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Tarvacin(TM) Equivalent (3G4) Plus Radiation Reduces Lung Tumor Growth By Over 95%

Additional presentations at AACR show significant potential for Tarvacin™

in combination with chemotherapy or radiation therapy

TUSTIN, Calif., April 18 /PRNewswire-FirstCall/ -- Peregrine Pharmaceuticals Inc. (Nasdaq: PPHM) reported that data will be presented at the American Association for Cancer Research (AACR) Annual Meeting in Anaheim, California today related to Tarvacin™, its lead Anti-Phospholipid Therapy agent. The data to be presented shows that 3G4, the mouse version of Tarvacin™, is active against a number of solid tumors including lung, prostate, pancreatic, fibrosarcoma and breast cancers given as a single agent or in combination with either chemotherapy or radiation therapy. In a pre-clinical lung cancer model, the combination of 3G4 plus radiation therapy inhibited tumor growth by over 95% and 3G4 alone decreased tumor growth by 62%. In pancreatic pre-clinical tumor therapy experiments, 3G4 plus the chemotherapeutic agent gemcitabine decreased primary tumor growth by 60% and essentially stopped metastasis to liver and lymph nodes.

"These pre-clinical data in a variety of tumor types are extremely valuable since our phase I clinical trial for Tarvacin™ allows inclusion of patients with any solid tumor type." said Steven King, president and CEO of Peregrine Pharmaceuticals. "In particular, pre-clinical results investigating different combinations of Tarvacin™ with standard cancer therapies should prove especially helpful in guiding the clinical program." Peregrine expects to begin patient enrollment in the Tarvacin™ phase I clinical trial within the next 30 days."

Three presentations at AACR related to Peregrine's Tarvacin program include:

* "Inhibition of pancreatic tumor growth and metastasis in mice by targeting inside-out phospholipids on tumor vasculature." (Abstract # 3014, April 18, 1:00 PM - 5:00 PM) In a mouse model of metastatic pancreatic cancer, Peregrine's anti-phospholipid antibody 3G4 (a murine equivalent of the clinical candidate Tarvacin™) slowed growth of the primary tumor, while combination therapy with gemcitabine resulted in significant reductions in final pancreas weight (P<0.05). Even more strikingly, 3G4 alone reduced metastatic burden in liver, lymph nodes, and peritoneum significantly (P<0.05) as compared to. control or gemcitabine-alone treated mice, and combination therapy reduced metastases by more than 80% compared to control or gemcitabine treated mice, with no additional toxicity.
* "Targeting phosphatidylserine on irradiated tumor vasculature." (Abstract # 2373, April 18, 8:00 AM - 12:00 PM) When used in combination with irradiation, Peregrine's anti-phospholipid antibody 3G4 (a murine equivalent of Tarvacin™) essentially inhibited tumor growth completely in mouse models of human lung cancer.
* "The mechanisms of the antitumor effects of antiphospholipid antibody, 3G4." (Abstract # 2996, April 18, 1:00 PM - 5:00 PM) Using MDA-MB-231 human breast tumor cells as targets, the researchers demonstrated that 3G4 induces antibody-dependent cellular cytotoxicity (ADCC) but not complement-dependent cytotoxicity (CDC) by a variety of rodent effector cells. 3G4 also significantly enhanced macrophage phagocytosis of apoptotic Jurkat cells. More importantly, TNF. production of macrophages was significantly increased and TGF. secretion significantly decreased by 3G4-mediated phagocytosis. Therefore, 3G4 significantly inhibited the anti-inflammatory effect of macrophages phagocytosing apoptotic cells. Taken together, the results suggest that ADCC and 3G4-mediated pro-inflammatory cytokine production may play important roles in the antitumor effect of 3G4 in vivo.

About Peregrine Pharmaceuticals

Peregrine Pharmaceuticals, Inc. is a biopharmaceutical company with a broad portfolio of products under development directed towards the treatment of cancer, viruses and other diseases. The company plans to initiate patient enrollment in two separate clinical trials for the treatment of all solid tumors using Tarvacin™ (under its Anti-Phospholipid Therapy platform) and for the treatment of brain cancer using Cotara® (under its Tumor Necrosis Therapy platform). Our agents in development for oncology applications fall under several different proprietary platforms, including Anti-Phospholipid Therapy, Vascular Targeting Agents (VTAs), Tumor Necrosis Therapy (TNT), Anti-Angiogenesis, and Vasopermeation Enhancement Agents (VEAs). Our viral therapy approach is based on the fact that enveloped viruses and virally infected cells have phospholipids exposed on their surface and thus can be targeted using our Anti-Phospholipid Therapy agents.

Peregrine Pharmaceuticals also has in-house expertise to develop and manufacture antibodies and recombinant proteins through its wholly-owned subsidiary, Avid Bioservices, Inc., (http://www.avidbio.com). Avid is engaged in providing contract manufacturing services and development of biologics for biopharmaceutical and biotechnology companies, including Peregrine.

Copies of Peregrine Pharmaceuticals press releases, SEC filings, current price quotes and other valuable information for investors may be found at http://www.peregrineinc.com

Statements in this press release which are not purely historical, including statements regarding Peregrine Pharmaceuticals' intentions, hopes, beliefs, expectations, 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, which include statements with respect to the potential therapeutic benefits, both alone and in combination with other treatment methodologies, and successful development of drug candidates, involve risks and uncertainties including, but not limited to, the risks and uncertainties detailed from time to time in the Company's filings with the Securities and Exchanges Commission, including its Annual Report on Form 10-K for the year ended April 30, 2004, and its quarterly report on Form 10-Q for the quarter ended January 31, 2005. 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 pre-clinical 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, pre-clinical studies or clinical trials; our ability to obtain additional financing to support our operations and the development of our products; our ability to obtain regulatory approval for our technologies; the timing of regulatory filings and the potential success in gaining regulatory approval and complying with governmental regulations applicable to our business. 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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