**Day** | **Time** | **Location** | **Session/Posterboard Number** | **Session Type** | **Session Title** | **Duke Presenter/Author**
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**Saturday, April 28** | 8:45 - 9:10 a.m. | Room 316C | Educational Course: Introduction to AMD; Current research and therapeutics | AMD – clinical imaging. Identifying disease, progression and therapeutic endpoints. | Cynthia Toth, MD

**Saturday, April 28** | 9:20 - 9:45 a.m. | Room 316C | Educational Course: Introduction to AMD; Current research and therapeutics | AMD – The translational value of preclinical animal models | Catherine Bowers-Rielean, PhD

**Saturday, April 28** | 10:25-10:40 a.m. | Room 316A | Steroids, NSAIDS, or the use of anti-VEGF, are likely equally effective as GAs for the treatment of CME in inherited retinal diseases | Alessandro Iannaccione, MD, FARVO

**Sunday, April 29** | 8:15 - 10 a.m. | Exhibit Hall | Poster B0317 | Poster Session | Anterior Chamber Blood Cell Differentiation Using Spectroscopic Optical Coherence Tomography | Yiyu Zhao (Duke Med Student)

**Sunday, April 29** | 8:15 - 10 a.m. | Exhibit Hall | Poster C0174 | Poster Session | Axial Position-Based Epidermolysis Improves Intravenous Visualization of Live Volumetric [40] Microscope-Integrated Optical Coherence Tomography (MOCT) | Ruobing Qian, PhD

**Sunday, April 29** | 8:15 - 10 a.m. | Exhibit Hall | Poster C0185 | Poster Session | Use of 3D printing technology in fabricating intraoperative OCT compatible ophthalmic tools | Isaac Bleicher, PhD (Duke BME)

**Sunday, April 29** | 8:15 - 10 a.m. | Exhibit Hall | Poster C0186 | Poster Session | A Neoprotective Specialization for Bone Fide Micronidia in Retinal Degeneration Models. | Daniel Saban, PhD

**Sunday, April 29** | 1:00 - 2:30 p.m. | Room 3014B | SIG | 117 Retinal micronidia in degenerative diseases: Why function matters | Wenlan Zhang, MD

**Sunday, April 29** | 1:00 - 2:30 p.m. | Room 3016A | SIG | Biomarkers and Surrogate Endpoints: Lessons Learnt From Glaucoma | Felipe Miedeiro, MD, PhD

**Sunday, April 29** | 1:00 - 2:30 p.m. | Room 316B | SIG | Workshop: Gender, age and diet as biological variables in animal models | Catherine Bowers-Rielean, PhD

**Sunday, April 29** | 1:00 - 2:45 p.m. | Exhibit Hall | Poster A0008 | Poster Session | Ocular Hypertension in Mice: Dexamethasone Nanoformulations Induced Pentablock Copolymer sGC Stimulators and brolucizumab versus aflibercept in nAMD: 48-Phase III studies of Deficiency of S100A4, a Ca2+-binding protein, Induces Expression of Neuronal and Alzheimer’s Disease Association of APBB2 Links Mechanisms of Neurodegeneration in Glaucoma | Michael Rand, PhD (moderator)

**Sunday, April 29** | 1:00 - 2:45 p.m. | Exhibit Hall | Poster A0235 | Poster Session | AMD Mouse Model Dissociations of the Rho-kinase acrosinoid implant: experience from long-term follow-up during the Multicenter Uveitis Steroid Treatment (MUST) Trial and Follow-up Study Identification of protein components of the red outer segment plasma membrane by label-free protein correlation profiling | Glen Jaffee, MD (contributing author)

**Sunday, April 29** | 1:00 - 2:45 p.m. | Exhibit Hall | Poster B0277 | Poster Session | Automated Gestational Age Estimation through Smartphone Lens Imaging Using Convolutinal Neural Networks and Support Vector Machines Assessing ganglion cell layer topography in human albinism using optical coherence tomography and Alzheimer’s Disease | Anjum Desai, PhD (Duke BME)

**Sunday, April 29** | 3:15 - 5:00 p.m. | Room 320 | Paper Session | Biochemistry and Molecular Biology of AMD Homozygous Mutation in the ESIM02 Gene with Keratocystic Dynamic Anatomic Changes | Sina Farsiu, PhD (contributing author)

**Sunday, April 29** | 3:15 - 5:00 p.m. | Room 312 | Paper Session | 148 Keratoconus: Corneal Biomechanics and Imaging Development of microscopeintegrated optical coherence tomography Measured Using Intraoperative OCT | Brenton Keller, PhD (Duke BME)

**Monday, April 30** | 8:15 - 10.00 a.m. | Room 314 | Paper Session | Discoveries in Glaucoma and Associated Endophenotypes Deficiency of S100A4, a Cal2+ binding protein, Induces Expression of Neuronal S100A4 and the Retinal Specific Transcriptome in mouse lens | Rupalatha Madhala, PhD

**Monday, April 30** | 8:15 - 10.00 a.m. | Room 316C | Paper Session | 211 Signaling and Cell Biology Experience and Outcomes of Pneumatic Retinopathy Performed by OCT-Guided Cooperative Dehiscence of Ellipsoid Zone Defects in Optical Coherence Tomography | Rupalatha Madhala, PhD

**Monday, April 30** | 8:15 - 10.00 a.m. | Ballroom A | 214 Deep Learning Highlights Development of microscopeintegrated optical coherence tomography [MOCT] generated topography maps for corneal astigmatic axis detection | Jessica Loo, PhD (Duke BME)

**Monday, April 30** | 8:15 - 10.00 a.m. | Exhibit Hall | Poster B0025 | Poster Session | Real-time Corneal Segmentation and 3D Needle Tracking in Intracranial OCT | Mark Dravilos, PhD (Duke BME)

**Monday, April 30** | 8:15 - 10.00 a.m. | Exhibit Hall | Poster B0049 | Poster Session | Development of microscopeintegrated optical coherence tomography Experience and Outcomes of Pneumatic Retinopathy Performed by VitreoRetinal Interface and Retinal Detachment | Brenton Keller, PhD (Duke BME)

**Monday, April 30** | 8:15 - 11.00 a.m. | Room 311 | Paper Session | Detachment Vitreosensory Feilows in the United States Survival and Retinal Specific Transcriptome in mouse lens Phase III studies of Ibrulizumab versus aflibercept in hammd: 48-week primary and key secondary outcomes from HAIR/HARKER | Rupalatha Madhala, PhD

**Monday, April 30** | 9:00 - 9:15 a.m. | Room 316C | Paper Session | Signaling Cell Biology Experience and Outcomes of Pneumatic Retinopathy Performed by Vitreosensory Feilows in the United States Survival and Retinal Specific Transcriptome in mouse lens Phase III studies of Ibrulizumab versus aflibercept in hammd: 48-week primary and key secondary outcomes from HAIR/HARKER | Rupalatha Madhala, PhD

**Monday, April 30** | 11:15 a.m. - 1:00 p.m. | Ballrooms B/C | 236 AMD and Anti-VEGF sSCG Stimulators and Trabeclar Meshwork Biology | Glenn Jaffee, MD

**Monday, April 30** | 11:15 a.m. - 1:00 p.m. | Exhibit Hall | Poster A0025 | Poster Session | Pentablock Gopolymer | Irin Navarro, PhD

**Monday, April 30** | 11:15 a.m. - 1:00 p.m. | Exhibit Hall | Poster A0335 | Poster Session | Dexamethasone Nanofomulations Induced Dular Hypertension in Mice | Guoshu Li, PhD

**Monday, April 30** | 11:15 a.m. - 1:00 p.m. | Exhibit Hall | Poster A0258 | Poster Session | Retinal-specific polygonal network based detection of cones in retinomodular adaptive optics scanning light opticalmoscopic images of achromatopsia | David Carefare, PhD (Duke BME)
Monday, April 30
11:15 a.m. - 1:00 p.m. Exhibit Hall Poster B0300 Poster Session
Longitudinal Structure/ Function Correlation Between Micropereometry and OCT Imaging in Type 2 Macular Telengiectasia (MacTel)
Elenora Lad, MD, PhD; Glen Jefferie, MD, Sina Farsiu, PhD (Contributing Authors)

Monday, May 1
8:15 - 10:00 a.m. Room 312 Poster Session Phase 2 Trial of Glinary Neurotrophic Factor for Macular Telangiectasia Comparison of Retinal Vasculature and Neurodegenerative Changes among Alzheimer’s disease, Mild Cognitive Impairment, and Controls
Ping Yang, MD; Victor Perez, MD and Daniel Saban, PhD (moderators)

Tuesday, May 2
8:15 - 10:00 a.m. Room 316B Poster Session Tear leukocyte phenotyping in meibomian gland dysfunction by large parameter flow cytometry Calponin-3 Regulated Lens Epithelial Contractile Activity Induces Fibrogenic Activity via Yap/Tal1 Transcriptional Activation
Daniel R. Salan, PhD

Wednesday, May 3
8:15 - 10:00 a.m. Room 311 Paper Session Differentiating retinal detachment and retinoschisis using handheld optical coherence tomography in stage 4 retinopathy of prematurity
Xu Chen, MD, PhD

Wednesday, May 3
8:15 - 10:00 a.m. Room 311A Paper Session Retinopathy of Prematurity 409 Myopia prevalence, progression
Anthony Kuo, MD (moderator)

Wednesday, May 3
8:15 - 10:00 a.m. Room 316 Poster Session 459 Optical Coherence Tomography and Ophthalmic Surgery: New Visualizations, Functional Analysis, and Why do Some Glaucomatous Eyes Lose a Lot More Nerve Tissue than Others by the Time of First Appearance of a Visual Field Defect?
Cindy Skalak

Wednesday, May 3
1:30 - 3:00 p.m. Room 312 Enabling Robotic Assistance SIG
Anthony Kuo, MD (moderator)
Wednesday, May 3

11:15 - 1:00 p.m. Room 312 Poster B0132 Poster Session

Cross-talk between autophagy and TGF-β signaling in human trabecular meshwork cells
Dan Stamer, PhD (contributing author)

11:15 - 1:00 p.m. Room 320 Poster Session

Segment Imaging of the Cytoskeleton and ECM of TGFβ2-treated Trabecular Meshwork and Schlemm’s canal cells
Cynthia Toth, MD

11:15 - 1:00 p.m. Exhibit Hall Poster B0134 Poster Session

Dysregulation of the Autocrine LPA Signaling Axis In the Aqueous Humor of Human Glaucoma Patients
Palma B. Liton, PhD

11:15 - 1:00 p.m. Exhibit Hall Poster B1109 Poster Session

Homeostatic Role for GPELA5 in Modulating Intracranial Pressure (IOP)
Dan Stamer, PhD (contributing author)

11:15 - 1:00 p.m. Exhibit Hall Poster B0148 Poster Session

Semi-Automated Segmentation of the Retinal Reflective Foci on Optical Coherence Tomography
Dan Stamer, PhD (contributing author)

11:15 - 1:00 p.m. Exhibit Hall Poster O2113 Poster Session

A Structural and Functional Machine Learning Classifier Improves Prediction of Patient-Reported Disability in Glaucoma
Sina Farsi, PhD (contributing author)

3:30 - 5:15 p.m. Room C 476 Structure-Function Relationships Paper Session

What amount of visual field loss is associated with visual impairment in glaucoma?
Sally Ong, MD

3:30 - 5:15 p.m. Room C 477 Clinical Posterior Segment Imaging Paper Session

The Relationship Between Machine Learning-Derived Patterns of Visual Field Loss and Patient-Reported Disability in Glaucoma
Anna G. Ogata, PhD

3:30 - 5:15 p.m. Room C 478 Clinical Posterior Segment Imaging Paper Session

The relationship of self-report and medication possession with success of glaucoma medication administration
Aaron Heim (Duke Med Student) Julia Roxahl, MD faculty mentor

3:30 - 5:15 p.m. Exhibit Hall Poster B0030 Poster Session

Morphologic changes in the optic nerve head of eyes with central retinal vein occlusion treated with multiple intravitreal injections
Mehin Ali, MD

3:30 - 5:15 p.m. Exhibit Hall Poster B0102 Poster Session

The impact and implication of a Fowke-Invoking Intraocular Hemorrhage in Patients with Central Retinal Vein Occlusion
Mark Gaerfli-Isen, MD

3:30 - 5:15 p.m. Exhibit Hall Poster B0184 Poster Session

Longitudinal progression of visual function metrics in early and intermediate age-related macular degeneration
Atalie Thompson, MD

3:30 - 5:15 p.m. Exhibit Hall Poster B0185 Poster Session

Longitudinal progression of visual function metrics in early and intermediate age-related macular degeneration
Daniel R. Saban, PhD (contributing author)

3:30 - 5:15 p.m. Exhibit Hall Poster B0341 Poster Session

Non-invasive Drug Delivery of Nanoparticles for the Treatment of Glaucoma Directly Targeting Schlemm’s Canal and Trabecular Meshwork
Molly Walsh, MD

3:30 - 5:15 p.m. Exhibit Hall Poster A0662 Poster Session

Dynamic Focusing Spiral Scan OCT for High Resolution, Wide Field, Corneal and Anterior Chamber Imaging
Yuxiao Wei (Duke BME)

3:30 - 5:15 p.m. Exhibit Hall Poster A0115 Poster Session

Field Loss and Patient-Reported Disability Machine Learning-Derived Patterns of Visual Function Metrics in Early and Intermediate Age-Related Macular Degeneration
Nina G. Ogata, PhD

3:30 - 5:15 p.m. Exhibit Hall Poster A0116 Poster Session

The Impact and Implication of a Fowke-Invoking Intraocular Hemorrhage in Patients with Central Retinal Vein Occlusion
Mark Gaerfli-Isen, MD

3:30 - 5:15 p.m. Exhibit Hall Poster A0128 Poster Session

Longitudinal progression of visual function metrics in early and intermediate age-related macular degeneration
Atalie Thompson, MD

3:30 - 5:15 p.m. Exhibit Hall Poster A0238 Poster Session

Longitudinal progression of visual function metrics in early and intermediate age-related macular degeneration
Daniel R. Saban, PhD (contributing author)

3:30 - 5:15 p.m. Exhibit Hall Poster A0268 Poster Session

Non-invasive Drug Delivery of Nanoparticles for the Treatment of Glaucoma Directly Targeting Schlemm’s Canal and Trabecular Meshwork
Molly Walsh, MD

3:30 - 5:15 p.m. Exhibit Hall Poster A0937 Poster Session

Dynamic Focusing Spiral Scan OCT for High Resolution, Wide Field, Corneal and Anterior Chamber Imaging
Yuxiao Wei (Duke BME)

3:30 - 5:15 p.m. Exhibit Hall Poster C0028 Poster Session

Using a Novel Anterior Segment Optical Coherence Tomography (AG-OCT) Method to Assess Iridocorneal Angle Dysregulation after Suprachoroidal Injection of C57-TA
Felipe Medeiros, MD, PhD (contributing author)

3:30 - 5:15 p.m. Exhibit Hall Poster C1156 Poster Session

Using a Novel Anterior Segment Optical Coherence Tomography (AG-OCT) Method to Assess Iridocorneal Angle Dysregulation after Suprachoroidal Injection of C57-TA
Felipe Medeiros, MD, PhD (contributing author)

3:30 - 5:15 p.m. Exhibit Hall Poster O2192 Poster Session

Dysregulated Inflammation in the Posterior Segment with Iridocorneal Angle Dysregulation
Theodore Dubowsky, PhD (Duke BME)

3:30 - 5:15 p.m. Exhibit Hall Poster O2192 Poster Session

Dysregulated Inflammation in the Posterior Segment with Iridocorneal Angle Dysregulation
Theodore Dubowsky, PhD (Duke BME)