

James & Esther King Biomedical Research Program

Pennypacker, Keith

*Molecular Pharmacology and Physiology
University of South Florida*

*2011 Program
Technology Transfer Commercialization Partnership
(1-year project)*

Project Title: GLG-302 as a Novel Treatment for Stroke

Project Summary: Every year over 800,000 Americans suffer a stroke, and 170,000 of these individuals will die as a consequence of this disease. One of the most significant consequences of cigarette smoking is a pronounced increase in the risk for ischemic stroke. Currently, the only FDA-approved treatment for stroke has a narrow, six-hour window for use and has potentially hazardous side effects. Only 2-4 percent of all stroke patients are candidates for the able treatment, and thus there is a great need to discover new drugs for this common disease. Finding new pharmaceutical entities to treat stroke will not only save many patients' lives but will also likely enhance the quality of life for these individuals by decreasing the severity of physical disability caused by the stroke. GLG-302 is an experimental drug in preclinical trials for cancer treatment. This pharmaceutical has undergone rodent studies to prove its safety. We have recently discovered that this compound provides protection of neural cells in an experimental model of stroke. This protection plus its anti-inflammatory action make it an ideal candidate to develop as a new therapeutic for stroke. The goal of this proposal is to not only develop a new drug for stroke but also to increase treatment availability for more patients.