University of Iowa Department of Ophthalmology and Visual Sciences
Presentations and Posters at ARVO 2019

Saturday, April 27
8 AM - 4:30 PM. Michael Abramoff, Michael Chiang, Daniel SW Ting, Tien Wong, Rajat Agrawal, Susan Orr, Arthur Shedden. Artificial Intelligence – from benchtop to bedside. Education Course. Location: West 211

8:20 AM - 8:35 AM. Michael Abramoff. General Introduction on AI in healthcare. Importance of differentiating different types of AI, including autonomous and assistive, as well as the implications for patient safety, efficacy, and clinical implementation. Education Course. Location: West 211


Sunday, April 28

3 PM - 4:45 PM. Kelly Mulfaul, Joseph Giacalone, Kathleen Chirco, Shemin Zeng, Allison Songstad, Dalyz Ochoa, Jeaneen Andorf, Heather Daggett, Edwin Stone, Budd Tucker, Robert Mullins. Choroidal Endothelial cells synthesize CFH locally to protect against complement mediated injury. Poster # A0347. Location:

3 PM - 4:45 PM. Elliott Sohn, Chunhua Jiao, Xiuying Liu, Weize Sun, Robert Mullins. Visualization of mouse choroidal and retinal vasculature using fluorescent tomato lectin perfusion. Poster # A0355. Location: West Exhibition Hall

3 PM - 4:45 PM. Robert Mullins (moderator), Baerbel Rohrer (moderator). AMD Pathogenic Mechanisms. Poster Range: A0321 - A0350. Location: West Exhibition Hall

Monday, April 29
8:15 AM - 10 AM. Christopher Fortenbach, Steven Whitmore, Ian Han. Spectral-Domain Optical Coherence Tomography Analysis of Retinal Layers in Autoimmune Retinopathy. Poster # A0354. Location: West Exhibition Hall

8:15 AM - 10 AM. Stephanie Lynch, James Folk, Michael Abramoff. Autonomous artificial intelligence (AI) reliably detects diabetic retinopathy. Poster # A0221. Location: West Exhibition Hall

Updated 4/4/19


8:45 AM - 9 AM. Oliver Gramlich, Alexander Brown, Kyle Gonsalves, Randy Kardon. Inhibition of Hif1 Signaling and Increased Lipid Metabolism are Associated with Retinal Ganglion Cell Protection in a Mouse Model of Multiple Sclerosis. Paper # 1395. Location: West 221/222


4 PM - 5:45 PM. Karam Alawa, Elaine Han, Mohamed Sayed, Alejandro Arboleda, Heather Durkee, Mariela Aguilar, Ryan Nolan, Richard Lee. Low-cost, smartphone based frequency doubling technology visual field testing using virtual reality. Poster # A0645. Location: West Exhibition Hall


4 PM - 5:45 PM. Randy Kardon (moderator). Idiopathic Intracranial Hypertension Dementia and Neurodegenerative Disorders. Poster Range: A0035 - A0055. Location: West Exhibition Hall


7 PM - 9:30 PM. Iowa Eye Reception @ ARVO 2019. Location: Rogue Kitchen & Wetbar, Convention Centre Location, 200 Burrard Street. RSVP to Joe Schmidt, joel-schmidt@uiowa.edu.

Tuesday, April 30

8:45 AM - 10:30 AM. Lin Cheng, Matthew Cring, Markus Kuehn. Modeling oculodentodigital dysplasia syndrome using human induced pluripotent stem cells. Poster # A0049. Location: West Exhibition Hall

8:45 AM - 10:30 AM. John Fingert, Carly van der Heide, Jessica Cooke, Ben Roos, Ankur Jain, Kathy Rodine, Robert Mullins, Budd Tucker. Clinical, molecular genetic, and functional analysis of a pedigree with a novel dominant optic atrophy mutation. Poster # A0243. Location: West Exhibition Hall

Updated 4/4/19

8:45 AM - 10:30 AM. Matthew Miller, Jessica Fick, Jeremy Hoffmann, Jessica Penticoff, Robert Mullins, Edwin Stone, Budd Tucker. **North Carolina Macular Dystrophy: Causes and Consequences of Gene Dysregulation.** Poster # A0033. Location: West Exhibition Hall

8:45 AM - 10:30 AM. Jessica Cooke, Cathryn Cranston, Elizabeth Kennedy, Adam Deluca, S. whitmore, Todd Scheetz, Robert Mullins, Edwin Stone, Budd Tucker. **Variation in retinal differentiation capacity between patient derived hiPSC lines.** Poster # A0045. Location: West Exhibition Hall


11:45 AM - 12:00 PM. Luke Wiley, Emily Kaalberg, Chunhua Jiao, Robert Mullins, Edwin Stone, Budd Tucker, Ian Han. **Characterizing the immune response to helper-dependent adenovirus in the rat retina.** Poster # A0179. Location: West Exhibition Hall

11:45 AM - 12:00 PM. Poppy Datta, Brandon Hendrickson, Seongjin Seo. **Effective arrest of retinal degeneration depends on the timing of gene restoration in a BBS17 mouse model.** Poster # A0165. Location: West Exhibition Hall

11:45 AM - 12:00 PM. Yahila Permeswaran, Jui-Kai Wang, Randy Kardon, Mona Garvin. **An En-Face OCT Registration Approach for Locating the Center of Bruch’s Membrane Opening in Longitudinal Papilledema Cases.** Poster # B0007. Location: West Exhibition Hall

11:45 AM - 12:00 PM. Jessica Skeie, Benjamin Aldrich, Anna Wilcox, Gregory Schmidt, Cynthia Reed, Mark Greiner. **Metabolic Optimization of Endothelial Keratoplasty Graft Tissue with Coenzyme Q10.** Poster # B0502. Location: West Exhibition Hall

11:45 AM - 12:00 PM. Samuel Johnson, Mohammad Shafkat Islam, Jui-Kai Wang, Thurtell Matthew, Randy Kardon, Mona Garvin. **Deep-Learning-Based Estimation of Regional Volumetric Information from 2D Fundus Photography in Cases of Optic Disc Swelling.** Poster # B0011. Location: West Exhibition Hall

11:45 AM - 12:00 PM. Ajay Kuriyan, Elliott Sohn (moderator). **DME anti-VEGF I.** Poster Range: B0148 - B0178. Location: West Exhibition Hall

11:45 AM - 12:00 PM. Arlene Drack (moderator). **Neuro-Ophthalmology: Genetics and Investigational modalities.** Poster Range: B0001 - B0019. Location: West Exhibition Hall

2:45 PM - 4:30 PM. Seongjin Seo, Poppy Datta, Brandon Hendrickson. **Loss of CEP290 causes accumulation of inner segment plasma membrane proteins in the outer segment.** Poster # A0479. Location: West Exhibition Hall
2:45 PM - 4:30 PM. Nicole Tatro, Ian Andrews, Terry Braun, Stephen Russell. **Navigation Assistance From the Low-Vision Enhancement Optoelectronic (LEO) Belt.** Poster # B0075. Location: West Exhibition Hall

2:45 PM - 4:30 PM. Jessica Skeie (moderator). **Corneal Development and Cell Differentiation.** Poster Range: B0466 – B0475. Location: West Exhibition Hall

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### Wednesday, May 1

8:15 AM - 10 AM. Sally Ong, Marguerite Linz, Ian Han, Adrienne Scott. **Examination of Retinal Thickness, Vessel Density and Foveal Avascular Zone Size Using Optical Coherence Tomography Angiography (OCTA) in Children with Sickle Cell Disease.** Poster # A0553. Location: West Exhibition Hall

9:45 AM - 10 AM. Brittmi Scruggs, Sajag Bhattarai, Ioana Cherascu, Megan Helms, Adisa Salesevic, Joseph Laird, Sheila Baker, Budd Tucker, Arlene Drack. **AAV2/4-RS1 gene therapy in the retinoschisin knockout mouse model of X-linked retinoschisis.** Paper Session #4212. Location: Room East 8&15

10:15 AM - 12 PM. Kent Small, Benjamin Bakall, Edwin Stone, Robert Wiggins, Nitin Udar, Steven Agemy, Fadi Shaya. **Best Disease is a Phenocopy of North Carolina Macular Dystrophy (NCMD / MCDR1).** Poster # A0504. Location: West Exhibition Hall

10:15 AM - 12 PM. Nikolai Artemyev, Liping Yu, Ravi Yadav. **Role of the TPR-domain of AIPL1 in its function as PDE6 chaperone.** Poster # A0253. Location: West Exhibition Hall

10:15 AM - 12 PM. Donny Suh, Randy Kardon, Steven Laurie, Tonia Rex (moderators). **Optic Neuropathy.** Paper Session. Location: West 221/222

10:15 AM - 12 PM. Lindy Brastrom, Soma Dash, C. Scott, Deborah Dawson, Salil Lachke, Diane Slusarski. **RNA binding proteins in eye development: rbm24a regulates sox2 and leads to microphthalmia and visual processing defects in zebrafish.** Poster # A0273. Location: West Exhibition Hall

10:15 AM - 12 PM. Stephen Russell, Albert Maguire, Jean Bennett, Paulo Falabella, Elliott Sohn, Vinit Mahajan, Daniel Chung, Kathleen Reape, Katherine High. **Visual Function Questionnaire Responses in the Voretigene Neparvovec Phase 3 Trial.** Poster # A0378. Location: West Exhibition Hall

12:25 PM -12:40 PM. Budd Tucker. **Promise and Challenges of CRISPR for Curing Heritable Blindness.** Workshop Location: West 223/224

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### Thursday, May 2

8 AM - 9:45 AM. Ankur Jain, Tasneem Sharma, Steven Whitmore, Todd Scheetz, Abbot Clark, Budd Tucker, John Fingert. **Characterization of gene expression profiles of cultured human primary trabecular meshwork cells, transformed cell lines and human skin fibroblasts.** Poster # A0023. Location: West Exhibition Hall

8 AM - 9:45 AM. Andrew Voigt, S. whitmore, Megan Riker, Katayoun Varzavand, Todd Scheetz, Edwin Stone, Budd Tucker, Robert Mullins. Transcriptional comparison of developing and developed human macular retina and RPE-choroid. Poster # A0507. Location: West Exhibition Hall

8 AM - 9:45 AM. Todd Scheetz, Andrew Voigt, Adam Deluca, Erin Burnight, S. whitmore, Budd Tucker, Edwin Stone, Robert Mullins. What makes the fovea so special?. Poster # A0535. Location: West Exhibition Hall

