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## **Peregrine Pharmaceuticals Awarded Second Broad U.S. Patent for Anti-Viral Applications of Phospholipid-Targeting Antibodies**

**--Broad New Patent Covers Peregrine's Lead PS-Targeting Antibody Bavituximab and Similar Agents for the Treatment of All Viral Infections--**

**--New Patent Covers Applications under Active Development Including HCV Clinical Program and R&D Activities in Viral Hemorrhagic Fever, HIV, CMV and Other Life Threatening Viral Infections--**

TUSTIN, Calif., Nov. 4 /PRNewswire-FirstCall/ -- Peregrine Pharmaceuticals, Inc. (Nasdaq: [PPHMD](#) - [News](#)) today announced that the U.S. Patent and Trademark Office has issued U.S. Patent Number 7,611,704, which includes broad claims covering anti-viral uses of phosphatidylserine (PS)-targeting antibodies including Peregrine's lead clinical compound, bavituximab. PS is a unique marker exposed on the surface of virally infected cells that can be targeted to treat a broad spectrum of virus infections.

The new patent covers compositions and methods of treating virus infections using bavituximab and similar antibodies, either alone or as immunoconjugates attached to anti-viral agents, as well as in combination with other anti-viral agents. The breadth of the claims in the new patent is especially noteworthy since it includes methods for treating all viruses in humans and in animals. The therapeutic potential of these antibodies is supported by data in a landmark study published in the December 2008 edition of *Nature Medicine* showing that bavituximab and other PS-targeting antibodies have the potential to cure lethal virus infections across a broad range of virus families in animal disease models.

"This broad anti-viral patent further expands our intellectual property leadership in the field of PS-targeting antibodies at a time when our anti-viral program is experiencing a rising tide of interest and activity," said Steven W. King, president and CEO of Peregrine. "We are especially pleased at the scope of the issued claims in this new patent, which covers the use of bavituximab and similar antibodies in the treatment of any and all virus infections. Antibodies falling under the scope of this new patent have already demonstrated promising anti-viral activity in clinical trials in patients with hepatitis C virus (HCV) infection and are the focus of our ongoing research funded by a Transformational Medical Technologies Initiative contract to study the potential of these agents as broad spectrum viral hemorrhagic fever therapeutics."

PS, a lipid molecule normally found only on the inside of cell membranes, becomes exposed on the outside of the membranes of viruses and virally infected cells. A rapidly growing body of published scientific research confirms that exposed PS is directly involved in the pathogenesis of many serious infectious diseases. Exposed PS enables viruses to evade immune recognition and dampens the body's normal responses to infection. By masking the exposed PS, PS-targeting antibodies are believed to block these effects, allowing the body to develop a robust immune response to the pathogen.

Peregrine's PS-targeting antibodies have been shown to help clear infectious virus from the bloodstream and to induce antibody-dependent cellular cytotoxicity. PS is exposed on the outer membrane of cells infected with a wide range of viruses, including HIV, influenza, herpes simplex viruses, hemorrhagic fever viruses, cytomegalovirus (CMV), measles and members of the smallpox and rabies virus families. Targeting PS thus provides a broad platform for treating viral infections. Because the PS target is host-derived rather than pathogen-derived, PS-targeting antibodies are also expected to be much less susceptible to the viral genomic mutations that lead to anti-viral drug resistance.

Bavituximab, which is Peregrine's most advanced PS-targeting antibody, is currently being studied in a clinical trial for the treatment of patients co-infected with HCV and HIV. Phase I studies in HCV patients showed that bavituximab was well tolerated and it exhibited encouraging signs of anti-viral activity.

Under a major biodefense initiative funded by the Defense Threat Reduction Agency for the Transformational Medical Technologies Initiative (TMTI), bavituximab and similar antibodies are in preclinical development for the treatment of viral hemorrhagic fevers under a contract worth up to \$44.4 million. Peregrine's work on viral hemorrhagic fevers is completely funded by the TMTI under contract HDTRA1-08-C-0003.

This new patent was granted to The University of Texas System and is exclusively licensed to Peregrine Pharmaceuticals.

**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 HCV infection with its lead product candidates bavituximab and Cotara®. 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 bio-manufacturing 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 the Company will not receive the full \$44.4 million awarded under the TMTI program, the risk that bavituximab will not achieve broad-spectrum anti-viral effects and the risk that PS-targeting antibodies will not be less susceptible to viral mutations. 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 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 July 31, 2009. 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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