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Data To Be Presented at ASCO Supports Potential of Peregrine's Cotara(R) for the Treatment of Brain Cancer

-Study Results Show 100-Fold More Radiation Delivered to Tumor as Compared to Other Organs--All Patients Surpassed Expected Median Survival Time at Lowest Planned Dose Level-

CHICAGO and TUSTIN, Calif., May 31, 2008 /PRNewswire-FirstCall via COMTEX News Network/ -- Peregrine Pharmaceuticals, Inc. (Nasdaq: PPHM) today reported that clinical researchers from the Abramson Cancer Center of the University of Pennsylvania will present data showing that its brain cancer agent Cotara(R) specifically localizes to brain tumors at high concentrations with minimal radiation exposure to other organs. Cotara is a targeted monoclonal antibody linked to a radioisotope being developed as a potential new treatment for glioblastoma multiforme (GBM), a deadly form of brain cancer. Cotara specifically targets cells at the center of brain tumors, so its radioactive payload is able to kill cancer cells while leaving healthy tissue largely unaffected. The study results show that the concentration of Cotara in brain tumors was at least 100-fold higher than in other organs, and all of the GBM patients in the study cohort discussed in this presentation have surpassed the expected median six-month survival time for this patient population.

No dose-limiting toxicities were reported in this dosimetry study, confirming other clinical data showing that Cotara appears to have a good safety profile. The Cotara data will be presented on Sunday at the 44th American Society of Clinical Oncology (ASCO) Annual Meeting in Chicago, Illinois.

"These findings confirming Cotara's potential to target its radioactive payload to brain tumors while minimizing radiation exposure to healthy organs have enabled us to advance this Cotara trial to the next stage," said Dr. Kevin Judy, associate professor neurosurgery at the University of Pennsylvania School of Medicine and a principal investigator of the Cotara dosimetry trial. "Cotara's good safety profile to date is especially encouraging in view of the toxicity of the treatment options currently available to GBM patients. We look forward to further assessing its safety and anti-tumor activity at the higher doses we plan to use in the next stages of the trial."

The open label dose confirmation and dosimetry study at U.S. brain cancer centers is enrolling GBM patients with recurrent disease. Patients in this trial receive an initial imaging dose of Cotara before receiving the therapeutic dose.

"These positive data validate a key principle underlying the Cotara program, confirming its ability to specifically concentrate in and deliver a high radiation dose to brain tumors," said Steven W. King, president and CEO of Peregrine. "These results also further confirm the key targeting attribute of Cotara, showing it results in minimal radiation exposure to other organs, including the thyroid. We also are encouraged that patients in this initial, low-dose cohort have already lived longer than the expected median survival time for GBM patients at first relapse, and we look forward to reporting further data on Cotara in the coming months."

The dosimetry study's main objectives are to confirm the maximum tolerated dose of Cotara, to determine radiation dosimetry and to assess overall patient survival, progression-free survival and the proportion of patients alive at six months following Cotara administration. In addition to the University of Pennsylvania Medical Center, the Medical University of South Carolina in Charleston and the Barrow Neurological Institute in Phoenix, Arizona are participating in the trial. A fourth study site was recently initiated at Case Western Reserve University in Cleveland, Ohio. Peregrine is also conducting a Cotara Phase II safety and efficacy trial in India in GBM patients at first relapse. In patients treated to date, Cotara appears to be safe and well tolerated.

About Cotara(R)

Cotara is an experimental treatment for brain cancer that links a radioactive isotope to a targeted monoclonal antibody. This monoclonal antibody is designed to bind to a type of DNA that is exposed only on dead and dying cells, and solid tumors have many dead and dying cells at their center. Cotara's targeting mechanism enables it to home in on these cells, delivering its radioactive payload directly to the center of the tumor mass and thereby destroying it "from the inside out," with minimal radiation exposure to healthy tissue. Cotara is delivered using convection-enhanced delivery (CED), an NIH-developed method which targets the specific tumor site in the brain. In a previous clinical study, a subset of patients with recurrent glioblastoma treated with Cotara achieved a median survival of 38 weeks, a 58% increase over the median survival time of 24 weeks for patients treated with standard of care therapy. In this study, 25% of 28 recurrent patients survived for more than a year post-

treatment and 10% of patients survived for more than three years. These data are considered a promising development in this deadly disease. Cotara has been granted orphan drug status and fast track designation for the treatment of glioblastoma multiforme and anaplastic astrocytoma by the U.S. Food and Drug Administration. Cotara is in a Phase I dosimetry trial in GBM patients in the U.S. and a Phase II safety and efficacy trial in GBM patients in India. For more information on the U.S. clinical trials, visit www.clinicaltrials.gov

Poster Number: 5B, Abstract No: 2072: S. Shen, R. Lustig, K.D. Judy, J.B. Fiveash, J. S. Shan, "Open-label, dose confirmation and dosimetry study of Interstitial I 131 I-chTNT-1/ B MAB for the treatment of recurrent glioblastoma multiforme (GBM)." Sunday, June 1, 2008 2:00 PM - 6:00 PM CDT.

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 forwardlooking statements involve risks and uncertainties including, but not limited to, the risk that dose-limiting toxicities may be experienced in future stages of the trial which will use higher doses of Cotara. 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 guarterly report on Form 10-Q for the guarter ended 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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