



Thank you for your participation in the



*Visual Sciences Retreat
(VSR) 2024*



*UofL Visual Sciences Retreat
(VSR) 2024*

October 4, 2024

11:00 AM - 4:00 PM

(Lunch served @ 11:00)



*Kentucky Lion Eye Center,
Basement Seminar Room,
301 E Muhammad Ali Blvd,
Louisville, KY 40202*

Schedule

Objectives & Description

Our visual sciences community at UofL continues to expand and has become one of the largest in academic universities. Our research efforts are housed within the departments of: Ophthalmology & Visual Sciences, Anatomical Sciences & Neurobiology, Biochemistry & Molecular Genetics, Pharmacology & Toxicology, Psychological & Brain Sciences and Bioengineering. We are supported by Federal agencies (NIH, DOD, NSF) and non-profit foundations.

The **Visual Sciences Retreat (VSR)** will highlight the research topics being explored at UofL. We will discuss the resources present in our vision science community as well as the specific topics of the research in our laboratories. We aim to continue increasing awareness and fostering collaborations within our vision community. VSR-2024 will be held on Friday, October 4, 2024.

Keynote Speaker

Rachel Wong, PhD



Professor and Chair
Department of Biological Structure
University of Washington, Seattle, Washington

Dr. Rachel Wong is a renowned neurobiologist. Her research focuses on the developmental mechanisms that determine synaptic connectivity in the central nervous system. Dr. Wong's lab investigates the development and regeneration of synaptic circuits in the vertebrate retina, leading to circuit assembly in development, circuit disassembly in degeneration, and circuit reassembly upon cellular regeneration. Her studies explore the retinas of zebrafish, mice, humans, and non-human primates to answer these questions. Her lab applies a diversity of cutting-edge technologies such as in vivo and in vitro confocal and multiphoton imaging, serial block-face scanning electron microscopy, transgenic methods, and electrophysiology to investigate neuronal structure, function, and connectivity in normal and perturbed retinas. Her pioneering work has resulted in many notable publications. Her recent achievements include: the Friedenwald Award (2023), the Piatigorsky Basic Science Lecture and Award (2024). Rachel Wong was elected to the National Vision Research Institute of Australia (2018) and the National Academy of Sciences (2021).

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| 11:00 am | Lunch |
| 12:10 pm | Welcome and opening remarks by Dr. Joern Soltau, MD Chair & Professor, Dept. of Ophthalmology & Visual Sciences |
| 12:20 | Welcome and opening remarks by Dr. Maureen McCall, PhD Professor and Vice Chair of Research, Dept. of Ophthalmology & Visual Sciences |
| 12:30 | Keynote address presented by Dr Rachel Wong, PhD Professor and Chair, Dept. Of Biological Structure University of Washington, Seattle, Washington
“Wiring Specificity and Plasticity of the Vertebrate Retina” |
| 1:30 | Jacob Young, Graduate Student, Gregg Lab
Dept. of Biochemistry and Molecular Genetics
“A forward genetic screen of the efficacy of Rho 1-2”. |
| 2:00 | Jack Edward Feist, Med Student, McCall Lab
Dept. of Ophthalmology & Visual Sciences
“Mobility task shows rescue of scotopic vision in a swine model for autosomal dominant Retinitis Pigmentosa after gene editing with the meganuclease Rho 1-2” |
| 2:30 | Coffee Break |
| 3:00 | Kate Laise, Graduate Student, Ceresa Lab
Dept of. Pharmacology and Toxicology
“Inhibition of c-Cbl/Cbl-b in murine corneal epithelium enhances HGF-driven corneal epithelial healing” |
| 3:30 | James Whitley, Graduate Student, Bickford Lab
Dept. of Anatomical Science & Neurobiology
“GABAergic projections from the pretectum boost retinogeniculate signal transfer via disinhibition” |
| 4:00 | Wrap Up & Reception |