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Peregrine Pharmaceuticals Highlights Promising Early Data From Its Three Phase II Bavituximab Cancer Trials

-- 71% Objective Tumor Response in Combination with Docetaxel in Advanced Breast Cancer - -- 65% Objective Tumor Response in Combination with Carboplatin/Paclitaxel in Advanced Lung Cancer - -- 64% Objective Tumor Response in Combination with Carboplatin/Paclitaxel in Advanced Breast Cancer - -- Data in All Three Studies Surpassed Pre-Established Criteria for Expansion of Patient Enrollment - -- Positive Initial Data across Indications and Chemotherapy Regimens Suggests Bavituximab Could Have Broad Anti-Cancer Utility -

TUSTIN, Calif., June 3, 2009 /PRNewswire-FirstCall via COMTEX News Network/ -- Peregrine Pharmaceuticals, Inc. (Nasdaq: PPHM) today highlighted the progress that the company has achieved in its Phase II program assessing the combination of bavituximab and chemotherapy in three separate cancer trials. Bavituximab is a monoclonal antibody with a unique mechanism that allows the body's own immune system to recognize and act on the tumor and its supporting blood vessels, resulting in anti-cancer effects. Bavituximab is currently being tested in combination with chemotherapy in one Phase II trial in advanced lung cancer and two Phase II trials in advanced breast cancer. Recently-reported data highlights from these studies include the following:

-- Non-Small Cell Lung Cancer: Bavituximab in Combination with Carboplatin and Paclitaxel
In the Phase II trial evaluating bavituximab in combination with carboplatin and paclitaxel in non-small cell lung cancer (NSCLC) patients with locally advanced or metastatic disease, 11 of 17, or almost 65% of evaluable patients in the initial cohort of 21 patients achieved an objective tumor response. These early results, which exceeded the pre-specified endpoint needed to expand the trial, compare very favorably with historical data with chemotherapy alone and are especially encouraging in this hard-to-treat cancer. Patient enrollment and dosing are continuing in the expansion stage of the trial, which will enroll an additional 28 patients for a total of 49 NSCLC patients overall.

-- Advanced Breast Cancer: Bavituximab in Combination with Docetaxel
In the Phase II trial evaluating bavituximab in combination with docetaxel in advanced breast cancer patients, enrollment of the planned 46 patients was recently completed. As reported in an oral presentation at the 2009 ASCO Annual Meeting, 10 of 14, or 71% of evaluable patients in the initial 15-patient cohort demonstrated an objective tumor response. These data exceeded the pre-specified endpoint needed to expand the trial and compare very favorably with historical data with chemotherapy alone. Recent analysis also shows the median progression free survival of the patients enrolled in the first part of the study was 7.4 months, an additional promising early result. Patient dosing and follow-up in this trial are continuing.

-- Advanced Breast Cancer: Bavituximab in Combination with Carboplatin and Paclitaxel
In the Phase II trial evaluating bavituximab in combination with carboplatin and paclitaxel in advanced breast cancer patients, nine of 14, or 64% of evaluable patients in the initial 15-patient cohort achieved an objective tumor response. These data exceeded the pre-specified endpoint needed to expand the trial and compare favorably with historical results with chemotherapy alone. Patient enrollment

and dosing are now underway in the expansion stage of the trial, which will enroll an additional 31 patients for a total of 46 advanced breast cancer patients overall.

The primary objective of these multi-center, open-label studies is to assess the overall patient response rate to the combination regimen of bavituximab and chemotherapy according to RECIST criteria. Secondary objectives include measuring time to tumor progression, duration of response, overall patient survival and safety parameters. The Phase II bavituximab cancer trials have a Simon two-stage design, where an initial cohort of patients is treated and evaluated and then the study is expanded to a second larger cohort of patients if pre-specified criteria are met. All three trials surpassed the criteria for expanding enrollment to the second cohort. Enrollment of the expanded cohort is now complete in one trial and is proceeding in the other two trials.

"Having just completed a busy round of successful data presentations and partnering meetings at ASCO, we are gratified at the level of interest the bavituximab program is now receiving from leading cancer researchers and drug developers," said Steven W. King, president and CEO of Peregrine. "We believe this growing interest reflects our recent progress in successfully advancing all three Phase II bavituximab cancer trials, easily surpassing the pre-determined efficacy criteria needed to expand the trials to larger patient cohorts. The trials encompass different cancers and different chemotherapy regimens, yet in all three, preliminary data on tumor responses are very encouraging and compare well with historical experience with chemotherapy alone. With these encouraging results in hand, we look forward to sharing additional data on the entire clinical study populations in the second half of 2009."

About Phosphatidylserine (PS)-Targeting Immunotherapies

The rapid and disorganized growth that is the hallmark of cancer results in the exposure of the lipid phosphatidylserine (PS) on the surface of tumor blood vessels. Since these phospholipids are typically not exposed on the surface of normal tissues, they represent a unique target for anti-cancer treatments. Bavituximab is a monoclonal antibody that binds specifically to these phospholipids exposed on the surface of the cells lining tumor blood vessels. Once bound, bavituximab alerts the body's immune system to attack the tumor blood vessels, inhibiting tumor growth and proliferation. In addition, a growing body of evidence supports the active role of PS in immune signaling, with recent research showing that exposed PS can have an immunosuppressive effect and dampen the body's normal response to cancer. By binding to and blocking PS, bavituximab is believed to boost the body's ability to combat cancer via this second immunostimulatory mechanism. Further information on the role of exposed PS in the tumor environment can be found in the Anti-PS Technical Backgrounder posted at www.peregrineinc.com.

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 three separate clinical programs in cancer and hepatitis C virus 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. (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 the rate of objective tumor response for the expansion stages of the company's three Phase II trials will not be consistent with the objective tumor responses experienced in the first stage of the respective Phase II trials and the risk that the standard chemotherapy response rate will not be improved as a result of the combination therapy with the inclusion of bavituximab . 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 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, 2008 and the quarterly report on Form 10-Q for the quarter ended January 31, 2009. 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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