April 4, 2012

Promising Clinical Data in Breast and Liver Cancers Further Expand the Broad Therapeutic Potential of Peregrine's Bavituximab

Additional Preclinical Prostate Cancer Data Indicates Potent Immune Stimulation by PS-Targeting Antibodies Resulting in a 40% Cure Rate

TUSTIN, CA -- (Marketwire) -- 04/04/12 -- Peregrine Pharmaceuticals, Inc. (NASDAQ: PPHM), a clinical-stage biopharmaceutical company developing first-in-class monoclonal antibodies for the treatment and diagnosis of cancer and infectious diseases, today highlighted positive data from two Phase I investigator-sponsored trials (IST) and one preclinical study at the 2012 Annual Meeting of the American Association for Cancer Research (AACR) evaluating the potential of bavituximab when combined with standard approved therapies in breast, liver and prostate cancers.

In a Phase I trial of bavituximab with paclitaxel in five evaluable patients with HER-2 negative metastatic breast cancer(1), two patients achieved a complete tumor response, one achieved a partial response, and two had progressive disease according to Response Evaluation Criteria In Solid Tumors (RECIST) measurement criteria. The trial is also investigating the dynamics and potential effects of circulating tumor cells (CTC) and microparticles shed from dying tumor cells for possible correlations with therapeutic response. For further information about this trial, please visit http://www.peregrinetrials.com, or http://www.clinicaltrials.gov/ct2/show/NCT01288261?term=bavituximab&rank=7.

"Investigator-sponsored trials provide us with an efficient and cost-effective opportunity to evaluate bavituximab in an expanded range of potential therapeutic indications and treatment combinations. We are pleased with the data generated to date in these ISTs in breast and liver cancer and look forward to additional data from the studies as more patients are enrolled and follow-up continues," said Joseph Shan, vice president of clinical and regulatory affairs of Peregrine.

In a second poster presentation(2), clinical investigators presented data from a Phase I/II trial investigating bavituximab with sorafenib in patients with advanced hepatocellular carcinoma (liver cancer). Of the nine patients enrolled in the phase I portion of the study, no dose-limiting toxicities or serious adverse events were observed and the trial is now enrolling in the phase 2 part of the study.

"Sorafenib has been shown to increase the exposure of bavituximab's PS target on tumor blood vessel cells, and combination therapy with the two agents has shown synergistic efficacy in preclinical models," said Adam Yopp, the lead investigator of the trial. "As the only approved therapy for advanced liver cancer, attempts have been made to extend survival in this patient population by combining sorafenib with common anti-angiogenesis drugs, but unfortunately these drug combinations have resulted in unacceptable toxicities. We are excited by the promising safety profile to date in our bavituximab trial, and look forward to reporting on potential anti-tumor effects observed in this IST at a future oncology conference."

For further information about this trial, please visit http://www.peregrinetrials.com, or http://www.clinicaltrials.gov/ct2/show/NCT01264705?term=bavituximab&rank=10.

In a third poster presentation(3), researchers presented data showing robust anti-tumor responses in a challenging preclinical prostate cancer model when an animal version of bavituximab was combined with androgen deprivation therapy (ADT).

"Using the TRAMP model of prostate cancer in which mice are genetically engineered to continually generate prostate cancer, the combination regimen of bavituximab with ADT remarkably resulted in complete inhibition of cancer in roughly 40% of the animals, preventing tumor growth until the animals died of old age," said Philip Thorpe, Ph.D., senior author of the study and scientific advisor to Peregrine. "These results support PS as a fundamentally immunosuppressive molecule, the blocking of which with PS-targeting antibodies can help facilitate robust immune responses to cancer."

Presentation Details

1. Presentation Title: Microparticle generation and activation after treatment with paclitaxel and bavituximab combination therapy in metastatic breast cancer
Presentation Time: Tuesday, Apr 03, 2012, 1:00 PM - 5:00 PM
Location: McCormick Place West (Hall F), Poster Section 19
Poster Board Number: 21

Authors: Marilyn T. Marron, Pavani Chalasani, Daniel Camacho, Maria Iannone, Kathy Schmidt, Alison Stopeck. Univ. of Arizona, Tucson, AZ

2. Presentation Title: A phase I study of bavituximab and sorafenib in patients with advanced hepatocellular carcinoma (HCC)
Presentation Time: Wednesday, Apr 04, 2012, 8:00 AM - 12:00 PM
Location: McCormick Place West (Hall F), Poster Section 28
Poster Board Number: 9
Authors: Adam Yopp, Yull Arriega, Amit Singal, John Mansour, Glen Balch, Phillip Thorpe. UT Southwestern Medical Center, Dallas, TX

3. Presentation Title: Cure of castration-resistant prostate cancer in TRAMP mice by reactivating tumor immunity with a phosphatidylserine-targeting antibody
Presentation Time: Tuesday, Apr 03, 2012, 1:00 PM - 5:00 PM
Location: McCormick Place West (Hall F), Poster Section 19
Poster Board Number: 12
Authors: Yi Yin, Xianming Huang, Gustavo Barbero, Dan Ye, Philip E. Thorpe. UT Southwestern Medical Ctr., Dallas, TX

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 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. Bavituximab is currently being tested in 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.

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 sorafenib, paclitaxel or ADT will not be consistent with the data from the current investigator-sponsored trials, and the risk that Peregrine may not have or raise adequate financial resources to complete the planned clinical programs or support registration filings with the FDA, 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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