May 18, 2004

# Review of Peregrine's Anti-Phospholipid Therapy Program Presented at Second International Conference on Vascular Targeting

Peregrine's APT & Docetaxel Combination Therapy Inhibits
Human Breast Cancer Growth by 93% in Pre-Clinical Studies

TUSTIN, Calif., May 18 /PRNewswire-FirstCall/ -- Peregrine Pharmaceuticals, Inc. (Nasdaq: PPHM) announced today that a researcher from the University of Texas Southwestern Medical Center at Dallas (UT Southwestern) presented a review of previously published data related to Peregrine's Anti-Phospholipid Therapy (APT) program at the Second International Conference on Vascular Targeting. In the talk titled "Anti- Phosphatidylserine Monoclonal Antibody, 3G4, Enhances the Anti-Tumor Effects of Docetaxel Against Human Breast Cancer," data was presented showing that the anti-phospholipid antibody 3G4 significantly enhances the effectiveness of chemotherapy. In pre-clinical data reviewed, breast cancer tumors were treated with a combination of 3G4 and docetaxel, which is among the most widely used chemotherapy agents to treat breast cancer. Combination therapy using 3G4 and docetaxel resulted in 93% inhibition of human breast cancer growth as compared with 68% and 60% in groups treated with docetaxel or 3G4 alone in pre-clinical models. Therapy with 3G4 alone was very well tolerated and did not enhance toxicities seen with docetaxel alone.

Additional data was presented which demonstrated that combination therapy using anti-PS antibodies and docetaxel in mouse tumor models inhibited not only the growth of orthotopic human breast cancer (breast cancer cells growing in mammary tissue), but also the establishment and growth of disseminated tumors in the lungs and liver. Combination therapy decreased tumor burden in the liver and lungs by more than 90%, as compared with 45% and 56% decrease for 3G4 and docetaxel alone, respectively. These results again indicated that combination therapy including 3G4 significantly improved the effectiveness of docetaxel without additional toxicity.

Peregrine has generated a chimeric 3G4 clinical candidate that it is developing under the trade name Tarvacin™. Tarvacin part of Peregrine's APT program and is expected to enter human clinical studies for the treatment of cancer later this year. Additional information regarding Peregrine's APT program, Tarvacin™ the above discussed data and other useful information can be found on Peregrine's recently released website at http://www.peregrineinc.com .

About Phosphatidylserine (PS)

PS is an aminophospholipid or anionic phospholipid. The main function of phospholipids is the formation of cellular membranes. In normal cells, anionic phospholipids are on the inside of the cellular membrane. Exposure of anionic phospholipids on the cell surface occurs during apoptosis (normal cell death), necrosis, cell injury, cell activation and malignant transformation. Factors in the tumor microenvironment cause a breakdown of asymmetry and exposure of anionic phospholipids on the cell surface of the blood vessel and malignant cells.

Anionic phospholipids are attractive as tumor blood vessel targets for several reasons: they are abundant; they are on the surface of the endothelial cells that line tumor vessels that are accessible to VTAs in the blood; they are present on a significant percentage of endothelial cells in diverse solid tumors, and they appear to be absent from vascular endothelium in all normal tissues.

Peregrine has developed an anti-phosphatidylserine (PS) monoclonal antibody named 3G4. When injected into tumor-bearing mice, 3G4 localizes specifically to tumor endothelium. In pre-clinical studies, 3G4 alone significantly inhibits tumor growth in a variety of rodent tumor models. Up to 50% regressions have been seen in syngeneic and human tumors, including human breast carcinomas.

Anti-PS antibodies may also have uses as anti-viral agents. Anti-PS drugs operate on a new principle in virology. When enveloping viruses egress from a host cell after replication, many capture some of the lipids of the host cell for use as their outer membrane. Lacking the natural mechanism for properly aligning the lipids, the outer membranes of these viruses have lipids that are inside-out. The anti-PS antibodies direct the immune responses to the inside- out components of the viral membrane, or envelope. These drugs could potentially be effective against numerous viruses that have similar outer membranes.

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 technology 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 http://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.


Peregrine Investor Relations
Frank Hawkins and Julie Marshall
Hawk Associates, Inc.
(800) 987-8256 or
info@hawkassociates.com



SOURCE Peregrine Pharmaceuticals, Inc.
-0- 05/18/2004
/CONTACT: Investor Relations, Frank Hawkins and Julie Marshall, both of Hawk Associates, Inc., +1-800-987-8256, or e-mail, info@hawkassociates.com , for Peregrine Pharmaceuticals, Inc./
/Web site: http://www.peregrineinc.com /
(PPHM)
CO: Peregrine Pharmaceuticals; University of Texas Southwestern Medical Center
ST: California
IN: BIO EDU MTC HEA
SU: SVY TDS WOM
MR-CH
-- FLTU012 --
2911 05/18/2004 10:01 EDT http://www.prnewswire.com