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VistaGen Secures Key U.S. Patent Covering Stem Cell Technology Methods Used to Test Drug Candidates for Liver Toxicity

SOUTH SAN FRANCISCO, CA -- (Marketwire) -- 04/25/12 -- VistaGen Therapeutics, Inc. (OTCBB: VSTA) (OTCQB: VSTA), a biotechnology company applying stem cell technology for drug rescue, has secured a new United States patent covering the company's proprietary methods used to measure and type the toxic effects produced by drug compounds in liver stem cells.

Test methods included in this new patent, (U.S. Patent 11/445,733), titled "Toxicity Typing Using Liver Stem Cells," cover all mammalian liver stem cells -- rat and mouse cells, for example, in addition to human cells. Liver stem cells used in drug testing can be derived from in vivo tissue or produced from embryonic stem cells (ES) or induced pluripotent stem cells (iPS).

H. Ralph Snodgrass, Ph.D., VistaGen's President and Chief Scientific Officer, said, "This patent covers the monitoring of changes in gene expression as an assay for predicting drug toxicities. It is well known that drugs activate and suppress specific genes, and that the changes in gene expression reflect the mechanism of drug toxicities. The specific sets of genes that are affected become a profile of that drug."

VistaGen's new patent also covers techniques used to develop a database of gene expression profiles of drugs that have the same type of liver toxicity. Using sophisticated "pattern matching" database tools, drug developers can analyze these related profiles to determine "gene expression signatures" that are common and predictive of drugs that produce specific types of toxicity.

"Without this database capability, a drug's single gene expression profile could not be interpreted," Dr. Snodgrass added. "The ability to use liver stem cells to differentiate drug-dependent gene expression profiles, and to compare those profiles of drugs known to induce toxic liver effects, provides a powerful tool for predicting liver toxicity of new drug candidates, including drug rescue variants."

Shawn K. Singh, VistaGen's Chief Executive Officer, stated, "Strong and enforceable intellectual property rights are critical components of our plan to optimize the commercial potential of our Human Clinical Trials in a Test Tube™ platform. This new liver toxicity typing

patent further solidifies our growing IP portfolio, and supports the continuing development of LiverSafe 3D™, our human liver cell-based bioassay system, which complements our CardioSafe 3D human heart cell-based bioassay system for heart toxicity."

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.

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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. VistaGen undertakes no obligation to publicly update or revise any forward-looking statements.

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