



Cullen Eye Institute invites you to join us for our inaugural Vision Research Symposium. This exciting symposium will be held VIRTUALLY ON ZOOM. The symposium is open to all vision scientists. The registration is free. We look forward to “meeting” you in the symposium!

BCM VISION RESEARCH SYMPOSIUM 2022

SYMPOSIUM ORGANIZERS



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**SATURDAY
DECEMBER 3RD**

**FOR REGISTRATION (FREE) &
MEETING INFORMATION:**



SPONSOR: RETINA RESEARCH FOUNDATION

BCM Vision Research Symposium

MEETING AGENDA

Time	Topic/Session	Speaker
8:45 a.m.	Welcome & Introduction	Yingbin Fu, Ph.D., Wei Li, Ph.D.
Session 1: Immune cells in retinal development and diseases Moderator: Elizabeth Zuniga-Sanchez, Baylor College of Medicine		
8:55 – 9:20 a.m.	Modulation mononuclear phagocytes in retinal disease	Thomas Langmann University of Cologne, Germany
9:20 – 9:45 a.m.	Neural-immune interactions in the developing retina	Melanie Samuel Baylor College of Medicine
9:45 – 10:10 a.m.	Microglial pathways mediating neuron elimination during retinal development	Monica Vetter University of Utah
10:10 – 10:20 a.m.	Break	
Session 2: Glaucoma Moderator: Jijie Pang, Baylor College of Medicine		
10:20 – 10:45 a.m.	Single cell transcriptome analysis of regenerating RGCs reveals potent glaucoma neural repair genes	Yang Hu Stanford University
10:45 – 11:10 a.m.	Retinal vasculature changes induced by elevated eye pressure in mice	Benjamin J. Frankfort Baylor College of Medicine
Keynote Address Moderator: Yingbin Fu, Baylor College of Medicine		
11:10 a.m. - 12:10 p.m	The right stuff? Assessing intrinsic properties of human pluripotent stem cell-derived photoreceptors	David M. Gamm University of Wisconsin (Introduced by J. Timothy Stout, Baylor College of Medicine)
12:10 - 12:40 p.m	Lunch Break	
Session 3: Cornea Moderator: Wei Li, Baylor College of Medicine		
12:40 - 1:05 p.m	The importance of being innervated: intraepithelial corneal nerves and their role in corneal homeostasis	MaryAnn Stepp George Washington University
1:05 - 1:30 p.m	Linking the gut microbiome to ocular surface disease in Sjögren Syndrome	Cintia S. de Paiva Baylor College of Medicine
1:30 - 1:40 p.m	Break	

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Session 4: Ocular angiogenesis

Moderator: Cintia S. de Paiva, Baylor College of Medicine

1:40 – 2:05 p.m.

Mechanistic insight and therapeutic strategies for drug resistance in age-related macular degeneration

Yingbin Fu
Baylor College of Medicine

2:05 – 2:30 p.m.

Ligandomics and disease-targeted anti-angiogenic therapy for ocular diseases

Wei Li
Baylor College of Medicine

Panel Discussion

Moderator: Rinki Ratna Priya, Baylor College of Medicine

2:30 – 3:20 p.m.

Single cell omics technologies in the eye

Rui Chen - Baylor College of Medicine
Seth Blackshaw - Johns Hopkins University
Karthik Shekhar - University of California, Berkeley

3:20 – 3:30 p.m.

Break

Session 5: Retinal wiring

Moderator: Zheng Jiang, Baylor College of Medicine

3:30 – 3:55 p.m.

Deciphering the molecular mechanisms of retinal wiring

Elizabeth Zuniga-Sanchez
Baylor College of Medicine

3:55 – 4:20 p.m.

Developmental plasticity of rod photoreceptor wiring and its implications for vision restoration

Kirill Martemyanov
UF Scripps Biomedical Research

4:20 – 4:45 p.m.

Electrical and chemical synaptic integration in retinal processing

Jimmy Zhou
Yale University

4:45 – 5:10 p.m.

New tools and approaches to study the daily plasticity and function of the rod/cone gap junction

Christophe P. Ribelayga
University of Houston

5:10 – 6:10 p.m.

Gather Town Social