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## Press Release

### ***Molecular Transfer, Inc. (MTI-GlobalStem) Awarded a Phase I Small Business Innovative Research (SBIR) Grant from The National Institutes of Health***

Sept. 14, 2016

Molecular Transfer, Inc. (MTI-GlobalStem) announced today that it has been awarded a Phase I Small Business Innovative Research (SBIR) grant from the National Institutes of Health. The grant will be focused on developing novel transfection technology and applying this new science to the directed differentiation of human pluripotent stem cells (hPSC). In this project, MTI-GlobalStem will develop the first defined system for the generation of subtype- and brain region- specific neurons from hPSC, in a time- and gene dose-controlled manner. That is, the new transfection technology will allow fine-tuned control of gene expression which will be applied to making neurons specifically involved in risk taking, reward, and addiction. The grant is a 12-month, \$225,000 award administered through the National Institute on Drug Abuse (NIDA).

In order to fully understand the physiological changes in the addicted brain on a cellular level, scientists must have the proper tools for study. The first step toward creating these tools is the establishment of an *in vitro* system of human dopaminergic neurons. Such a system would not only enable cellular, molecular, and physiological studies into the mechanisms of addiction but also open the door to the screening and development of small molecules and drugs that can potentially block the onset of changes associated with addiction or even reverse these changes.

“We are pleased that NIH recognized MTI-GlobalStem’s unique capability to develop state of the art mRNA transfection delivery technology and the synergies that these technologies have with directed differentiation of stem cells to neural stem cells and neurons. Our current expertise in neuronal differentiation will be accelerated by this grant and intellectual property that we just obtained from John Hopkins University. We view this project as a beginning and have our sights set on additional grants as well as a potential Phase 2 for the current SBIR. Our goal is to expand our functional discovery platform in the neurosciences market place.” said Joel Jessee, MTI-GlobalStem’s Chief Scientific Officer and CEO. Dr. Jonathan Auerbach will be the Principal Investigator on the grant.



About MTI-GlobalStem: MTI-GlobalStem is a privately-owned biotechnology company located in Gaithersburg, MD. The Company has an active research program that utilizes expertise in transfection, neuroscience and stem cell biology to develop and supply scientists with the necessary tools and reagents to help advance new discoveries and developments in the life sciences. Utilizing the company's intellectual property and know-how, and a specialized team of highly skilled and experienced scientists, MTI-GlobalStem is filling the gap with primary and iPSC-derived neural cells, stem cells and supporting feeder cells, optimized growth media and supplements, and an innovative platform of novel targeted reagents used to deliver nucleic acids into stem cells and neuronal cells with maximum efficiency.