post-treatment, tumors in animals treated with the combination regimen had regressed to less than 50% of their initial volume, while in mice treated with either therapy alone or with a control antibody, the tumors increased in size by factors of between 1.5 and 5 times. Survival time was more than doubled in animals receiving combination therapy compared to controls, and was substantially longer than the survival of animals treated with either therapy alone.

"These very promising results reinforce and extend the findings of previous preclinical studies highlighting the potential of our anti-PS antibodies in combination regimens for the treatment of prostate cancer," said Steven W. King, president and CEO of Peregrine. "We are particularly encouraged by data showing that the combination of a bavituximab equivalent and docetaxel eliminated the production of detectable metastases entirely in this model, while more than doubling the survival time of the treated animals. We are currently testing this same combination regimen of bavituximab and docetaxel in a Phase II trial in patients with breast cancer, and we look forward to potentially assessing bavituximab in combination regimens in prostate cancer in future clinical trials."

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.

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. Thorpe at UT Southwestern, was supported in part by a sponsored research agreement with Peregrine Pharmaceuticals and by a grant from the U.S. Department of Defense.

Number 2551: Yi Yin, Philip E. Thorpe. Combination of a monoclonal anti-phosphatidylserine antibody with docetaxel strongly inhibits the growth and metastasis of hormone-refractory prostate cancers in mice, UT Southwestern Medical Center, Dallas, TX, April 14, 2008, 2:10 PM - 2:25 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 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, the risk that bavituximab will not provide comparable results in combination with other cancer therapies and the risk that the Company will experience delays in enrolling patients in its existing and planned clinical 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 October 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.

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