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Researchers Present Data Highlighting Potential of Peregrine's PS-Targeting Antibodies to Treat Ocular Herpes Infections and Macular Degeneration

Preclinical Data Further Expands Therapeutic Potential of PS-Targeting Platform

TUSTIN, CA -- (Marketwire) -- 05/10/12 -- Peregrine Pharmaceuticals, Inc. (NASDAQ: PPHM), a clinical-stage biopharmaceutical company developing first-in-class monoclonal antibodies for the treatment and diagnosis of cancer and infectious diseases, today announced that researchers have highlighted promising preclinical data at the 2012 Annual Meeting of the Association for Research in Vision and Ophthalmology (ARVO) investigating the potential of Peregrine's fully human PS-targeting antibodies, PGN632 and PGN635, to treat ocular herpes infections and macular degeneration, respectively.

In a poster presentation titled, Efficacious Outcome of an Ophthalmic Formulation of Phosphatidylserine- binding Monoclonal Antibody in a Rabbit Model of Acute HSV-1 Keratitis, academic researchers showed that the direct PS-binding antibody PGN632 is at least as efficacious as an approved therapy in reducing corneal scores and in minimizing ocular disease symptoms in an animal model of herpes infection of the eye. No visual toxicity was associated with the PGN632 antibody therapy.

"This is the first time our antibodies have been tested against HSV-1 in an established animal model. Data from this study further broadens the potential of our PS-targeting platform in the area of viral disease," said Cyril Empig, Ph.D., associate director, infectious diseases, at Peregrine. "With herpes simplex keratitis affecting approximately 450,000 people in the U.S. alone, 20,000 new cases diagnosed each year and with resistance to approved therapies increasing, our approach of targeting a non-mutatable host lipid molecule holds broad potential in this indication. We are pleased to see the high level of interest from the academic community in this promising application of our technology, and look forward to continuing collaborations to advance these studies to further assess PGN632 in this serious disease as well as other diseases caused by HSV-1 and HSV-2."

In a second poster presentation titled, Anti-phosphatidylserine Antibodies As A Potential New Therapy Against Choroidal Neovascularization, researchers demonstrated that in an animal model of age related macular degeneration, PS is exposed on the surface of new blood vessels in the retina, and that the PS-targeting antibody, PGN635, can significantly reduce the size of laser-induced choroidal neovascularization (CNV).

Philip Thorpe, Ph.D., senior author of the study and inventor of Peregrine's PS-targeting antibody technology commented, "While current therapies for age-related macular degeneration have brought an improvement in clinical outcomes, new retinal blood vessel growth remains active, multiple injections are needed for years and some patients are resistant to the current approved therapy or show a decrease in response to therapy over time. Data from these studies appear quite promising and we plan to advance the work into combination studies with the currently approved age-related macular degeneration therapy to investigate potential synergistic therapeutic effects."

Copies of posters presented are available at: http://ir.peregrineinc.com/events.cfm

About Herpes Simplex Keratitis

According to the National Eye Institute, herpes simplex keratitis is a leading cause of corneal opacification in the United States, other industrialized countries, and developing nations throughout the world. An estimated 450,000 people in the United States can develop recurrent episodes of the disease and about 46,000 episodes of HSV eye infection every year. Herpetic eye disease is the most common infectious cause of corneal blindness in this country.

About Age-Related Macular Degeneration (AMD)

According to the Macular Degeneration Association, age-related Macular Degeneration (AMD) is a disease of the retina that affects central vision and can lead to blindness in older people. AMD is the leading cause of legal blindness in Americans age 65 and older. As the population ages, AMD is becoming a more significant public health problem. Approximately 9.1 million people in the United States older than 40 suffer from AMD.

About Peregrine Pharmaceuticals

Peregrine Pharmaceuticals, Inc. is a biopharmaceutical company with a portfolio of innovative monoclonal antibodies in clinical trials for the treatment of cancer and serious viral infections. The company is pursuing multiple clinical programs in cancer and infectious diseases with its lead product candidate bavituximab and novel brain cancer agent Cotara®. Peregrine's lead PS-targeting candidate, bavituximab, is currently being evaluated in seven clinical oncology trials, with preliminary data from a double-blind Phase II trial in second-line non small-cell lung cancer patients expected in the second quarter. Peregrine also has in-house cGMP manufacturing capabilities through its wholly-owned subsidiary Avid Bioservices, Inc. (www.avidbio.com), which provides development and biomanufacturing 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 data presented with respect to the preclinical studies are not representative of the results that may be attained in future clinical trials and the risk that Peregrine may not have or raise adequate financial resources to complete the planned clinical programs. Factors that could cause actual results to differ materially or otherwise adversely impact the company's ability to obtain regulatory approval for its product candidates 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, 2011 and the quarterly report on Form 10-Q for the quarter ended January 31, 2012. 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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