

ISER/BrightFocus Glaucoma Symposium Posters

Author Name	Abstract Title
Aftab Taiyab, PhD	Deletion of Transcription Factor AP-2 β from the Developing Periocular Mesenchyme Region Result in Anterior Segment Defects Leading to Glaucomatous Changes
Alireza Karimi	Ocular Biomechanics During Improvised Explosive Device Blast
Aliyeva Sidiga Shakhmar	Influence of Excimerlaser Surgery on Ophthalmometric Indicators
Ana Nicolle Strat, MS	Engineering a 3D Hydrogel System to Study Optic Nerve Head Astrocyte Morphology and Behavior in Response to Glaucomatous Insult
Andrew M. Boal	Astrocyte Gap Junction Protein Cx43 Modulates the Signaling Properties of Mouse Retinal Ganglion Cells
Arina Korneva, PhD	Mechanical Response of the Mouse Astrocytic Lamina is Altered After Treatment with Tryple Enzyme
Ashok Sharma, PhD	Race and Gender Specific Alterations in the Serine Protease Inhibitors in Aqueous Humor from Glaucoma Patients
Avinash Soundararajan	Clusterin Attenuates Profibrotic Responses in Trabecular Meshwork to Modulate Intraocular Pressure
Ayesha Patil, MPH	A Comparative Review on the Relationship Between Abdominal Aortic Aneurysms and Exfoliation Syndrome in Utah
Ayushi Singh, MS	YAP/TAZ Inactivation with Simvastatin Attenuates Steroid-Induced Contraction and Stiffening in a Biomimetic 3D Trabecular Meshwork Hydrogel
Babak N. Safa, PhD	In Vivo Assessment of Iris Sphincter Muscle Traction Using Pupillary Light Reflex and Inverse Finite Element Biomechanical Modeling
Barbara Wirostko MD, FARVO	An Investigation of Prognostic Factors and Predictive Markers of Conversion to Exfoliation Glaucoma in Exfoliation Syndrome
Bindu Kodati, PhD	Novel Peptain for Neuroprotection in Glaucoma
Brandon K. Zimmerman, PhD	Estimating Material Properties of Glaucomatous Eyes Through OCT-Derived Patient-Specific Finite Element Models of the Optic Nerve Head
Breedge Callaghan PhD	Therapeutic Impact of Modified Polyunsaturated Fatty Acids on Oxidative Stress in Normal and Glaucomatous Tenon's Fibroblasts
Cameron A Czerpak	In Vivo Lamina Cribrosa Microstructure Comparing Swept-Source and Spectral-Domain OCT Imaging
Catia Gomes, PhD	Induction of Reactivity in Human Pluripotent Stem Cell-Derived Astrocytes and their Role in Retinal Ganglion Cell Neurodegeneration
Chelsey Doyle, BSc	MIR-17-92 Cluster Induction by TGF β 2 in Human Trabecular Meshwork Cells Identifies MIR-18A as a Potential Therapeutic Agent
Chenna Kesavulu Sugali	The Mechanism of TGF β 2-Wnt Signaling Cross-Inhibition in the Trabecular Meshwork
Chitaranjan Mahapatra, PhD	A Quantitative Study of Transient Receptor Potential Ion Channels' Role in Retinal Ganglion Cell Towards Glaucoma
Christina Nicou	IOP VARIABILITY IN CONSCIOUS RATS
Cydney A. Wong	Comparison of Automated Deep Learning Methods for Assessing Optic Nerve Axons
David J. Mathew MBBS, MS	An Improved Inducible Rodent Glaucoma Model that Exhibits Gradual Increase in Intraocular Pressure and Distinct Inner Retinal Pathology
Deborah Villafranca Baughman, MSc	Glia-Mediated Modulation of Pericyte and Capillary Function in Glaucomatous Optic Neuropathy
Diana C. Lozano	Proliferation is Greater and Peaks Earlier in the Anterior Optic Nerve Head (ONH) Following Controlled Elevation of IOP (CEI)
Emily Saccuzzo	Dynamics of the Glaucoma-Associated Myocilin Olfactomedin Domain
Emine Kubra Bilir	Influence of TM Cell-Derived ECM on the Differentiation of iPSCs into TM cells
Emma K. Geiduschek	Toll-Like Receptor 4 Signaling in Glaucomatous Optic Nerve Head
Fiona McDonnell, PhD	The Role of Exosomes in Extracellular Matrix Homeostasis in Trabecular Meshwork Cells
Gabriela Sanchez Rodriguez	Deep Learning-Based Segmentation of OCT Images Following Retinal Ganglion Cell (RGC) Injury
Guorong Li	Aging Modifies Conventional Outflow Tissue Morphology, Function and Protein Profile in C57Bl/6 Mice
Hailee F. Scelsi	Common Allele Variants of Myocilin: Benign or Possibly Pathogenic?
Haiyan Li	Extracellular Matrix and TGF β 2 Regulate YAP/TAZ Activity in Human Schlemm's Canal Cells
Hang-Jing Wu	Altered Ocular Fibrillin Microfibril Composition in Mice with a Glaucoma-Causing Mutation of ADAMTS10
Hannah Youngblood	Estrogen Signaling in Intraocular Pressure Regulation
Heather Schmitt, PhD	Strain-Dependent Ocular Phenotypes in LOXL1-Knockout Mouse
Heberto Quintero, PhD	Increased Expression of DISC1 Restores Mitochondrial Axonal Transport and Rescues RGC Function in Glaucoma
Hongli Yang	Ocular Pulse Waveform in the ONH Differs Between Glaucomatous (GL) and Glaucoma Suspect (GLS) Eyes in Individuals with Similar Systemic Pulse Waveforms
Ian Pitha MD, PhD	Cyclic Mechanical Strain Mitigates Scleral Fibroblast TGF-Beta Signaling and Allows Migratory Escape from Topographic Confinement
Jade Harkin, MSc	Toward a More Efficient and Reproducible Method for Retinal Ganglion Cell Differentiation in Human Pluripotent Stem Cell-Derived Retinal Organoids
Jadier Colon Vazquez	Retinal Amyloid-Beta (A β) Expression after High Intraocular Pressure (IOP) Conditions
James D. Cole, BS	Long-Term Protection of Retina and Visual Function Using MEK Inhibitor PD0325901 in a Small-Eye Pax6 Mouse Model of Aniridia
Johanna Heimbucher	Collagen Type I Deficiency In Mutant Mice Is Associated With Loss Of Optic Nerve Axons
Jonathan Soucy, PhD	Human Retinal Ganglion Cell Integration is Enhanced Through SDF1 and Netrin1 - Guided Migration in a Mouse Xenotransplantation Model
Joseph Louis Demer, MD, PhD	Repetitive Stress Injury to the Optic Nerve (ON) During Eye Movement in Pathogenesis of Primary Open Angle Glaucoma (POAG)

ISER/BrightFocus Glaucoma Symposium Posters

Author Name	Abstract Title
Joseph M. Holden, BS	Blood-Retinal Barrier Breakdown Precedes Retinal Ganglion Cell Degeneration in Guanylate Cyclase Knockout Mice
Joseph Park	Automated Analysis of Scanning Laser Images During Adduction Tethering Demonstrates Optic Disc Stiffening in Primary Open Angle Glaucoma
Junkai Tan	Evaluation of Two Trabecular Meshwork-Specific Promoters in C3 Transferase Gene Therapy for Lowering Intraocular Pressure
Kang-Chieh Huang	Autophagy Disruption in Human Pluripotent Stem Cell-Derived Retinal Ganglion Cells Downregulates mTOR Signaling Leading to Neurodegeneration
Katherine M. Andersh, MS	Intravitreal Application of TNF and IL1a is Sufficient to Drive Retinal Ganglion Cell Death in Vivo
Kazuya Oikawa, BVSc, PhD	Disease Stage-Dependent Optic Nerve Head (ONH) Molecular Alterations in a Feline Glaucoma Model
Kevin Emmerich	Identification of Factors Regulating Retinal Ganglion Cell Death and Regeneration in a Novel Zebrafish Model
Kristen D. Onos, PhD	Incorporating Genetic Diversity to Improve Alignment of Mouse Models to Human Aging and Glaucoma
Louis-Philippe Croteau, PhD	Investigating the Integration of Human Stem Cell-Derived Retinal Ganglion Cells into the Mouse Retina in Vitro
Luis Sanchez, B.S.	Time-Course Analysis of Human Trabecular Meshwork Single Cell Contraction After a 5-Day Dexamethasone Treatment
Mackenzie D. Martin, PhD	Molecular Architecture and Modifications of Full-Length Myocilin
Magdalena Schneider	Ablation of Scleral TGF-B Signaling Increases Susceptibility to IOP-Induced Optic Nerve Damage
Marie Claes	Chemogenetic Stimulation in the Superior Colliculus to Attenuate Degenerative Pathology in the Murine Microbead Occlusion Model
Markus Spurlok	Transient Intraocular Pressure Fluctuations Drive Neuroinflammation and Retinal Ganglion Cell Dysfunction
Matthew Conley BS	Factors Associated with Progression from Exfoliation Syndrome (XFS) to Exfoliation Glaucoma (XFG) in the Utah Population Database (UPDB)
Meghal Gagrani, MD	Region of Visual Field Loss and Self-Reported Quality of Life (QoL) and Driving Habits in Glaucoma
Michael L. De Ieso, PhD	Caveolin-1 Regulates Trabecular Meshwork Contractile Tone Via PKC and RHO/ROCK Signaling
Michael Patrick Vincent	Expression of the VEGFR3/FLT4 Lymphatic Marker by Schlemm's Canal Endothelial Cells from Normal and Glaucomatous Human Donors
Minh Thu Ma	Development of Recombinant Antibodies for Detecting Multiple Conformational States of Glaucoma-Associated Myocilin
Monichan H. Phay, PhD	Fake it until you make it; Concealing "Eat Me" Signal on Donor Retinal Ganglion Cells to Bypass Neurophagy
Monika Lakk, PhD	Membrane Cholesterol Regulates TRPV4-Dependent Cellular Responses in the Trabecular Meshwork
Myoungsup Sim	Primary Cilium is a Mechanosensor for Mechanical Stress-Induced Autophagy in the Conventional Outflow Pathway
Nana Yaa Nsiah	Prolonged HIF-1a Stabilization Impairs Retinal Metabolism
Nicole Muench	Bax-Dependent Catabolism is Intrinsic to Retinal Ganglion Cell Axons
Nolan R. McGrady, PhD	Diverging Degeneration Profiles of RGC Subtypes: Ocular Hypertension vs Optic Nerve Crush
Odalys Torne, DVM	Outflow Pathway Assessment in a Feline Model of Glaucoma due to LTBP2 Mutation
Oliver Voeking, PhD	Single Cell Transcriptome Analysis of Periocular Mesenchyme During Anterior Segment Development
Olivia Ann Kingston	Glaucomatous Extracellular Matrix does not Hinder Trabecular Meshwork Progenitor Cell Differentiation
Pedro Norat, MD	Efficient Topical Delivery of Antiglaucoma Drugs by Dendrimer Hydrogel Particles for Glaucoma
Philip Mzyk, PhD	A20 Attenuates the Fibrotic Response within the Trabecular Meshwork
Preethi S. Ganapathy, MD PhD	Mechanosensitive Channel Inhibition Attenuates TGFβ2-Induced Actin Cytoskeletal Remodeling and Reactivity in Mouse Optic Nerve Head Astrocytes
Ramesh Kasetti	Impaired Mitochondrial Proteostasis in Myocilin Associated Glaucoma
Ramona Pawlak	Nitric Oxide - a Regulator of Biomechanical Properties and Molecular Pathways in the Outflow Tissues
Rupalatha Maddala, PhD	Role of Septin Cytoskeleton in Trabecular Meshwork Biology and Ocular Hypertension
Ruth A. Kelly	Fibrotic-like Changes in Glaucomatous Schlemm's Canal Endothelial Cells
Sana El Hajji	Molecular Pathways Involved in Insulin-Mediated Retinal Ganglion Cell Dendrite Regeneration in Glaucoma
Sara Al Hussein Al Awamlh, MD	Longitudinal Imaging of Retinal Vasculature in Murine Models of Glaucoma Using OCT-SLO
Sarah Atkinson BSc (Hons), MRes, PhD	Gene and Protein Expression Analysis Following in Vitro Prostaglandin Treatment
Sarah Naguib	Nrf2 in the RGCs Modulates Glaucoma Pathogenesis Onset and Severity
Shayna Sosnowik, DVM	Effects of Laser-Induced Ocular Hypertension on Schlemm's Canal, Intrasccleral Vessels, and the Sclera in Cynomolgus Macaques
Siamak Yousefi, PhD	Single Cell RNA Sequencing Reference Mapping Using Deep Transfer Learning
Somaye Jafari	Finite Element Modeling (FEM) Shows that the Contracting Medial Rectus (MR) Muscle Loads the Optic Disc and Peripapillary Sclera
Sunny Kwok, MS	Lamina Cribrosa Mediates IOP-Related Mechanical Deformation in the Optic Nerve Head: Insights from 3D Ultrasound Elastography
Susannah Waxman	Toward Mapping the Distribution of Pericytes in the Optic Nerve Head
Syed A Zaidi, PhD	Retinal Ganglion Cell Specific Arginase 2 Deletion Preserves Visual Function after Optic Nerve Crush

ISER/BrightFocus Glaucoma Symposium Posters

Author Name	Abstract Title
Tasneem P. Sharma, Ph.D.	Intracranial and Intraocular Pressure Associated Pathogenesis Using the Human Translaminar Autonomous System
Thomas V Johnson, MD, PhD	Structural Engraftment of Transplanted Human Stem Cell Derived Retinal Ganglion Cells in Vivo
Timur Mavlyutov	Progressive Fibrosis and Ultrastructural Changes in the Trabecular Meshwork of a Novel Mouse Model of Glaucoma
Vidisha Goyal	A Reference Optic Nerve (ON) Atlas for Retinal Ganglion Cell (RGC) Axon Morphology in Rats
Vishnu Adi, DO, MPH	Longitudinal Visual Impairment Associated with Aging and E50K Optineurin Mutation is not Observed with Optineurin Deficiency
Vrathasha Vrathasha, PhD	Mitochondrial Transplantation as a Potential Technique to Rescue Retinal Ganglion Cell Function in Optic Neuropathies
William Mayhew	Targeting Chronic ER Stress for Neuroprotection in Glaucoma
Xian-Jie Yang	Promoting Retinal Ganglion Cell Production from Human ESC-Derived Retinal Organoids
Yanhui Ma, PhD	Effects of Naive Use of Prostaglandin Analogues on Pressure-Volume Ratio in Primary Open-Angle Glaucoma
Yi Hua	Modeling 3D Eye-Specific Lamina Cribrosa Oxygenation
Yik Tung Tracy Ling	Machine Learning-based Investigations of Structural Property Effects on Pressure-Induced Strain Responses in Mouse Optic Nerve Head Axons
Yinjie Guo, M.D.	Caspase-8-Mediated Inflammation Triggers both Axon Degeneration and RGC Apoptosis in a Mouse Model of Glaucoma
Yuan Liu, PhD	Hematogenous Macrophages Contribute to Fibrotic Scar Formation After Optic Nerve Crush
Zeinab Rozita Ghassabi, PhD	Retinal Oxygen Metabolism in Healthy and Glaucomatous Subjects