



University of Rochester
Flaum Eye Institute Basic Science Seminar Series



Budd Tucker, PhD

*Institute for Vision Research, Department of Ophthalmology & Visual Sciences,
Carver College of medicine, University of Iowa*

budd-tucker@uiowa.edu

Title:

“ Using Patient Derived Induced Pluripotent Stem Cells
to Model and Treat Inherited Retinal Disease ”

Abstract: Inherited retinal degenerative disorders, ranging from relatively common conditions such as Stargardt disease to rare forms of retinitis pigmentosa, are extraordinarily genetically heterogeneous. To date more than 100 different genes and thousands of different disease-causing mutations have been identified. The unifying feature of these conditions is the ultimate death of the light sensing photoreceptor cells of the outer neural retina. As the retina has little intrinsic regenerative capacity, photoreceptor cell death results in irreversible vision loss. Fortunately, scientific progress in the fields of molecular genetics, genome editing, stem cell biology and tissue engineering have given us reason to be optimistic for the future of patients who receive an inherited retinal degeneration diagnosis. In this talk I will discuss work from our group focused on the use of patient derived induced pluripotent stem cells to molecularly diagnosis, study and treat patients with inherited retinal degeneration. Specifically, I will provide examples of how we are using patient iPSCs to evaluate the pathogenicity of novel genetic variations and develop a restorative autologous photoreceptor cell replacement approach.

Postponed

~~Friday, February 2, 2024 @ 1:00 PM~~