



## **VistaGen Licenses Breakthrough Stem Cell Culture Technology to Speed Development of Drug Screening and Cell Therapy for Immune System Disorders**

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SOUTH SAN FRANCISCO, CA -- (Marketwire) -- 04/16/12 -- VistaGen Therapeutics, Inc. (OTCBB: VSTA) (OTCQB: VSTA), a biotechnology company applying stem cell technology for drug rescue and cell therapy, has licensed breakthrough stem cell culture technology from the McEwen Centre for Regenerative Medicine located at the University Health Network (UHN) in Toronto, Canada.

VistaGen will be utilizing the licensed technology to develop hematopoietic precursor stem cells from human pluripotent stem cells, with the goal of developing drug screening and cell therapy applications for human blood system disorders. The breakthrough technology is included in a new United States patent application.

Hematopoietic precursor stem cells give rise to all red and white blood cells and platelets in the body. VistaGen will use the UHN invention to improve the cell culture methods used to efficiently produce hematopoietic stem cell populations.

"This technology dramatically advances our ability to produce and purify this important blood stem cell precursor for both in vitro drug screening and in vivo cell therapy applications," said H. Ralph Snodgrass, PhD, VistaGen's President and Chief Scientific Officer.

"In addition to defining new cell culture methods for our use, the technology describes the surface characteristics of stem cell-derived adult hematopoietic stem cells. Most groups study embryonic blood development from stem cells, but, for the first time, we are able to not only purify the stem cell-derived precursor of all adult hematopoietic cells, but also pinpoint the precise timing when adult blood cell differentiation takes place in these cultures," Snodgrass added. "It is our belief that these early cells will be the precursors of the ultimate adult, bone marrow-repopulating hematopoietic stem cells."

Bone marrow-derived hematopoietic stem cells are able to repopulate the blood and immune system when transplanted into patients prepared for bone marrow transplantation. These cells have important potential therapeutic applications for the restoration of healthy blood and immune systems in individuals undergoing transplantation therapies for cancer, organ grafts, HIV infections or for acquired or genetic blood and immune deficiencies.

### *About VistaGen Therapeutics*

VistaGen is a biotechnology company applying human pluripotent stem cell technology for drug rescue and cell therapy. VistaGen's drug rescue activities combine its human pluripotent stem cell technology platform, Human Clinical Trials in a Test Tube™, with modern medicinal chemistry to generate new chemical variants (Drug Rescue Variants) of once-promising small-molecule drug candidates. These are drug candidates discontinued due to heart toxicity after substantial development by pharmaceutical companies, the U.S. National Institutes of Health (NIH) or university laboratories. VistaGen uses its pluripotent stem cell technology to generate early indications, or predictions, of how humans will ultimately respond to new drug candidates before they are ever tested in humans, bringing human biology to the front end of the drug development process.

Additionally, VistaGen's small molecule drug candidate, AV-101, is in Phase 1b development for treatment of neuropathic pain. Neuropathic pain, a serious and chronic condition causing pain after an injury or disease of the peripheral or central nervous system, affects approximately 1.8 million people in the U.S. alone. VistaGen is also exploring opportunities to leverage its current Phase 1 clinical program to enable additional Phase 2 clinical studies of AV-101 for epilepsy, Parkinson's disease and depression. To date, VistaGen has been awarded over \$8.5 million from the NIH for development of AV-101.

Visit VistaGen at <http://www.VistaGen.com>, follow VistaGen at <http://www.twitter.com/VistaGen> or view VistaGen's Facebook page at <https://www.facebook.com/VistaGen>

### *Cautionary Statement Regarding Forward Looking Statements*

The statements in this press release that are not historical facts may constitute forward-looking statements that are based on current expectations and are subject to risks and uncertainties that could cause actual future results to differ materially from those expressed or implied by such statements. Those risks and uncertainties include, but are not limited to, risks related to regulatory approvals, the issuance and protection of patents and other intellectual property, the success of VistaGen's ongoing clinical studies, including the safety and efficacy of its drug candidate, AV-101, the failure of future drug rescue and pilot preclinical cell therapy programs related to VistaGen's stem cell technology-based Human Clinical Trial in a Test Tube™ platform, its ability to enter into drug rescue collaborations, risks and uncertainties relating to the availability of substantial additional capital to support VistaGen's research, development and commercialization activities, and the success of its research, development, regulatory approval, marketing and distribution plans and strategies, including those plans and strategies related to AV-101 and any drug rescue variants identified and developed by VistaGen. These and other risks and uncertainties are identified and described in more detail in VistaGen's filings with the Securities and Exchange Commission (SEC). These filings are available on the SEC's website at [www.sec.gov](http://www.sec.gov). VistaGen undertakes no obligation to publicly update or revise any forward-looking statements.

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