

ERI retina research team earns \$252,000 in grant funding



Professor Ken Mitton from the Eye Research Institute is shown here working in the lab with undergraduate research student Jennifer Felisky.

📅 October 31, 2019

SHARE THIS STORY

[Kenneth Mitton, Ph.D.](#), professor in the Oakland University [Eye Research Institute \(ERI\)](#) and principal investigator, along with co-investigators on the grant, ophthalmologists Michael Trese, M.D., and Kimberley Drenser, M.D., Ph.D. at Retinal Solutions, LLC, has been awarded two significant grant funding awards to investigate a drug for potential retinal regeneration.



OU undergraduate student researcher Jennifer Felisky, working here with Professor Mitton, also contributed to the preliminary research.

The first grant is a National Institutes of Health Small Business Technology Transfer (STTR) R41 grant for \$227,000. In addition, the team has been awarded a Michigan Emerging Technologies Fund grant for \$25,000 that will be used to support research on production of the drug.

The team will use the grant funding for one year to investigate Noregen,TM a protein-based ocular therapeutic drug, which may promote regeneration and repair of damaged retinal blood vessels in the human eye. The hope is that the drug will be able to stimulate vascular endothelial stem-cells that naturally reside in the surviving retinal blood vessels and have the ability to produce lost endothelial cells.

“In many retinal diseases, parts of the retina fail to function due to loss of circulation or neuronal damage,” said Dr. Trese. “This drug may be able to reverse these effects and is part of an evolving and exciting new area of medicine broadly referred to as regenerative medicine.”

Dr. Mitton believes this initial project could be the first phase of a longer cooperative project that will eventually lead to a human clinical trial.

“The long-term goal is to develop the agent for use in patients with retinal vascular problems which often lead to loss of vision, particularly for patients diabetic retinopathy or several pediatric retinal diseases,” Dr. Mitton explained.

[Frank Giblin](#), Ph.D., Distinguished Professor of Biomedical Sciences & Director of the Eye Research Institute added, “This is the first STTR funding ever received by an ERI faculty member and we are very proud of Dr. Mitton and his team for bringing this important research to Oakland University.”

Generous support for obtaining preliminary data was provided by the Pediatric Retinal Research Foundation and Antonio Capone, M.D., president.

ERI DNA sequencing technologist Wendy Dailey and OU undergraduate student researcher Jennifer Felisky also contributed to the preliminary research to design biotechnology production of Noregen in bacteria.