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### **VIRxSYS Awarded Maryland Stem Cell Grant**

*Proprietary technologies to be used to advance the development of induced stem cells*

**Gaithersburg, MD - (JUNE 15, 2009) - VIRxSYS Corporation** announced today that the company has received a grant from the Maryland Stem Cell Research Commission to develop safer methods for induced pluripotent stem cell (iPS) using the company's proprietary spliceosome-mediated RNA *trans*-splicing (SMaRT™) and lentiviral gene delivery platform technologies.

“Our research proposes to use VIRxSYS’ proprietary technology for safer derivation of iPS cells, using a delivery system that does not permanently modify the genome of the cell,” said VIRxSYS President and CEO Riku Ratsoula. “We are deeply honored that the Maryland Stem Cell Research Commission selected our work for this grant.”

iPS cells have the unique ability to develop into different cell types in the body. They have potential therapeutic applications for the regeneration of damaged organs or replacement of defective tissues with genetically corrected stem cells. The breakthrough iPS discovery essentially reprograms differentiated cells, (cells which are specialized for a particular function such as skin or hair follicle), converting them into iPS cells. These pluripotent stem cells have many potential clinical applications. iPS cells can be patient-specific and used as cell or gene-based therapies for diseases such as Parkinson’s disease, type I diabetes, and cancer. Therefore, iPS cells generated from patients with genetic diseases can be corrected for the genetic defect and then used to replace the damaged tissue or regenerate new tissue for damaged organs.

“Current methods to derive iPS cells include elements that may cause adverse effects,” said Ratsoula. “We believe that our proprietary technologies can circumvent these issues. This grant will allow us to develop and optimize these safer and more efficient methods of iPS generation.”

iPS cells are derived by expressing four “pluripotency factors” in differentiated cells. These factors are expressed using gene delivery systems that integrate within the DNA of the cells, leaving the possibility that they may be reactivated to produce the factors inappropriately. Instead, VIRxSYS lentiviral vector delivery system will result in only transient expression of these factors, which will eventually be lost as the cells divide and grow, which is deemed to be safer. In addition, VIRxSYS’ SMaRT™ technology will link the expression of these pluripotency factors to genes which are turned on only at the relevant stage of reprogramming, and then shut off once iPS are generated.

### **About VIRxSYS**

Founded in 1998, VIRxSYS is a private biotechnology company that focuses on the development of a novel lentiviral gene delivery platform technology for the treatment of serious diseases. The Company has exclusively licensed its patented, proprietary lentiviral technology platform from The Johns Hopkins University (JHU) in Baltimore, Maryland where the original research was conducted. The Company obtained its SMaRT™ technology from Intronn Inc. More information regarding VIRxSYS can be found at [www.virxsys.com](http://www.virxsys.com).

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