



VistaGen



NuPotential, Inc

**VISTAGEN AND NUPOTENTIAL RECEIVE NIH GRANT
TO DEVELOP SAFER APPROACHES FOR PRODUCING
PATIENT-INDUCED PLURIPOTENT STEM CELLS**

South San Francisco, CA, and Baton Rouge, LA, January 2, 2011/ Business Wire / -- VistaGen Therapeutics, Inc. and NuPotential, Inc. today announced that the National Heart, Lung and Blood Institute of the U.S. National Institutes of Health (NIH) has awarded to the companies a grant of approximately \$500,000 to accelerate development of novel and safer approaches to generate patient-specific induced pluripotent stem (iPS) cells for regenerative medicine, drug discovery and drug rescue. VistaGen's versatile *Human Clinical Trials in a Test Tube*[™] platform involves the use of integrated stem cell technologies and validation processes associated with the function and utility of pluripotent stem cells to produce human heart, liver, pancreas and blood cells. NuPotential's innovative cell programming technology involves the use of proprietary small molecule-based cell reprogramming processes for generating patient-specific iPS cells instead of commonly-used retroviruses or cancer-inducing oncogenes.

Pluripotent stem cells can differentiate into any of the more than 200 types of cells in the human body. Recent developments in stem cell research have made it possible to obtain pluripotent stem cell lines from any individual without the use of embryos. Human iPS cells are mature adult cells that have been "reprogrammed" to induce and maintain the pluripotential property of embryonic stem cells. Most approaches to produce human iPS cells use retroviruses to activate and/or express multiple key genes, including an oncogene that is associated with production of cancer cells. The use of retroviruses and oncogenes are potentially problematic for clinical applications involving cells derived from iPS cells due to the significant increased risk of inducing a cancer transformation. NuPotential's cell reprogramming technology could represent a dramatic improvement in the safety profile of iPS cells.

This NIH grant will support further development of patient-specific iPS cell programming processes by NuPotential, as well as VistaGen's differentiation protocols and processes focused on the validation and use of the iPS cells for regenerative medicine applications and in clinically-relevant biological assays for small molecule drug discovery and drug rescue. Dr. Jong Rim, Senior Scientist at NuPotential, and Dr. Ralph Snodgrass, VistaGen's President and Chief Scientific Officer, will serve as Principal Investigators for this new NIH grant program.

"The iPS cells produced through NuPotential's safer reprogramming processes are expected to offer us many advantages in drug discovery and drug rescue applications of our *Human Clinical Trials in a Test Tube* platform," said Shawn K. Singh, JD, VistaGen's Chief Executive Officer. "We also expect these iPS cells to play a key role in our regenerative medicine initiatives focused on heart and liver disease and cartilage-repair. This initial NuPotential/VistaGen collaboration is a perfect next step to advance leading-edge stem cell technology at both companies."

About VistaGen Therapeutics

VistaGen Therapeutics is a biotechnology company applying pluripotent stem cell technology to build a proprietary pipeline of novel small molecule drug candidates and regenerative medicine therapies. VistaGen's versatile *Human Clinical Trials in a Test Tube*[™] platform involves the

directed differentiation of pluripotent stem cells for “disease-in-a-dish” drug discovery and drug rescue of small molecule drug candidates and to develop regenerative medicine for heart and liver disease and cartilage-repair. To date, VistaGen has been awarded over \$12.8 million in non-dilutive grant funding for its R&D programs.

About NuPotential, Inc.

NuPotential, Inc. is addressing the high-growth cell therapeutics market by developing new systems for evaluating and directing human cell reprogramming. NuPotential expects its novel technologies to address the urgent and growing customer demand for new, renewable cell lines that alleviate the shortage of starting material for cell therapy development, simplify and accelerate cell therapy research and enable researchers to more quickly and precisely develop regenerative therapies for such afflictions as Alzheimer’s disease, diabetes, and stroke. NuPotential also is differentiating reprogrammed cells to identify small molecule drug candidates for treatment of type2 diabetes and obesity-related diseases. To date, NuPotential has been awarded over \$ 2.5 million in non-dilutive grant funding for its R&D programs.

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