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New Class of Anti-Cancer Agents Highlighted At First International Conference On Vascular Targeting

TUSTIN, Calif., Jun 13, 2002 (BW HealthWire) --

Peregrine's Novel Vascular Targeting Agent Shows Significant Anti-Cancer Activity in Pre-Clinical Studies

Peregrine Pharmaceuticals Inc. (Nasdaq:PPHM) today introduced a new type of Vascular Targeting Agent (VTA) at the First International Conference on Vascular Targeting in Cambridge, Massachusetts. Vascular targeting agents are designed to destroy existing tumor blood vessels in order to starve tumors. The new VTA is a "naked" (unmodified) monoclonal antibody directed against phosphatidylserine, a lipid target that becomes exposed on the walls of solid tumor blood vessels. Researchers demonstrated the antibody suppressed the growth of a variety of human and mouse solid tumors growing in mice and may be a promising anti-cancer candidate for clinical trials.

The new VTA was developed by Drs. Philip Thorpe, professor of pharmacology, and Sophia Ran, assistant professor of pharmacology, at the University of Texas Southwestern Medical Center at Dallas. Both scientists are consultants for Peregrine and developed the new VTA under a sponsored research agreement with the company. Dr. Thorpe is chairman of this week's International Conference on Vascular Targeting, where he and Dr. Ran are joined by many of the world's leading scientists in the fields of vascular targeting and anti-angiogenesis.

"The naked antibodies appear to suppress tumor growth by a combination of a vascular targeting action on tumor blood vessels and a direct anti-proliferative action on tumor endothelial cells and on the tumor cells themselves," said Dr. Ran. "This antibody's ability to attack the tumor by multiple mechanisms makes it an ideal anti-cancer drug candidate."

Dr. Thorpe added, "Naked antibodies can be readily produced as human antibodies for clinical studies. This could significantly decrease the time necessary to move this VTA into clinical trials."

"This important discovery adds yet another proprietary vascular targeting antibody to Peregrine's leading technology platform," said Edward Legere, president and CEO of Peregrine. "We are currently developing a fully human construct of this antibody that will be tested for suitability in human clinical studies as both a naked VTA and as a delivery agent for various effector molecules. Peregrine has developed a broad and extensive intellectual property position in Vascular Targeting, providing the opportunity to out-license exclusive and non-exclusive rights to our technology while maintaining the option to develop compounds in-house. We plan to license access to our VTA platform to other companies exploring this new field of cancer research."

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About Vascular Target Agents -- The Next Generation of Cancer
Therapy
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Virtually all detectable tumors rely on a vascular network to obtain oxygen and nutrients, and disruption of this network can have a devastating effect on a tumor. In pre-clinical animal studies, VTAs have shown to be potent anti-cancer agents that act by cutting off the supply of oxygen and nutrients to tumor cells by causing blood clots to form within the tumor's blood supply network. VTAs localize within the tumor vasculature by selectively binding to the flat endothelial cells that line tumor blood vessels. Once the VTA binds to its target, it initiates thrombosis (blood clotting) through a coagulation cascade, which leads to complete clotting of the tumor blood vessels within a matter of minutes. Because blockage of a single capillary results in the destruction of thousands of tumor cells, only a small quantity of VTAs localized in the tumor's vascular system may cause an avalanche of tumor cell death.

Vascular targeting agents offer several advantages as potentially powerful anti-cancer treatments. By targeting receptors unique to tumor cell vasculature, VTAs can kill tumors by cutting off oxygen and nutrients without causing damage to surrounding healthy tissue. Additionally, VTAs reduce the risk of potential side effects by operating at lower dosages than traditional cancer therapies because they do not need to penetrate the innermost layer of a tumor to take effect. Lastly, while drug resistance caused by the instability and mutability of cancer cells is a significant problem with conventional therapies that target tumor cells, cells targeted by VTAs do not mutate to become drug resistant.

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About Peregrine Pharmaceuticals, Inc.
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Peregrine Pharmaceuticals is a biopharmaceutical company focused on the development, commercialization, and licensing of unique technologies for the treatment of cancer, primarily based on its three "collateral targeting technologies." Peregrine's Tumor Necrosis Therapy (TNT), Vasopermeation Enhancement Agents (VEA), and Vascular Targeting Agents (VTA) target cell structures and cell types that are common among solid tumor cancers, giving them broad applicability across various tumor types. The company's lead TNT anti-cancer drug, Cotara™, is currently in a multi-center Phase II clinical trial for brain cancer and Phase I trials for colorectal, pancreas, liver, soft tissue sarcoma and biliary cancers. Final preparations are being made to start a multi-center, multi-national Phase III trial for brain cancer. Peregrine's Oncolym®, for the treatment of non-Hodgkin's B-cell lymphoma, is currently in a multi-center Phase I/II study. 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.

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