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Data Published in Nature Medicine Highlights Ability of Peregrine Pharmaceuticals' Bavituximab to Cure Lethal Virus Infections

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--PS-Targeting Antibodies May Represent a Completely New Class of Drugs with Broad Potential to Treat Life-Threatening Viral Infections--

--Peregrine's Clinical-Stage Anti-PS Agent Bavituximab and Equivalent Antibodies Cured Lethal Viral Infections in Preclinical Models--

--Data Confirms PS is a 'Druggable' Target Common to a Number of Serious Viral Infections--

Peregrine Pharmaceuticals, Inc. (Nasdaq: PPHM) today reported publication of data in Nature Medicine that supports the broad anti-viral potential of the company's novel anti-phosphatidylserine (anti-PS) antibody platform, showing that its PS-targeting drug bavituximab can cure lethal virus infections in animal disease models.

Bavituximab is in clinical trials for the treatment of hepatitis C virus (HCV) infection and in preclinical development for the treatment of viral hemorrhagic fevers under a contract worth up to $44.4 million with the bioterrorism program of the U.S. Defense Threat Reduction Agency (DTRA). Bavituximab and other anti-PS antibodies are also being studied preclinically in HIV, cytomegalovirus (CMV) and other serious viral infections.

"Based on these findings, anti-PS antibodies such as bavituximab may represent a completely new class of drugs for the treatment of life-threatening viral infections," said study co-author Dr. Philip Thorpe, professor of pharmacology at UT Southwestern Medical Center and a scientific advisor to Peregrine. "By targeting a property of the host cell rather than the virus itself, anti-PS antibodies have the potential to treat a range of viral infections, and they should be less susceptible to the viral mutations that contribute to the development of drug resistance."

In the research reported today, scientists at UT Southwestern assessed the activity of bavituximab in animal models of two lethal viruses --cytomegalovirus and Lassa fever virus, a hemorrhagic fever virus that is listed as a class A bioterrorism agent by the CDC. Bavituximab showed potent anti-viral activity in both models.

Dr. Melina Soares, lead study author and UT Southwestern instructor of pharmacology, commented, "Recent non-affiliated research has further confirmed that exposed PS has immunosuppressive properties and is also clarifying its involvement during viral infection of cells. Our data go a step further, providing compelling evidence that exposed PS itself is a promising anti-viral drug target that is involved in the pathogenesis of multiple viruses, suggesting the possibility of achieving broad-spectrum anti-viral effects using a single anti-PS agent. We look forward to further exploring the potential of bavituximab and other anti-PS antibodies against viruses for which there are few or no effective therapeutic options."

In the first study, 100% of mice infected with lethal murine CMV and treated with bavituximab recovered fully, while only 25% of control animals survived. In the second study, guinea pigs were infected with lethal Pichinde virus, which is a model virus for Lassa fever. Fifty percent of the bavituximab-treated group survived, while untreated animals all died. In this study, the anti-viral effect of bavituximab was further augmented by the addition of the standard of care drug ribavirin, with 63% of animals receiving the combination therapy surviving the potentially lethal infection.

"We are extremely pleased to see this research demonstrating the broad anti-viral potential of bavituximab and our anti-PS technology platform published in this highly regarded journal," said Steven W. King, president and CEO of Peregrine. "This new publication is the latest in a series of external validations of our anti-viral program. It follows a recently awarded federal government contract for assessment of anti-PS antibodies to treat viral hemorrhagic fevers, research on the role of PS in viral infections that was published in a leading science journal earlier this year, and a recent presentation on anti-PS antibodies at a global HIV conference."

Mr. King added, "Better prevention and treatment of viral diseases are urgently needed, and we are increasingly optimistic that bavituximab and our other anti-PS antibodies could be valuable contributors to the field."

PS is a lipid molecule normally found on the inside of cell membranes that "flips" and becomes exposed on the outside of the membranes of enveloped viruses and virally infected cells. Exposed PS enables viruses to evade immune recognition and dampens the body's normal responses to infection. By masking the exposed PS, bavituximab and other anti-PS antibodies may block these effects and allow the body to develop a robust immune response to the viral pathogen. Anti-PS antibodies have been shown to help clear infectious virus from the bloodstream and to induce antibody-dependent cellular cytotoxicity, an important anti-viral immune response.

Researchers have found that PS is exposed on the outer membrane of cells infected with HIV, influenza (including avian flu), herpes simplex viruses, hemorrhagic fever viruses, measles and members of the small pox and rabies virus families.

Dr. Barton Haynes, director of Duke University's Human Vaccine Institute and the Center for HIV/AIDS Vaccine Immunology (CHAVI) is currently investigating PS as a potential target for preventing HIV infection. He commented, "Targeting a host cell lipid such as PS as an anti-viral strategy is an intriguing concept that may have relevance for new therapeutic and possibly prophylactic innovations in a number of virus infections."

Peregrine's research assessing the therapeutic potential of anti-PS antibodies against hemorrhagic fever viruses was originally funded by a grant from the National Institutes of Allergy and Infectious Diseases (NIAID). The results discussed in today's study contributed in part to the June 2008 receipt by Peregrine of an award from the biodefense program of the DTRA, an agency of the U.S. Department of Defense, potentially worth up to $44.4 million over five years for the development of bavituximab and similar PS-targeting antibodies as potential therapies against hemorrhagic fever viruses.

The studies reported today were conducted by Drs. Melina Soares and Philip Thorpe and colleagues at UT Southwestern Medical Center and are published in the November 23, 2008 on-line edition and December 2008 published edition of Nature Medicine. For more information, visit http://www.nature.com/nm/index.html

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(R). Peregrine also has in-house manufacturing capabilities through its wholly owned subsidiary Avid Bioservices, Inc. (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.

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 results from further preclinical studies and clinical trials may not correlate to the initial preclinical results, the risk that bavituximab will not achieve broad-spectrum anti-viral effects and the risk that anti-PS 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, 2008 and the quarterly report on Form 10-Q for the quarter ended July 31, 2008. 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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