

Tulane researcher awarded \$2.4 million to study stem cell treatment for stroke

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Jean-Pyo Lee, PhD, assistant professor of physiology in the Tulane School of Medicine, was recently awarded a five-year, \$2.4 million grant from the National Institute of Neurological Disorders and Stroke to study the effectiveness of neural stem cells in treating stroke. (Photo from School of Medicine)

Jean-Pyo Lee, PhD, assistant professor of physiology in the Tulane School of Medicine, was recently awarded a five-year, \$2.4 million grant from the National Institute of Neurological Disorders and Stroke to study the use of neural stem cells in treating stroke.

Lee says that stem cell therapy potentially offers great promise in treating stroke, which is a leading cause of death in the United States. The only available drug approved by the U.S. Food and Drug Administration (FDA) for treatment of ischemic stroke (clots) is thrombolytic tissue plasminogen activator (tPA), which dissolves blood clots.

Procedures such as mechanical thrombectomy, during which a surgeon removes a blood clot by inserting a catheter into a blood vessel, restore blood flow but have a greater risk of destabilizing the blood-brain barrier, the vessel network protecting the brain from foreign substances in the blood.

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Neural stem cells possess the ability to replace functional neurons and trigger anti-inflammatory actions which could improve recovery from acute stroke injury. Stem cell therapy currently targets stroke rehabilitation by delivering cells during the recovery (not acute) phase. New therapies are needed to lessen stroke's detrimental effects and quickly facilitate vascular repair.

Lee's project is aimed at investigating the beneficial role of early administration of stem cells in repairing blood vessels and brain tissue after stroke and improving long-term stroke recovery. To read more about Lee and her work, [click here](#).