



VistaGen

VistaGen Therapeutics, Inc. (VSTA) is a biotechnology company applying stem cell technology for drug rescue and cell therapy. Drug rescue combines human stem cell technology with modern medicinal chemistry to generate new chemical variants (“drug rescue variants”) of promising drug candidates that have been discontinued during preclinical development (“put on the shelf”) due to heart or liver safety concerns. VistaGen also focuses on cell therapy, or regenerative medicine, which includes repairing, replacing or restoring damaged tissues or organs.

VistaGen’s versatile stem cell technology platform, *Human Clinical Trials in a Test Tube™*, has been developed to provide clinically relevant predictions of potential toxicity of promising new drug candidates long before they are ever tested on humans. VistaGen’s human pluripotent stem cell-based bioassay systems more closely approximate human biology than conventional animal studies and other nonclinical techniques and technologies currently used in drug development.

Using mature human heart cells produced from pluripotent stem cells, VistaGen leveraged its *Human Clinical Trials in a Test Tube™* platform to develop CardioSafe 3D™, a novel three-dimensional (3D) bioassay system for predicting the in vivo cardiac effects of new drug candidates before they are tested in humans. The Company now plans to use CardioSafe 3D™ to build a pipeline of small molecule drug rescue variants of once-promising drug candidates that have been “put on the shelf” by pharmaceutical companies and academic research institutions because of heart toxicity concerns, despite positive efficacy data signaling their potential therapeutic and commercial benefits.

VistaGen’s lead drug candidate, AV-101, is in Phase Ib development in the U.S. for treatment of neuropathic pain, a serious and chronic condition causing pain after an injury or disease of the peripheral or central nervous system. Neuropathic pain affects approximately 1.8 million people in the U.S. alone. To date, VistaGen has been awarded over \$8.5 million from the U.S. National Institutes of Health (NIH) for development of AV-101.

VistaGen is also developing LiverSafe 3D™, a novel predictive liver toxicity and drug metabolism bioassay system for drug rescue applications. In parallel with drug rescue activities, the company is funding early-stage nonclinical studies focused on potential cell therapy applications of its *Human Clinical Trials in a Test Tube™* platform. Each of these nonclinical studies is based on the proprietary human pluripotent stem cell differentiation and cell production capabilities of VistaGen’s *Human Clinical Trials in a Test Tube™* platform.

Key Investment Highlights

- Proprietary Stem Cell Technology Addressing Major Challenge in Drug Development
- Drug Rescue Platform Designed to Recapture Prior Investment in Candidates
- Lead Drug Candidate Targeting Neuropathic Pain Advancing in NIH-funded Phase I Clinical Trials
- Experienced Management Team with Decades of Relevant Experience
- Technology Designed to Save Millions of Healthcare Dollars

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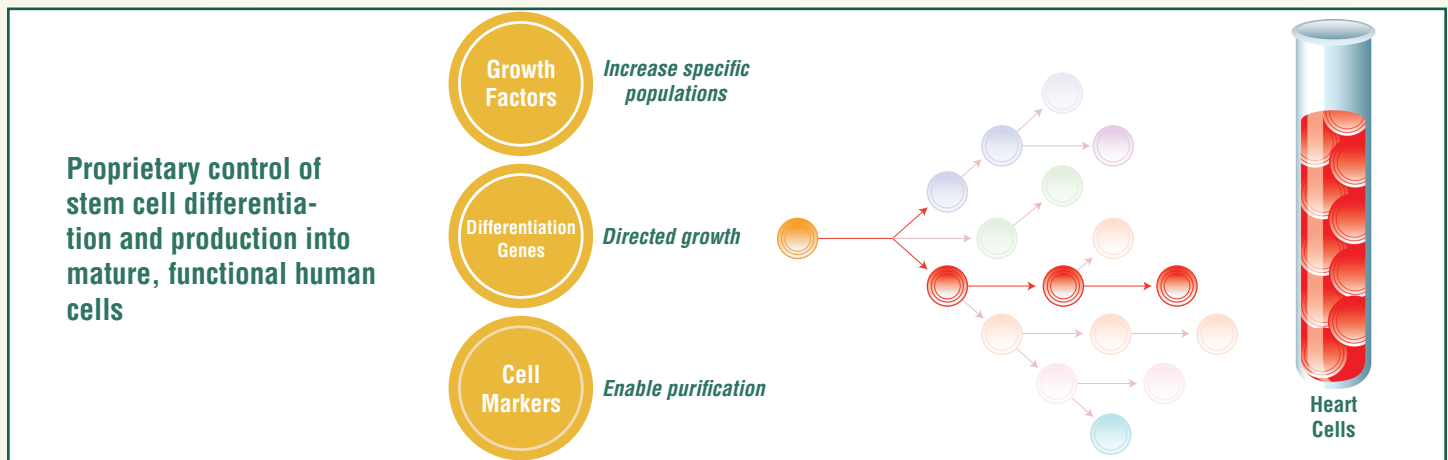


Technology

VistaGen's *Human Clinical Trials in a Test Tube™* platform is based upon a combination of proprietary and exclusively licensed stem cell technologies, including technologies developed over the last 20 years by renowned Canadian scientist, Dr. Gordon Keller, and Dr. Ralph Snodgrass, the Company's founder, President and Chief Scientific Officer.

The proprietary and licensed technologies underlying the Company's *Human Clinical Trials in a Test Tube™* platform enable the ability to direct and stimulate the differentiation process of pluripotent stem cells into mature human cells specific to VistaGen's drug rescue and cell therapy programs.

Differentiating human pluripotent stem cells into mature, functional human cells could allow the identification of new drug candidates that exhibit human toxicity early in the drug development process, resulting in efficient refocusing of resources on those drug candidates with the highest probability of success. VistaGen believes this has the potential to substantially reduce development costs while producing effective and safer drugs.



The combination of the Company's proprietary and licensed technologies enables the development of 2D and 3D human cell-based bioassay systems that consist of large numbers of normal, non-transformed human cells that function as a micro-organs.

The 3D micro-organ cultures induce the cells to grow, mature, and develop 3D cell networks and tissue structures. These 3D cell networks and structures are believed to more accurately reflect the structures and biology inside the human body and are expected to yield responses to drug candidates that are more clinically predictive of human drug responses than traditional flat 2D cultures.

VistaGen believes that its *Human Clinical Trials in a Test Tube™* platform will allow the assessment of the toxicity profile of new drug candidates for a wide range of diseases and conditions with greater speed and precision than nonclinical in vitro techniques and technologies currently used by pharmaceutical companies in the drug development process.



Business Model

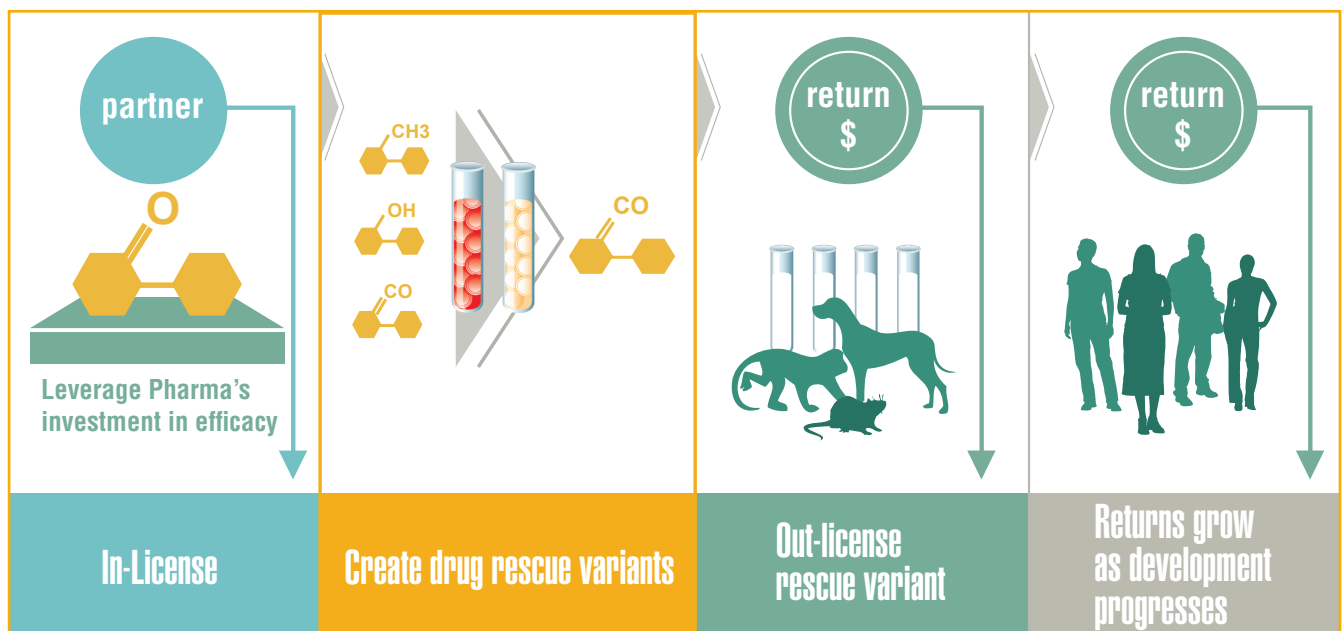
A pharmaceutical company can spend millions of dollars to discover, optimize and validate the potential efficacy of a promising lead drug candidate and advance it through nonclinical development, only to see it fail due to unexpected heart or liver toxicity. The pharmaceutical company then often discontinues the development program for the once promising drug candidate and it is simply “put on the shelf” despite the positive efficacy data indicating its potential therapeutic and commercial benefits. As a result, the pharmaceutical company’s significant prior investment may be lost.

The U.S. is facing a drug discovery crisis. Over the past decade, the number of new drugs approved by the U.S. Food and Drug Administration has plummeted by more than 50%, despite substantial increases in research and development funding by the U.S. pharmaceutical industry. It has been estimated that the drug discovery, development and commercialization programs of major pharmaceutical companies have required an average investment of approximately \$800 million to \$1.7 billion and 12 to 15 years before a new drug candidate reaches the market.

VistaGen is focused on breaking down a fundamental barrier to more efficient development of new drug candidates. By meeting the significant unmet need for predictive toxicology screening assays that more closely approximate human biology at the front end of the drug development process, VistaGen believes pharmaceutical companies can recapture value from their substantial prior investment in drug candidates that have been put on the shelf due to safety concerns.

VistaGen’s goal is to leverage its stem cell technology to build a diverse drug pipeline of new, proprietary “drug rescue variants” which are as effective as the original drug candidates but without the toxicity that caused them to be put on the shelf in the first place. Focusing on failed drug candidates with positive efficacy data could give the Company a valuable “head start” in its efforts to identify and develop new drug rescue variants faster and less expensively than drug candidates discovered and developed using only conventional animal and *in vitro* cell culture testing.

Drug Rescue Model





Management

Shawn Singh, J.D. **Chief Executive Officer, Director**

Mr. Singh has over 20 years of experience working with public and private biotechnology and pharmaceutical companies. He formerly served as Managing Principal of Cato BioVentures, a life science venture capital firm, and as Chief Business Officer of Cato Research Ltd., a global contract research and development organization (CRO). Mr. Singh has also served as President of Echo Therapeutics (Nasdaq: ECTE) and as Chief Business Officer of SciClone Pharmaceuticals (Nasdaq: SCLN). Mr. Singh began his career as a corporate finance attorney in the Silicon Valley offices of Morrison & Foerster LLP. Mr. Singh is a member of the State Bar of California.

Ralph Snodgrass, Ph.D. **President, Chief Scientific Officer, Director**

Dr. Snodgrass founded VistaGen in 1998. He has over 13 years of experience in senior biotechnology management, including as Chief Scientific Officer of Progenitor, Inc. He has more than 10 years of research experience as a professor at the Lineberger Comprehensive Cancer Center, University North Carolina Chapel Hill School of Medicine, and as a member of the Institute for Immunology, Basel, Switzerland. Dr. Snodgrass is a past Board Member of the Emerging Company Section of the Biotechnology Industry Organization (BIO), and is a published and recognized pioneering expert in stem cell biology with more than 20 years' experience in the uses of stem cells as biological tools for drug discovery and development.

Gordon Keller, Ph.D. **Chairman, Scientific Advisory Board**

Dr. Keller, recently named a "Top 25 Transformational Canadian" for his stem cell research, was appointed Director of the McEwen Centre for Regenerative Medicine of the University Health Network in Toronto in 2007. He has published more than 100 papers and is named on five patents. Dr. Keller is a former president of the International Society for Stem Cell Research (ISSCR), the primary international organization of stem cell researchers, representing 3,800 scientists, ethicists and clinicians worldwide. He is the Canada Research Chair in Embryonic Stem Cell Biology, a Professor at the University of Toronto and a Senior Scientist in the Division of Stem Cell and Developmental Biology at the Ontario Cancer Institute. Dr. Keller was a Professor in the Department of Gene and Cell Medicine at the Mt. Sinai School of Medicine in New York where he was described by New York Magazine as one of "six doctors New York can't lose."