April 2, 2012

# Promising Data Presented at AACR Further Support New Lung Cancer Treatment Combination as Well as Ongoing Studies of Peregrine's Bavituximab

## Data From Phase I Trial Evaluating Bavituximab Plus Carboplatin and Pemetrexed Indicate Encouraging Anti-Tumor Activity and a Positive Safety Profile; Data From Imaging Studies Show Potent Upregulation of Bavituximab's PS Target Following Docetaxel Treatment Further Supporting Ongoing Bavituximab Plus Docetaxel Phase II NSCLC Trial

TUSTIN, CA -- (Marketwire) -- 04/02/12 -- Peregrine Pharmaceuticals, Inc. (NASDAQ: PPHM), a clinical-stage biopharmaceutical company developing first-in-class monoclonal antibodies for the treatment of cancer and infectious diseases, today highlighted data(1) presented at the Annual Meeting of the American Association for Cancer Research (AACR) from a Phase Ib Investigator Sponsored Trial (IST) evaluating Peregrine's lead PS-targeting antibody bavituximab in combination with carboplatin and pemetrexed in patients with previously untreated Stage IV non-small cell lung cancer (NSCLC). Data from the initial five patients including two dose levels of bavituximab indicate a promising safety profile comparable to that expected for the chemotherapy combination alone, with 3 patients achieving a partial tumor response and no signs of unexpected safety events. The study is currently ongoing and additional data is expected in 2012 as patient treatment and follow-up continues.

In another presentation scheduled for later today, data will be presented from a series of preclinical studies evaluating PS as an imaging target. Those studies have further validated the ability of docetaxel to strongly upregulate exposure of bavituximab's PS target. These data further support an ongoing phase II randomized, double blinded trial evaluating bavituximab in combination with docetaxel in 121 second-line NSCLC patients with top-line data expected to be reported in the first half of 2012.

Based on bavituximab's broad therapeutic potential, the product is currently being tested in a total of seven clinical oncology studies including three randomized Phase II trials in front-line and second-line non-small cell lung cancer (NSCLC), front-line pancreatic cancer and four ISTs in additional oncology indications with clinical data from each study expected in 2012.

"ISTs are an important part of our overall clinical development strategy with the potential to yield critical safety information for new drug combinations and early signs of potential anti-tumor activity that can help guide our overall clinical development. In that regard, we are very happy with the early results from this study which so far support the safety profile of bavituximab with this important chemotherapy combination and with some interesting early tumor responses in the study," said Steven W. King, president and chief executive officer of Peregrine. "Bavituximab is now being clinically administered in conjunction with a growing number of different chemotherapies. We believe that data from studies like this IST and the imaging data to be presented later today will be the cornerstone of a successful bavituximab development program. We look forward to additional data from these studies as patient enrollment and follow-up continue and as we continue to explore more possible treatment combinations with bavituximab."

*About the Phase Ib NSCLC Study*
In this Phase Ib single-arm, open-label investigator-sponsored clinical trial (IST), up to 25 patients with previously untreated locally advanced or metastatic non-squamous NSCLC will receive up to six 21-day cycles of the drugs pemetrexed and carboplatin with weekly bavituximab until progression or toxicity. The primary endpoint of the study is to determine the safety, dose-limiting toxicity (DLT) and recommended Phase II dose of bavituximab in combination with carboplatin and pemetrexed in non-squamous NSCLC. Secondary endpoints include assessment of overall response rate (ORR) measured by RECIST criteria, progression-free survival (PFS) and overall survival (OS) and exploratory biomarkers.

For further information about this trial, please visit http://www.peregrinetrials.com or http://www.clinicaltrials.gov/ct2/results?term=bavituximab.

*About Peregrine's Investigator-Sponsored Trials (IST) Program*
Peregrine's IST program offers oncologists the opportunity to conduct clinical trials investigating bavituximab's potential in additional indications and treatment combinations. To apply for Peregrine's IST program, please visit http://www.peregrineinc.com/pipeline/investigator-sponsored-trials.html.

*About Lung Cancer*

Lung cancer is the leading cause of cancer death. According to the American Cancer Society, lung cancer is the second most commonly diagnosed cancer, with approximately 219,440 new cases and 159,000 deaths each year in the U.S. NSCLC is the most common type of lung cancer, accounting for approximately 85-90% of lung cancer cases.

*About Bavituximab*
Bavituximab is a first-in-class phosphatidylserine (PS)-targeting monoclonal antibody that represents a new approach to treating cancer. PS is a highly immunosuppressive molecule usually located inside the membrane of healthy cells, but "flips" and becomes exposed on the outside of cells that line tumor blood vessels, creating a specific target for anti-cancer treatments. PS-targeting antibodies target and bind to PS and block this immunosuppressive signal, thereby enabling the immune system to recognize and fight the tumor.

1. Presentation Title: A phase Ib study of bavituximab plus carboplatin and pemetrexed in chemotherapy naive stage IV non-squamous non-small cell lung cancer
Presentation Time: Monday, Apr 02, 2012, 8:00 AM - 12:00 PM
Location: McCormick Place West (Hall F), Poster Section 27
Poster Board Number: 4
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*About Peregrine Pharmaceuticals*
Peregrine Pharmaceuticals, Inc. is a biopharmaceutical company with a portfolio of innovative monoclonal antibodies in clinical trials for the treatment of cancer and serious viral infections. The company is pursuing multiple clinical programs in cancer and infectious diseases with its lead product candidate bavituximab and novel brain cancer agent Cotara®. Peregrine also has in-house cGMP manufacturing capabilities through its wholly-owned subsidiary Avid Bioservices, Inc. (www.avidbio.com), which provides development and biomanufacturing 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 data from future trials evaluating bavituximab in combination with carboplatin and pemetrexed will not be consistent with the data from the Phase I trial, and the risk that Peregrine may not have or raise adequate financial resources to complete the planned clinical programs. Factors that could cause actual results to differ materially or otherwise adversely impact the company's ability to obtain regulatory approval for its product candidates 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, 2011 and the quarterly report on Form 10-Q for the quarter ended January 31, 2012. 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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