Texas A&M Institute for Regenerative Medicine and Celltex Therapeutics enter agreement for Alzheimer's research

- Celltex acquires intellectual property license, signs multi-year research study with Texas A&M Health Science Center -

HOUSTON (February 6, 2018) Houston-based biotechnology company, Celltex Therapeutics Corporation, and Texas A&M University Health Science Center College of Medicine Institute for Regenerative Medicine today announced an intellectual property license acquisition and research agreement. The announcement signals the first year of a multi-year research study investigating potential therapies for Alzheimer's disease using autologous mesenchymal stem cell (MSC)-derived exosomes.

Celltex, a pioneer in autologous stem cell technology, is known for its proprietary stem cell process, which yields adult MSCs in quantities never before possible for use in therapy for vascular, autoimmune and degenerative diseases, as well as injuries. Celltex's acquisition of the exclusive license adds to its portfolio of cellular and exosomes intellectual property.

As part of the research agreement, Darwin J. Prockop, MD, PhD, the Stearman Chair in Genomic Medicine, director of the Texas A&M Institute for Regenerative Medicine and professor at the Texas A&M College of Medicine, and his lab will prepare adult MSCs and use them to derive anti-inflammatory exosomes, which are tiny vesicles that can deliver anti-inflammatory agents to the brain.

Ashok K. Shetty, PhD, a professor at the Department of Molecular and Cellular Medicine at the Texas A&M College of Medicine, associate director of the Institute for Regenerative Medicine and research career scientist at the Olin E. Teague Veterans' Medical Center, and his team will test the efficiency of these exosomes to reduce brain inflammation and assist in repair of neuronal damage related to Alzheimer's disease.

"There are more than five million Americans living with Alzheimer's," Shetty said. "Right now, there is no cure: The best that drugs can do is conceal the cognitive and behavioral symptoms of Alzheimer's in the short term, but they do not cure the underlying disease or halt its advancement. We are hopeful that this research might someday treat the disease effectively by stopping or delaying the neuronal damage. Alternatively, exosomes may rejuvenate the networks of surviving but sick neurons via anti-inflammatory and neuroprotective effects."

Some of Prockop and Shetty's previous work has involved testing the use of exosomes to decrease traumatic brain injury- and seizure-related damage to the brain.

"My laboratory has done research for over 20 years on the adult stem cells that are called MSCs and that Celltex has developed. Recently, we and others discovered that many of the beneficial

effects of MSCs are caused by the small vesicles called exosomes that MSCs secrete. The agreement with Celltex is based on our more recent discovery that we can use MSCs to produce large amounts of a specific kind of exosomes that reduce inflammation, which is a process by which the body tries to repair injured tissues. Unfortunately, inflammation is excessive in many diseases and actually does the opposite and increases the damage to tissues. However, we found that our anti-inflammatory exosomes decreased tissue damage in several animal models for human diseases, including diseases of the brain," Prockop said. "The results strongly suggest the exosomes can provide a new and effective therapy for Alzheimer's disease. We're very excited about this opportunity to move the research forward."

Although the current studies under this agreement are to be done in animal models, the objective is to have the first phase of human clinical trials beginning within three years.

"We are pleased to have the opportunity to collaborate with Texas A&M Institute for Regenerative Medicine, an exceptional leader in stem cell research, to conduct trials related to Celltex's investigational stem cell therapy in Alzheimer's patients," said Celltex Chief Executive Officer David Eller. "Our collaboration with Dr. Prockop and Dr. Shetty is an important step in initiating breakthroughs in regenerative medicine, as we explore how our autologous mesenchymal stem cell technology can help traumatic brain injury and other neurodegenerative disorders."

About Celltex Therapeutics Corporation

Celltex uses proprietary technology that isolates, multiplies and banks autologous (one's own) adult mesenchymal stem cells (MSCs), to be used in regenerative therapy for injuries and chronic pain as well as a number of other conditions, including vascular, degenerative and autoimmune diseases. Celltex is registered with the U.S. Food and Drug Administration (FDA) as an HCT/P establishment that multiplies human cells and cellular products. The Houston-based biotechnology company operates in a state-of-the-art laboratory compliant with Current Good Manufacturing Practice (cGMP) standards as recommended by the FDA for the manufacturing of biological products. To learn more about Celltex, visit www.celltexbank.com

About Texas A&M University Health Science Center

Texas A&M University Health Science Center is transforming health through innovative research, education and service in dentistry, medicine, nursing, pharmacy, public health and medical sciences. As an independent state agency and academic unit of Texas A&M University, the health science center serves the state through campuses in Bryan-College Station, Dallas, Temple, Houston, Round Rock, Kingsville, Corpus Christi and McAllen. Learn more at vitalrecord.tamhsc.edu or follow @TAMHSC on Twitter.