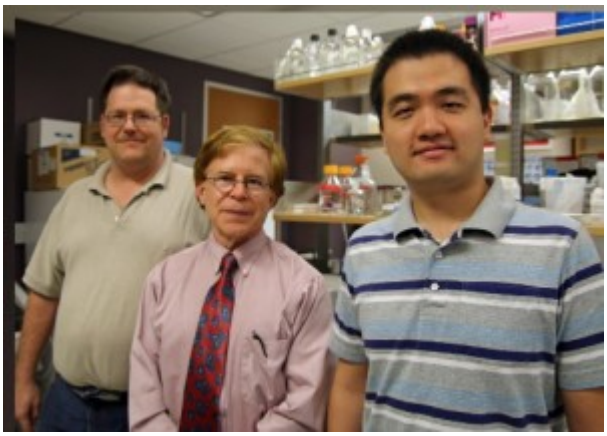
IUSO Faculty Collaborate on Diabetic Eye Disease Research

By combining data from optometry patients' eyes with advanced computational methods, Indiana University researchers have created a virtual tissue model of diabetes in the eye. Their work is published in the journal *PLOS Computational Biology.* According to Dr. Thomas Gast, an ophthalmologist and senior scientist at Indiana University School of Optometry (IUSO) and one of the paper's authors, "This paper establishes a step-by-step pathway from a diabetic's elevated blood sugars to the vascular complications in the eye. Therapeutically, understanding a disease can lead to improved treatments." According to the university, the virtual retina model provides the first strong evidence for why the pattern of diabetic eye disease progression is so variable, and it predicts where damage will occur next.



IUSO's Dr. Thomas Gast, center, with John Gens, left, and Xiao Fu of the university's Biocomplexity Institute. (Photo by Indiana University)

Stephen A. Burns, IUSO Professor and Associate Dean for Graduate Programs, also participated in the study, which was supported in part by the National Institutes of Health, the Falk Foundation and the university's Collaborative Research Grant Program.