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## **Glioblastoma Multiforme Data From Peregrine's Novel Brain Cancer Therapy Cotara(R) to Be Reported at ASCO**

### **Enrollment Over 75% Complete in Recently Expanded Phase II Trial in Recurrent GBM**

TUSTIN, CA, Jun 03, 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 data to be presented on June 6, 2010 at the ASCO Annual Meeting from a Phase I trial of Cotara (R) in patients with relapsed glioblastoma multiforme (GBM), the deadliest form of brain cancer. Cotara is a targeted monoclonal antibody linked to a radioisotope that is administered directly into the tumor, destroying the tumor from the inside out, with minimal exposure to healthy tissue. Final data from this dose confirmatory and radiation dosimetry trial confirm Cotara's targeting capabilities, delivering 300-fold higher radiation levels to the tumor than to normal organs.

"A unique approach to treating brain cancer, Cotara localizes to brain tumors with minimal exposure to surrounding tissue," commented William R. Shapiro, M.D., principal investigator of the study and chief of Neuro-Oncology at The Barrow Neurological Institute at St. Joseph's Hospital. "The Phase I study demonstrates the most effective dose appears safe to administer using dual catheter convection-enhanced delivery. Since brain tumors are typically not spherical in shape, using two catheters to deliver Cotara may enhance anti-tumor effects, as this approach shows potential for improved drug coverage within irregularly shaped tumors."

Stephen W. King, president and chief executive of Peregrine Pharmaceuticals, commented, "Verifying the safety and localization of Cotara's optimal dose using dual catheter administration further supports the dose administration protocol of our ongoing Phase II GBM trial. Enrollment is over 75% complete and we recently opened three additional U.S. sites to enroll the last of the 40 planned patients in this trial. We continue to monitor patient survival in this open-label trial and plan to report interim data once mature as we aim to complete this trial before the end of the year."

About Peregrine's Ongoing Phase II Trial Peregrine's ongoing Phase II open-label trial is enrolling up to 40 recurrent GBM patients at seven sites in the U.S. and India. The primary endpoint is safety and tolerability of the maximum tolerated dose, a single 25-hour interstitial infusion of 2.5 mCi/cc of Cotara. Secondary endpoints include overall survival, progression free survival, and proportion of patients alive at six months after treatments. For additional information, visit <http://www.clinicaltrials.gov/ct2/show/NCT00677716?term=Cotara&rank=1>.

About Peregrine's Phase I Trial with Data Reported at ASCO The Phase I, open-label, dose confirmatory and radiation dosimetry trial was conducted in three U.S. centers. The primary objective was to confirm the dose limiting toxicities and maximum tolerated dose of Cotara administered as a single 25-hour interstitial infusion in patients with recurrent GBM. Final data confirm Cotara's targeting capabilities, delivering 300-fold higher radiation levels to the tumor than to normal organs. Median radiation dose to the tumor was 573 cGy/mCi.

Twelve patients with recurrent GBM were enrolled in this study with the first receiving an imaging dose (3 mCi) of Cotara infused via 2 interstitial catheters. Two to four weeks after imaging, patients were eligible to receive a single therapy dose of Cotara at 1.5, 2.0 or 2.5 mCi/cc using a "3+3" dose escalation scheme. Dose escalation was permitted after a six week observation period. Ten patients received a therapy dose, including 8 of the 10 imaging patients. Cotara was generally well tolerated in this study, with one dose-limiting toxicity of cerebral edema reported at the high dose of 2.5 mCi/cc. Cotara's excellent localization only in the tumor with minimal systemic radiation was demonstrated by images acquired up to 168 hours after therapy.

About Brain Cancer There are an estimated 21,810 new cases of brain cancer diagnosed annually and this cancer accounts for approximately 13,070 deaths annually in the U.S. The most common type of brain cancer is glioblastoma multiforme (GBM), which accounts for 60% of all brain tumors. An aggressive form of cancer, GBM is the deadliest form of brain cancer, with a five-year survival rate of only 3%.

About Cotara Cotara is an experimental treatment for brain cancer that links a radioactive isotope to a targeted monoclonal antibody designed to bind to the DNA histone complex that is exposed by dead and dying cells found at the center of solid tumors. Cotara's targeting mechanism enables it to bind to the dying tumor cells, delivering its radioactive payload to the adjacent living tumor cells and essentially destroying the tumor from the inside out, with minimal radiation exposure to healthy

tissue. Cotara is delivered using convection-enhanced delivery (CED) that targets the specific tumor site in the brain. In brain cancer studies, Cotara has demonstrated encouraging patient survival data and a Phase II GBM trial is currently ongoing. Cotara has been granted orphan drug status and fast track designation for the treatment of GBM and anaplastic astrocytoma by the U.S. Food and Drug Administration.

Cotara is currently being evaluated for recurrent GBM patients in a Phase II trial, which was expanded recently with additional U.S. sites. To date, more than 100 recurrent GBM patients have received Cotara and localization and accumulation of the drug to the tumor have been excellent. Longer-term survivors of greater than one year from the time of Cotara treatment have been observed in all of the trials. Some patients are still alive more than 9 years after treatment with Cotara in earlier studies.

Poster at ASCO -- Sunday, June 6, 2010, 8:00 am - 12:00 pm CT

Open-label, dose confirmation, and dosimetry study of Cotara for the treatment of recurrent GBM: Final results (Abstract #48393), Author: William R. Shapiro, Poster Board 1G, 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](http://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](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 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 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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