BrightFocus-Funded Research

ARVO 2022
May 1 – 4 | Denver, Colo.
BrightFocus-Funded Research at ARVO 2022

Sunday, May 1, 2022

8:34 AM – 8:51 AM
2C/3C Mile High Ballroom | Symposium Talk
Petr Baranov, MD, PhD
Schepens Eye Research Institute/Massachusetts Eye and Ear and Harvard Medical School
Session: Cell-based Therapies for Vision Restoration
Allotransplantation of Retinal Ganglion Cells in Mice and Tree Shrews: Guiding Donor Cells to Their Fate

8:51 AM – 9:08 AM
2C/3C Mile High Ballroom | Symposium Talk
Jason Meyer, PhD
Indiana University
Session: Cell-Based Therapies For Vision Restoration
Exploring Human iPS Cell-Derived RGCs for Cell Replacement in Experimental Glaucoma

12:15 PM – 12:32 PM
605/607 | Paper Session
Hongli Wu, PhD
University of North Texas Health Science Center
Session: Cataractogenesis: Pathogenesis, Prevention and Treatment
Function And Therapeutic Potential Of Glutaredoxin (Grx) System In The Lens

12:15 PM – 12:32 PM
2C/3C Mile High Ballroom | Paper Session
Kevin Chan, PhD
New York University School of Medicine
Session: Neurodegeneration
Chronic Intraocular Pressure Elevation Alters Cerebrovascular Reactivity in the Visual Cortex and Basal Forebrain

HOT TOPIC
12:15 PM – 2:15 PM
Poster # F0176 | Poster Session
Christopher Hammond, MD, MRCP, FRCOphth
King’s College London
Session: AMD: Clinical and Translational Research/AMD Therapies (excluding anti-VEGF)
Machine Learning Identification of Microbiota Associated with Age-Related Macular Degeneration
Presented By: Zakariya Jarrar

12:15 PM - 2:15 PM
Poster # F0320 | Poster Session
Bradley Gelfand, PhD
University of Virginia
Session: Vascular Biology
Sexual Dimorphism in Antigen-Independent Angiogenesis Inhibition of IgG1 Antibodies
Presented By: Dionne Argyle

12:15 PM - 2:15 PM
Poster # A0052 | Poster Session
Jeffrey M. Gidday, PhD
Louisiana State University (LSU) School of Medicine
Session: Gene Therapy and Gene Editing for Ocular Disorders
The Proteomic Phenotype of the Epigenetically Conditioned, Injury-Resilient Mouse Retina
Presented By: David Corell

12:15 PM - 2:15 PM
Poster # F0426 | Poster Session (Virtual)
Ethan Rossi, PhD
University of Pittsburgh
Session: Applications of Adaptive Optics and Advanced Imaging
Imaging Retinal Microglial Cell Dynamics in Healthy and Diseased Eyes In Vivo with Adaptive Optics
Presented By: Yuhua Rui

12:15 PM - 2:15 PM
Poster # A0052 | Poster Session
Siamak Yousefi, PhD
Schepens Eye Research Institute/Massachusetts Eye and Ear and Harvard Medical School
Session: Application of Multi-omics to Inherited Ocular Disease
Identification of Retinal Cell Types Based on Single-Cell Transcriptomics
Presented By: Yeganeh Madadi

12:15 PM - 2:15 PM
Poster # F0312 | Poster Session
Ye Sun, MD, PhD
Boston Children’s Hospital
Session: Vascular Biology
SOCS3 Regulated Retinal Angiogenesis via Modulating Myeloid Lineage Cell Recruitment
Presented By: Tianxi Wang
**BrightFocus-Funded Research at ARVO 2022**

12:15 PM to 2:15 PM
Poster # F0327 | Poster Session
Dimitra Skondra, MD, PhD
University of Chicago
Session: Vascular Biology
High-fat Diet Modulates the Retinal Pigment Epithelium and Choroid Transcriptome in the Absence of Gut Microbiota
Presented By: Jason Xiao

12:32 PM - 12:49 PM
601/603 | Paper Session
Daniel Saban, PhD
Duke University Eye Center
Session: Microglia in AMD and Other Immune Factors in Retinal Degenerative Disease
Augmentation of Protective Microglia Restricts Outer Retinal Degeneration and Preserves Vision
Presented By: Chen Yu

HOT TOPIC
1:40 PM - 1:57 PM
1AB Mile High Ballroom | Paper Session
Jonathan Lin, MD, PhD
University of California, San Diego
Session: AMD: If the Eye is a Camera, the Retina is the Film - Retinal Pathologic Insights
Retinal Horizontal Cell TDP-43 Pathology in Chronic Traumatic Encephalopathy Patients’ Retinas
Presented By: Jihee Choi

2:45 PM - 4:45 PM
Poster # A0382 | Poster Session
Amanda Melin, PhD
University of Calgary
Session: Structure-Function Relationship
The Relationship Between Optic Nerve Cup-to-Disc Ratio and Retinal Nerve Fiber Layer Thickness in Rhesus Macaques
Presented By: Sofya Gindina

2:45 PM - 4:45 PM
Poster # A0013 | Poster Session
Dimitra Skondra, MD, PhD
University of Chicago
Session: AMD - Biochemical and Molecular Disease Mechanisms
Microbiome Metagenomics in High-Fat Diet-Fed Mice Reveals Altered Microbial Metabolic Pathways Related to AMD
Presented By: Michael Boachie-Mensah

3:53 PM - 4:10 PM
2B/3B Mile High Ballroom | Paper Session
Rohini Nair, PhD
University of Pennsylvania
Session: Lipid Signaling and Homeostasis in Retinal Health and Disease
Characterization of Retinal Architecture in a Systemic HL/EL Double Knockout Mouse Model
Mentor: Venkata Ramana Chavali, PhD

HOT TOPIC
4:10 PM - 4:27 PM
4CD Mile High Ballroom | Paper Session
Michael Girard, PhD
Singapore Eye Research Institute, Singapore National Eye Centre
Session: Optic Neuropathies
Diagnostic and Therapeutic Approaches 3D Structural Analysis of the Optic Nerve Head to Robustly Discriminate Between Optic Disc Drusen and Papilledema
Co-PIs: Aung Tin, MBBS, PhD & Monisha Nongpiur, MBBS, PhD

5:15 PM - 5:32 PM
601/603 | Paper Session | 854
Ming Zhang, MD, PhD
Augusta University Research Institute, Inc.
Session: Pathobiology of Microbial Infections
Transcriptome Analysis of AMD-like Pathology in Aged BALB/c Mice Following Systemic Neonatal Murine Cytomegalovirus Infection

5:15 PM - 7:15 PM
Poster # A0401 | Poster Session
Amanda Melin, PhD
University of Calgary
Session: Neurodegeneration
Lamina Cribrosa Microstructure in Non-Human Primates with Naturally Occurring Peripapillary Retinal Nerve Fiber Layer Thinning
Presented By: Palaiologos Alexopoulos

5:15 PM - 7:15 PM
Poster # A0417 | Poster Session
Bradley Gelfand, PhD
University of Virginia
Session: Immunobiology: Ocular Surface, Glaucoma and Retinal Degeneration
NLRP3 Inflammasome Activation Affects Neuroretinal Function in Diabetic Retinopathy
Presented By: Xiaoyu Cai
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HOT TOPIC
5:15 PM - 7:15 PM
Poster # A0428 | Poster Session
Dimitra Skondra, MD, PhD
University of Chicago
Session: Immunobiology: Ocular Surface, Glaucoma and Retinal Degeneration
Germ-Free Laser-Induced Murine Model Shows The Effect Of The Microbial Organ On Choroidal Neovascularization.
Presented By: Hugo Barba

HOT TOPIC
5:15 PM - 7:15 PM
Poster # F0294 | Poster Session
MD Imam Uddin, PhD
Vanderbilt Eye Institute
Session: Imaging of Posterior Segment
Development of an Optical Imaging Probe for Targeted Visualization of NLRP3 Inflammasome in a Mouse Model of Age-Related Macular Degeneration (AMD)
Presented By: Marcell Paguaga

5:15 PM - 7:15 PM
Poster # A0410 | Poster Session
Kevin Chan, PhD
University of Chicago
Session: Neurodegeneration
Diffusion Tensor Imaging of Optic Nerve Integrity In Mouse Models of E50K Optineurinmutation and Optineurin Deficiency.
Presented By: Carlos Parra

6:06 PM - 6:23 PM
4AB Mile High Ballroom | Paper Session
Michael Girard, PhD
Singapore Eye Research Institute, Singapore National Eye Centre
Session: Glaucoma: Molecular, Biochemical and Biomechanical Mechanisms
AI-based Clinical Assessment of Optic Nerve Head Robustness from 3D Optical Coherence Tomography Imaging
Co-PI’s: Aung Tin, MBBS, PhD & Monisha Nongpiur, MBBS, PhD
Presented By: Fabrian Braeu

HOT TOPIC
6:40 PM - 6:57 PM
2B/3B Mile High Ballroom | Paper Session
Philip Williams, PhD
Washington University
Session: Neuron Rescue and Regeneration in the Retina
Retinal Ganglion Cell Resilience to Injury Indicated by Cytoplasmic [Ca2+] levels
Presented By: Sean McCracken

Monday, May 2, 2022

10:00 AM - 12:00 PM
Poster # F0299 | Poster Session
Jeff Mumm, PhD
Wilmer Eye Institute, Johns Hopkins University
Session: Retina Development and Regeneration
Transcriptomic Comparison of Two Selective Retinal Cell Ablation Paradigms in Zebrafish Reveals Shared and Cell-Specific Regenerative Patterns
Presented By: Kevin Emmerich

10:00 AM - 12:00 PM
Poster # A0028 | Poster Session
Dimitra Skondra, MD, PhD
University of Chicago
Session: Transcriptomics, Proteomics, Metabolomics and Systems Biology
Multi-Omics Analysis Reveals Effects of High Fat Diet Induced Gut Dysbiosis on RPE/Choroidal Transcriptome and Microbiome-Transcriptome Associations
Presented By: Jason Zhang

10:00 AM - 12:00 PM
605/607 | Paper Session
Raunak Sinha, PhD
University of Wisconsin School of Medicine and Public Health
Session: Retina Development and Regeneration
Functional Development of Cone Photoreceptors in Human Stem Cell Derived Retinal Organoids
Presented By: Aindrila Saha
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10:34 AM - 12:51 PM
1EF Mile High Ballroom | Paper Session
Jessica Cooke Bailey, PhD
Case Western Reserve University
Session: Glaucoma Genetics
Cross-Ancestry Glaucoma Genetic Risk Score in Hispanic Veterans in the Million Veteran Program
Presented By: Andrea Waksmunski
Co-PI: Jonathan Haines, PhD

11:08 AM - 11:25 PM
2B/3B Mile High Ballroom | Paper Session
Petr Baranov, MD, PhD
Schepens Eye Research Institute/Massachusetts Eye and Ear and Harvard Medical School
Session: Gene and Cell Therapy for Retinal Disease
Masking The “Eat Me” Signal Drastically Increases the Short-Term Survival of Donor Human Retinal Ganglion Cells After Xenotransplantation
Presented By: Monichan Phay

11:25 AM - 11:42 AM
2C/3C Mile High Ballroom | Paper Session
Kimberly Gokoffski, MD, PhD
University of Southern California, Los Angeles
Session: Neuroprotection and Neuroregeneration
Electric Fields Direct Full-Length Optic Nerve Regeneration and Partial Restoration of Visual Function
Presented By: Micalla Peng

12:30 PM - 2:30 PM
Virtual | Poster Session
Jianhai Du, PhD
West Virginia University
Session: Photoreceptor Biology, Protection and Degeneration
Rod Photoreceptor-Specific Deletion of MPC1 Impairs Visual Function with Age-Dependent Retinal Degeneration
Presented By: Rong Xu
Co-PI: Jennifer Chao, MD, PhD

12:30 PM - 2:30 PM
Poster # F0208 | Poster Session
Ye Sun, MD, PhD
Boston Children’s Hospital
Session: Retinal Vascular Diseases
c-Fos Regulates Retinal Angiogenesis Through Modulating Photoreceptor-Released Inflammatory Protein
Presented By: Arthur Fernandes
Co-PI: James Higham, PhD

12:30 PM - 2:30 PM
Poster # F0327 | Poster Session (Virtual)
Xi-Qin Ding, PhD
University of Oklahoma Health Sciences Center
Session: Photoreceptor Biology, Protection and Degeneration
Inhibition of Ryanodine Receptor 1 Reduces Endoplasmic Reticulum (ER) Stress and Promotes ER Protein Degradation in Cyclic Nucleotide-gated Channel Deficiency
Presented By: Enton Lam

12:30 PM - 2:30 PM
Poster # F0340 | Poster Session
Amanda Melin, PhD
University of Calgary
Session: Photoreceptor Biology, Protection and Degeneration
Photoreceptors Modulated Retinal Angiogenesis via SOCS3
Presented By: Enton Lam

12:30 PM - 2:30 PM
Poster # F0436 | Poster Session
Ye Sun, MD, PhD
Boston Children’s Hospital
Session: Photoreceptor Biology, Protection and Degeneration
Photoreceptors Modulated Retinal Angiogenesis via SOCS3
Presented By: Enton Lam

12:30 PM - 2:30 PM
Poster # F0448 | Poster Session
Matthew Veldman, PhD
The Medical College of Wisconsin
Session: Neuroprotection and Neuroregeneration
Srebf2 is Necessary For Axon Regeneration And Visual Recovery Following Optic Nerve Crush In Adult Zebrafish
Presented By: Mengming Hu

12:30 PM - 2:30 PM
Poster # F0448 | Poster Session
Matthew Veldman, PhD
The Medical College of Wisconsin
Session: Neuroprotection and Neuroregeneration
Srebf2 is Necessary For Axon Regeneration And Visual Recovery Following Optic Nerve Crush In Adult Zebrafish
Presented By: Mengming Hu

12:30 PM - 2:30 PM
Poster # F0448 | Poster Session
Matthew Veldman, PhD
The Medical College of Wisconsin
Session: Neuroprotection and Neuroregeneration
Srebf2 is Necessary For Axon Regeneration And Visual Recovery Following Optic Nerve Crush In Adult Zebrafish
Presented By: Mengming Hu
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12:30 PM - 2:30 PM
Poster # A0434 | Poster Session
Kin-Sang Cho, PhD
Schepens Eye Research Institute, Massachusetts Eye and Ear and Harvard Medical School
Session: Neuroprotection and Neuroregeneration
RvD1 Suppresses Microglia Activation and Improved Spatial Vision of Mice with Microbead-Induced Glaucoma

HOT TOPIC
12:47 PM - 1:04 PM
2B/3B Mile High Ballroom | Poster Session
Jonathan Lin, MD, PhD
University of California, San Diego
Session: Stem Cell Models of Retinogenesis and Retinal Disease
Achromatopsia Retinal Organoid Transcriptomes Reveal Increased Gliosis and Dysregulation of Unfolded Protein Response
Presented By: Monica Sophia Diaz-Aguila

1:04 PM - 1:21 PM
205/207 | Paper Session
Glenn C Yiu, MD, PhD
University of California
Session: AMD Translational Research
Rhesus Macaques with Soft Drusen Share Susceptibility Genes with Age-Related Macular Degeneration in Humans
Presented By: Glenn Yiu

1:12 PM - 1:33 PM
4AB Mile High Ballroom | Minisymposium Talk
Robert Johnston, PhD
Johns Hopkins University
Session: Advances and Insights into Retinal Disease, Therapy and Development using Human Retinal Organoids
Specification of Cone Subtypes in Human Retinal Organoids

HOT TOPIC
1:55 PM - 2:12 PM
2C/3C Mile High Ballroom | Paper Session
Jason Meyer, PhD
Indiana University
Session: Stem Cell Models of Retinogenesis and Retinal Disease
Autophagy Dysfunction Represses mTORC1 Signaling Resulting in Neurodegeneration of Retinal Ganglion Cells in Glaucoma
Presented By: Kang-Chieh Huang

3:00 PM - 5:00 PM
Poster # F0369 | Poster Session
Shusheng Wang, PhD
Tulane University
Session: Modeling Inherited Retinal Degeneration
A CRISPR-based inducible system for VEGF repression for AMD
Co-PI: Bo Yu, PhD

3:34 PM - 3:51 PM
2C/3C Mile High Ballroom | Paper Session
Ji Won Bang, PhD
New York University School of Medicine
Session: Photoreceptor Biology, Protection and Degeneration
Cerebrospinal Fluid Dynamics and its Coupling with Global Brain Activity are Altered in Early Glaucoma Patients
Mentor: Kevin Chan, PhD

4:08 PM - 4:25 PM
2C/3C Mile High Ballroom | Paper Session
Alejandra Bosco, PhD
University of Utah
Session: New Ideas in Glaucoma
Schlemm Canal-Targeted Tie2 Knockdown (SC-Tie2 KD) as Mouse Model of Adult-Onset Human Glaucoma

1:15 PM - 1:35 PM
2C/3C Mile High Ballroom | Minisymposium Talk (Virtual)
Ester Reina-Torres, PhD
Imperial College of Science, Technology and Medicine
Session: Segmental Aqueous Humor Outflow and its Role in IOP Regulation
Modulation of Segmental Outflow in the Murine Outflow Pathway
Mentor: Darryl Overby, PhD
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Tuesday, May 3, 2022

10:30 AM - 12:30 PM
Poster # F0371 | Poster Session
Petr Baranov, MD, PhD
Schepens Eye Research Institute/Massachusetts Eye and Ear and Harvard Medical School
Session: Stem Cells and Disease Modeling In Vitro
“Thaw-Wash-Inject” Approach for Cryopreservation and Transplantation Of human Organoid-Derived Retinal Ganglion Cells
Presented By: Christian Akotoye

10:30 AM - 12:30 PM
Poster # F0463 | Poster Session (Virtual)
Xi-Qin Ding, PhD
University of Oklahoma Health Sciences Center
Session: Photoreceptors and Disease
Programing Human iPSC Differentiation into a Cone-rich Cell Population by Targeting Multiple Regulatory Pathways
Presented By: Hongwei Ma

10:00 AM - 12:00 PM
Poster # F0188 | Poster Session
Jianhai Du, PhD
West Virginia University
Session: Retinal Metabolism and Physiology
RPE Utilizes Proline Through Proline Dehydrogenase to Support Retinal Metabolism
Presented By: Siyan Zhu
Co-PI: Deborah Ferrington, PhD

10:30 AM - 12:30 PM
Poster # A0059 | Poster Session (Virtual)
Jeffrey Boatright, PhD
Emory University
Session: Molecular and Biochemical Mechanisms of Ocular Disease
Oral Supplementary Nicotinamide Riboside Treats Several Components of the DBA/2J Murine Model of Pigment Dispersion Glaucoma
Presented By: Ying Li
Co-PI: Ying Li, MD, PhD

10:30 AM - 12:30 PM
Poster # F0377 | Poster Session
Jason Meyer, PhD
Indiana University
Session: Stem Cells and Disease Modeling In Vitro
Induction of Reactivity in Human Pluripotent Stem Cell-Derived Astrocytes and Their Contribution to Retinal Ganglion Cell Degeneration

10:30 AM - 12:30 PM
Poster # A0081 | Poster Session (Virtual)
Jeffrey Boatright, PhD
Emory University
Session: Glaucoma: Biochemistry, Biomechanics and Omics
Systemic Nicotinamide Riboside Treatment Protects Retinal Ganglion Cells in an Aged Optic Nerve Crush Mouse Model
Presented By: Nan Zhang
Co-PI: Ying Li, MD, PhD

1:00 PM - 3:00 PM
Poster # F0416 | Poster Session
Mallika Valapala, PhD
Indiana University
Session: Rpe/Choroid Pathology: Oxidative Stress, Inflammation and Neovascularization
Regulation of Inflammatory Cytokine Expression by the NFAT Signaling Pathway In Retinal Pigment Epithelial Cells (RPE)
Presented By: Hsuan-Yeh Pan
1:00 PM - 3:00 PM
Poster # F0398 | Poster Session
Kapil Bharti, PhD
National Institutes of Health/ NEI
Session: RPE/Choroid Pathology: Oxidative Stress, Inflammation and Neovascularization
Retinal Pigment Epithelium Modulates Endothelial Cell, Fibroblast, and Pericyte Gene Expression Patterns in 3D Bioprinted Tissues
Presented By: Eric Nguyen
Co-PI: Eric Nguyen, PhD

1:00 PM - 3:00 PM
Poster # A0347 | Poster Session
MD Imam Uddin, PhD
Vanderbilt Eye Institute
Session: Developing Molecular Therapies for Inherited Ocular Disease
Inhibition of HIF-1α mRNA Could Regulate Monocyte Functions and Could Inhibit Neovascularization in a Mouse Model of Proliferative Retinopathy
Presented By: Charles Amankwa

1:00 PM - 3:00 PM
Poster # A0088 | Poster Session
Yutao Liu, MD, PhD
Augusta University Research Institute, Inc.
Session: Glaucoma: Biochemistry, Biomechanics and Omics
Response of trabecular meshwork cells to estradiol under TGFβ2- and stretch-induced stress
Presented By: Hannah Youngblood

1:00 PM - 3:00 PM
Poster # A0095 | Poster Session
Yi Hua, PhD
University of Pittsburgh
Session: Glaucoma: Biochemistry, Biomechanics and Omics
Mechanical anisotropy of the equatorial sclera does not concur with its preferred fiber orientation
Mentor: Ian Sigal, PhD

1:00 PM - 3:00 PM
Poster # F0425 | Poster Session
Timothy W Corson, PhD
Indiana University School of Medicine
Session: RPE/Choroid Pathology: Oxidative Stress, Inflammation and Neovascularization
An Improved Method for OCT-based, Murine Laser-Induced Choroidal Neovascularization Lesion Quantification
Presented By: Nathan Jensen

HOT TOPIC
2:08 PM - 2:25 PM
4AB Mile High Ballroom | Paper Session
Michelle Grunin, PhD
Hebrew University of Jerusalem
Session: Molecular Genetics of Ocular Conditions
Spatial Modeling of Variants in Complement Genes Associated with Age-related Macular Degeneration
Mentor: Shai Carmi, PhD

3:00 PM - 5:00 PM
Poster # A0096 | Poster Session
Suchismita Acharya, PhD
University of North Texas Health Science Center
Session: Aqueous Humor Dynamics and Trabecular Meshwork
Hybrid Molecule SA-2 Improve Both Mitochondria Respiration and Glycolysis in Primary Human Trabecular Meshwork Cells
Presented By: Edward Xie

3:30 PM - 5:30 PM
Poster # F0353 | Poster Session
Dimitra Skondra, MD, PhD
University of Chicago
Session: Vitreoretinal Surgery/VR Interface/PVR Drug-Gene Association Analysis to Identify Novel PVR Therapeutics
Presented By: Edward Xie

3:30 PM - 5:30 PM
Poster # A0401 | Poster Session (Virtual)
Ester Reina-Torres, PhD
Imperial College of Science, Technology and Medicine
Session: Aqueous Humor Dynamics and Trabecular Meshwork
The Relationship Between Pressure-Dependent Changes in Outflow Facility and Dimensional Changes in the Anterior Segment during Perfusion of Enucleated Mouse Eyes
Mentor: Darryl Overby, PhD

4:21 PM - 4:38 PM
2C/3C Mile High Ballroom | Paper Session
Petr Baranov, MD, PhD
Schepens Eye Research Institute/Massachusetts Eye and Ear and Harvard Medical School
Session: Pharmacology / Cellular Mechanisms
Multipolar Migration and the SDF1-CXCR4 Axis Direct Human Retinal Ganglion Cell Integration in Mice
Presented By: Jonathan Soucy
BrightFocus-Funded Research at ARVO 2022

Wednesday, May 4, 2022

10:00 AM - 12:00 PM
Poster # F0334 | Poster Session
Jason Meyer, PhD
Indiana University
Session: Stem Cells and Organoids
Enhanced Reproducibility of Retinal Organoids Enables the Analysis of Early Human Retinal Fate Specification
Presented By: Jade Harkin

10:00 AM - 12:00 PM
Poster # A0015 | Poster Session (Virtual)
Douglas Gould, PhD
University of California, San Francisco
Session: Tumor - Diagnosis, Prognosis, and Molecular Mechanism
Col4a1 Mutations Alter Periocular Mesenchyme Cell Migration that may Contribute to Anterior Segment Dysgenesis in Mice
Presented By: Corinna Cozzitorto

10:00 AM to 10:17 AM
4EF Mile High Ballroom | Paper Session
Matthew Van Hook, PhD
University of Nebraska Medical Center
Session: Electroretinography and Disease
Loss of Retinal Ganglion Cell Synaptic Outputs to the Visual Thalamus in the DBA/2J Mouse Model of Glaucoma

11:25 AM - 11:42 AM
2B/3B Mile High Ballroom | Paper Session
Dimitra Skondra, MD, PhD
University of Chicago
Session: Animal Models of Age Related Macular Degeneration
Effects of Long Duration of High-Fat Diet on Gut Microbiota Composition and Laser-Induced Choroidal
Presented By: Urooba Nadeem

HOT TOPIC
11:42 AM - 11:59 AM
2B/3B Mile High Ballroom | Paper Session
Willard Freeman, PhD
Oklahoma Medical Research Foundation
Session: AMD: Animal Models of Age-Related Macular Degeneration
Cell-specific Studies Through Novel Mouse Model Reveal the Transcriptomic Response of Retinal Müller Glia to Aging
Presented By: Ana Chucair-Elliott
Co-PI: Ana Chucair-Elliott, PhD

12:30 PM - 2:30 PM
Poster # F0056 | Poster Session
Robert J Zawadzki, PhD
University of California, Davis
Session: New improvements in imaging and development of biomarkers
In vivo evaluation of Retinal Ganglion Cells (RGCs) in mice using Temporal Speckle Averaging Optical Coherence Tomography (TSA- OCT)
Presented By: Jessica Cho
Co-PI: Pengfei Zhang, PhD

12:30 PM - 2:30 PM
Poster # A0094 | Poster Session (Virtual)
Ke Ning, MD, PhD
Stanford Junior University
Session: Biochemistry and Molecular Biology of the Retina/RPE
IFT88 Mediates Cilia-Associated Wound Repair in Retinal Pigment Epithelium
Mentors: Yang Sun, MD, PhD and Vinit Mahajan, MD, PhD

12:52 PM -1:09 PM
2C/3C Mile High Ballroom | Mini Symposium
Talk
Michael Girard, PhD
Singapore Eye Research Institute, Singapore National Eye Centre
Session: AI: Opportunities for Reverse Translation
Describing the Structural and Biomechanical Phenotype of Glaucoma Using AI
Co-PIs: Aung Tin, MBBS, PhD and Monisha Nongpiur, MBBS, PhD

3:00 PM - 5:00 PM
Poster # F0408 | Poster Session
Davide Ortolan, PhD
National Institutes of Health/ NEI
Session: Pathobiology of AMD
Single Cell Resolution Map of Retinal Pigment Epithelium Helps Discover Subpopulations with Differential Disease Sensitivity
Mentors: Kapil Bharti, PhD and Ruchi Sharma, PhD
BrightFocus-Funded Research at ARVO 2022

3:00 PM - 5:00 PM
Poster # F0417 | Poster Session
Sayan Ghosh, PhD
University of Pittsburgh
Session: Pathobiology of AMD
Crosstalk Between Metabolism and Inflammation in Dry Age-Related Macular Degeneration
Mentor: Debasish Sinha, PhD

3:00 PM - 5:00 PM
1EF Mile High Ballroom | Paper Session (Virtual)
Jianhai Du, PhD
West Virginia University
Session: MD and Retinal Physiology
Sex Matters in Eye And Brain Metabolism: Targeted Metabolomics Reveals Tissue-Specific Sex Difference in Metabolism in Fasted v.s. Fed State
Presented By: Olivia Roby
Co-PI: Jennifer Chao, MD, PhD