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## **Data Presented at AACR Annual Meeting Show Anti-Tumor Activity of Peregrine's Fully Human Anti-PS Antibody in Prostate Cancer Model**

### **-- --Preclinical Results Further Validate Significant Anti-Tumor Potential of Fully Human Anti-PS Antibodies and Expand the Company's PS-Targeting Platform- --Treatment with Mouse Equivalent to the Human Antibody Inhibited Tumor Growth in a Prostate Cancer Model by More than 90%--**

DENVER and TUSTIN, Calif., April 22, 2009 /PRNewswire-FirstCall via COMTEX News Network/ -- Peregrine Pharmaceuticals, Inc. (Nasdaq: PPHM), a clinical stage biopharmaceutical company developing monoclonal antibodies for the treatment of cancer and serious virus infections, today announced that preclinical data presented during the AACR 100th Annual Meeting 2009 shows that one of its fully human phosphatidylserine (PS)-targeting antibodies demonstrated encouraging signs of efficacy in a preclinical model of prostate cancer. These positive new data validate the anti-tumor potential of this human anti-PS antibody, which is similar to Peregrine's lead clinical stage antibody bavituximab and extends Peregrine's anti-PS antibody pipeline. Bavituximab is in Phase II clinical trials for the treatment of advanced breast cancer and non-small cell lung cancer.

Peregrine's PS-targeting antibodies bind to the cellular membrane component PS that is usually located inside cells, but which becomes exposed on the external surface of the cells that line the blood vessels of tumors (the tumor vascular endothelium), creating a specific target for anti-cancer treatments. By binding to PS, the antibodies are believed to help mobilize the body's immune system to destroy the tumor and the tumor blood vessels.

In today's presentation, researchers from UT Southwestern Medical Center in Dallas and Affitech A/S reported that similar to bavituximab, the human antibody PGN635 targets and binds specifically to the tumor vascular endothelium(1). Treatment with androgen deprivation therapy or docetaxel substantially increased the percentage of tumor blood vessels with PGN635 binding.

The researchers also reported that in a mouse model of prostate cancer, treatment with a mouse-equivalent antibody of PGN635 significantly retarded the growth of tumors by more than 90%. These positive results reinforce the findings of previous preclinical studies with Peregrine's anti-PS antibodies that showed promising anti-tumor activity in combination regimens in models of prostate cancer.

"As our understanding of PS-targeting antibodies continues to increase, the availability of anti-PS antibodies that vary in their mode of binding or in their specific immunomodulatory activity broadens the potential clinical applications of our anti-PS technology platform," said Steven W. King, president and CEO of Peregrine. "Our collaboration with Affitech to generate fully human anti-PS antibodies has produced a number of antibodies with varying characteristics. We look forward to continuing to pursue both internal efforts and external collaborations to further explore the clinical potential of these promising development candidates."

The fully human PS-targeting antibody in this study was developed through Peregrine's collaboration with Affitech A/S. The studies were supported in part by a grant and a post-doctoral fellowship from the U.S. Department of Defense.

Peregrine's lead PS-targeting antibody bavituximab is currently in two separate Phase II combination therapy trials for the treatment of advanced breast cancer, one in combination with docetaxel and the other in combination with carboplatin and paclitaxel. A third Phase II trial in combination with carboplatin and paclitaxel is currently ongoing for the treatment of non-small cell lung cancer. A Phase I bavituximab monotherapy trial in advanced solid cancers is also continuing.

(1) Yi Yin, Anita Kavlie, Philip E. Thorpe. UT Southwestern Medical Center at Dallas, Dallas, TX, Affitech AS, Oslo, Norway. Fully human anti-phosphatidylserine antibody inhibits the growth of prostate cancer in mice. In: Proceedings of the 100th Annual Meeting of the American Association for Cancer Research; 2009 Apr 18-22; Denver, CO. Philadelphia (PA): AACR; 2009. Abstract nr 5463

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 serious virus infections. The company is pursuing three separate clinical programs in

cancer and hepatitis C virus infection with its lead product candidates baviximab 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>.

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