

Phase II Advanced Breast Cancer Data to Be Presented at ASCO Highlight Promising Tumor Response and Progression-Free Survival Data With Peregrine's Bavituximab

74% of Front-Line Patients Achieved Tumor Response, Median PFS of 6.9 Months; Study Supports Potential of Bavituximab and Paclitaxel/Carboplatin for Solid Tumors

TUSTIN, CA, May 27, 2010 (MARKETWIRE via COMTEX News Network) -- Peregrine Pharmaceuticals, Inc. (NASDAQ: PPHM), a clinical-stage biopharmaceutical company developing innovative monoclonal antibodies for the treatment of cancer and viral infections, today announced positive objective tumor response and median progression-free survival (PFS) data from a Phase II trial evaluating bavituximab in combination with paclitaxel and carboplatin chemotherapy in patients with advanced breast cancer. These data will be highlighted in a poster presentation on June 5, 2010 at the 2010 ASCO Annual Meeting.

"The overall tumor response of 74% of patients in this study and median PFS of 6.9 months are promising results in this breast cancer patient population," commented Minish Jain, M.D., an investigator of this trial and oncologist at the Ruby Hall Clinic in Pune, India. "These results demonstrate the potential of bavituximab to be used in combination with paclitaxel and carboplatin in the treatment of solid tumors such as advanced breast cancer."

Bavituximab in combination with paclitaxel and carboplatin is being evaluated in two Phase II trials, including front-line advanced breast cancer and front-line non-small cell lung cancer (NSCLC). 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.

"The data to date from our Phase II cancer trials using the combination of bavituximab with paclitaxel and carboplatin have been encouraging and we look forward to advancing this combination into future Phase II clinical trials," said Marvin R. Garovoy, M.D., head of clinical science of Peregrine. "To further the evaluation of this and other combinations with bavituximab for breast cancer, we are seeking investigators interested in our investigator-sponsored trials program, which is designed to support researchers who have an interest in exploring different therapeutic applications and indications."

About the Phase II Trial In Peregrine's front-line advanced breast cancer Phase II trial assessing bavituximab in combination with paclitaxel and carboplatin, 74% (34 of 46) of patients achieved an objective tumor response by the end of the treatment period and 9% (4 of 46) achieved a clinical complete response. Median PFS was 6.9 months and median overall survival will be reported once these data mature. These results compare favorably to data from a separate published study showing an objective response rate of 62% and median PFS of 4.8 months in a similar patient population receiving paclitaxel and carboplatin alone.

Peregrine's multi-center, open-label Phase II breast cancer trial was primarily intended to assess overall response rates to bavituximab combined with standard of care chemotherapeutic agents paclitaxel and carboplatin. Secondary objectives of the study included measuring progression-free survival, duration of response, overall patient survival and safety parameters. Patients were evaluated regularly for tumor response according to RECIST criteria.

About Breast Cancer The World Health Organization reports that breast cancer is the most commonly diagnosed cancer in women and is second only to lung cancer as a leading cause of female cancer deaths. The National Cancer Institute estimates that approximately 192,370 U.S. women will be diagnosed with breast cancer in 2009 and 40,170 women will die of the disease in the U.S. alone.

Poster at ASCO - Saturday, June 5, 2010, 2:00 - 6:00 pm CT Phase II study of bavituximab plus paclitaxel and carboplatin in locally advanced or metastatic breast cancer: Interim results (Abstract #1062), Author: Minish Jain, Poster Board 22G, S Hall A2

Peregrine will also have a booth (#19114) for the duration of the 2010 ASCO Annual Meeting.

For more information on the ASCO conference, visit <http://chicago2010.asco.org/Home.aspx>.

About Peregrine Pharmaceuticals Peregrine Pharmaceuticals, Inc. is a clinical-stage biopharmaceutical company with a

portfolio of innovative monoclonal antibodies in development for the treatment of cancer and serious viral infections. 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. (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 results from larger clinical trials will not be consistent with results experienced in earlier clinical trials and preclinical studies, the risk that the company may experience delays in patient enrollment for the planned Phase IIb clinical trials, and risk that results may not support registration filings with the U.S. Food and Drug Administration. 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, 2009 and the quarterly report on Form 10-Q for the quarter ended January 31, 2010. 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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