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Peregrine's Anti-Angiogenesis Agent Inhibits Growth of Blood Vessels by up to 85% in Breast Cancer Tumor Metastases

Pre-clinical Data Presented at American Association of Cancer Research Annual Meeting

TUSTIN, Calif., March 30 /PRNewswire-FirstCall/ -- Peregrine Pharmaceuticals, Inc. (Nasdaq: PPHM) announced today presentation of data at the American Association of Cancer Research annual meeting showing that Peregrine's 2C3 antibody significantly inhibited the growth of blood vessels in a metastatic breast cancer tumor model. Peregrine's 2C3 antibody works by inhibiting a key tumor blood vessel growth factor known as Vascular Endothelial Growth Factor (VEGF) from inducing the formation of blood vessels in solid tumors. The 2C3 antibody is part of Peregrine's anti-angiogenesis compound family under development for the treatment of cancer and other diseases dependent on aberrant blood vessel formation.

In order for solid tumors such as breast cancer to grow, they must form a blood vessel network that delivers blood to the tumor and carries blood away from the tumor. The spread of breast cancer to other organs (metastasis) preferentially occurs through lymphatic blood vessels that carry blood from the tumor. The results presented showed that 2C3 therapy "significantly suppressed the formation of both blood-transporting vessels and lymphatic vessels by 70% and 85%, respectively." This study further indicates the potential of the 2C3 platform for treating cancer in humans.

VEGF is a potent growth factor that plays a role in a number of normal processes including blood vessel formation (angiogenesis) and immune system regulation. The 2C3 antibody selectively blocks VEGF binding to one of its two key receptors, VEGF receptor 2, without blocking binding to VEGF receptor 1. VEGF binding to VEGF receptor 2 is the primary signal involved in new blood vessel formation, including tumor angiogenesis. VEGF binding to VEGF receptor 1 is believed to be involved in normal VEGF-mediated processes such as immune system function. Anti-angiogenesis agents that selectively block the blood vessel growth function of VEGF without blocking other VEGF-mediated functions may have safety advantages over VEGF inhibition strategies that block all VEGF functions.

About Peregrine Pharmaceuticals, Inc.

Peregrine's research and development efforts focus on discovering and developing products that affect blood flow to tumors. Peregrine's vascular research programs fall under several different proprietary platforms including Anti-Phospholipid Therapy (APT), Vascular Targeting Agents (VTAs), anti- Angiogenesis and Vasopermeation Enhancement Agents (VEAs). The company has research collaborations with pharmaceutical and biotechnology companies to develop its VTA platform for therapeutic and diagnostic applications and expects to enter its first APT compound into clinical trials for cancer therapy during calendar year 2004.

Peregrine's vascular agents may also have applications in other angiogenesis-dependent diseases besides cancer such as diabetes, arthritis, skin disorders and eye diseases. Peregrine currently has exclusive rights to over 190 U.S. and foreign patents and patent applications that broadly cover its vascular programs. In addition, the company is currently evaluating its proprietary targets for use in treating non-angiogenesis dependent diseases such as viral infections. The company believes that the pre-clinical data generated by the company and the broad nature of its intellectual property may provide many opportunities for product development, partnering and licensing.

Peregrine's most clinically advanced therapeutic program is based on a targeting platform outside vascular biology. This technology platform is known as Tumor Necrosis Therapy (TNT) and targets dead or dying tumor cells that are common to the majority of different tumor types. Cotara™, the most clinically advanced TNT program, is currently in a Phase I clinical trial for the treatment of colorectal carcinoma at Stanford University Medical Center. In addition, we have received protocol approval from the U.S. Food and Drug Administration ("FDA") to initiate a registration clinical study for the treatment of brain cancer. The company is currently seeking a development or funding partner to move the brain cancer program forward. The company believes that continuing the clinical development of Cotara™ in tumor types other than brain cancer will add significant value t the program. The company has a research collaboration to develop immunocytokines based on the TNT platform and a TNT based agent has been developed and approved for the treatment of lung cancer in China under a licensing agreement.

The company also operates a cGMP contract manufacturing facility for monoclonal antibodies and recombinant proteins through its wholly owned subsidiary Avid Bioservices, Inc. (www.avidbio.com). Avid produces clinical trial materials to support

Phase I through Phase III clinical trials for biotechnology companies including Peregrine. Copies of Peregrine press releases, SEC filings, current price quotes and other valuable information for investors may be found on the website www.peregrineinc.com.

Safe Harbor Statement: This release may contain certain forward-looking statements that are made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Actual events or results may differ from the company's expectations as a result of risk factors discussed in Peregrine's reports on file with the U.S. Securities and Exchange Commission, including, but not limited to, Peregrine's report on Form 10-Q for the quarter ended January 31, 2004 and on Form 10-K for the year ended April 30, 2003.

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