

UAB Department of Ophthalmology and Visual Sciences

2022 ARVO Presenters

Poster Abstract/Presentation

Paper Abstract/Presentation

Minisymposium Talk

Saturday, April 30

9:00 - 11:00 a.m.

Brian Samuels, MD, PhD (moderator)

Cell-based therapies for vision restoration

Sunday, May 1

1:15 - 3:15 p.m.

Thomas Swain, PhD

Associations of rod-mediated dark adaptation measures in older adults without AMD or with early or intermediate AMD, baseline results

Author Block: Thomas Swain, Gerald McGwin, Mark Clark, Christine Curcio, Cynthia Owsley

Tarushi Tanaya

Impact of Cataract Surgery on Rod-Mediated Dark Adaptation in Older Adults

Author Block: Tarushi Tanaya, Andreas Berlin, Thomas Swain, Gerald McGwin, Mark Clark, Michael Callahan, Virginia Lolley, Jason Swanner, Christine Curcio, Cynthia Owsley

Mariana DuPont, PhD

Retinal vessel changes during early-stage diabetic retinopathy

Author Block: Mariana DuPont, Kara Kichler, Robert Mames, Robert Moorthy, Maria Grant

3:45 - 5:45 p.m.

Maria Grant, MD (on behalf of Sandra Hammer)

Intermittent fasting prevents cholesterol accumulation, diabetic retinopathy

Author Block: Sandra Hammer, Maria Grant, Julia Busik

Seth Fortmann, PhD

Retinal ischemia induces rapid and reversible histone hypermethylation

Author Block: Seth Fortmann, Maria Grant

Sunday, May 1 (cont.)

4:53 p.m. - 5:10 p.m.

Mustapha El Hamdaoui

Scleral Crosslinking Using Genipin Can Compromise Retinal Structure and Function in Tree Shrew Eyes

Author Block: Mustapha El Hamdaoui, Alexander Levy, Aaron Stuber, Christopher Girkin, Timothy Kraft, Brian Samuels, Rafael Grytz

6:15 - 8:15 p.m.

Christine Curcio, PhD (on behalf of Andreas Berlin)

Optical coherence tomography angiography of type 3 macular neovascularization, a clinicopathologic correlation

Author Block: Andreas Berlin, Diogo Cabral, Ling Chen, Jeffrey Messinger, Chandrakumar Balaratnasingham, Randev Mendis, Daniela Ferrara, K Bailey Freund, Christine Curcio

Nathan Fischer, MD

Quantitative autofluorescence is not associated with early and intermediate age-related macular degeneration in pseudophakic eyes of the ALSTAR2 baseline cohort

Author Block: Nathan Fischer, Andreas Berlin, Mark Clark, Thomas Swain, Gerald McGwin, Kenneth Sloan, Jason Crosson, Cynthia Owsley, Christine Curcio

Charles Evers III

What are the smallest clinically visible drusen in aging and age-related macular degeneration (AMD)? A histology and fluorescein angiography study

Author Block: Charles Evers III, Ling Chen, Jeffrey Messinger, Diogo Cabral, Rosa Dolz-Marco, K Bailey Freund, Christine Curcio

Sunday, May 1 (cont.)

7:06 - 7:23 p.m.

Cynthia Owsley, PhD

A Conceptual Framework for Visual Function Impairment from Normal Aging to Early and Intermediate AMD: ALSTAR2 Cross-sectional Results

Author Block: Cynthia Owsley, Thomas Swain, Gerald McGwin, Mark Clark, Jason Crosson, Christine Curcio

Andreas Pollreisz

Three-dimensional reconstruction of human retinal pigment epithelium (RPE) permits a novel view of the RPE – photoreceptor outer segment (OS) interface

Author Block: Andreas Pollreisz, Aleksandra Sedova, Maximilian Lindell, Zachary Arsenault, Orin Packer, Deepayan Kar, Yeon Kim, Kenneth Sloan, Ursula Schmidt-Erfurth, Mike Marsh, Christine Curcio, Dennis Dacey

Monday, May 2

1:30 - 3:30 p.m.

Shervonne Poleon, PhD

Perceived utility of intervention strategies for improving medication adherence in glaucoma

Author Block: Shervonne Poleon, Lyne Racette

Nouran Sabbagh

White coat adherence in primary open-angle glaucoma

Author Block: Nouran Sabbagh, Shervonne Poleon, Lyne Racette

2:39 - 2:55 p.m.

Paul Gamlin, PhD

Neural control of vergence eye movements in primates

Author Block: Paul D. Gamlin

4:00 - 6:00 p.m.

Lindsay Rhodes, MD, MSPH

The AL-SIGHT Program: evaluating change in patient knowledge about glaucoma and attitudes about eye care

Author Block: Lindsay Rhodes, Ellen Antwi-Adjei, Thomas Swain, Gerald McGwin, Angela Harbour, Shilpa Register, Irfan Asif, Christopher Girkin, Cynthia Owsley

Tuesday, May 3

2:00 - 4:00 p.m.

Dongfeng Cao

Human photoreceptor mitochondria (PR-Mit) are molecularly unique in healthy aged retina and outer retinal tubulation (ORT) of age-related macular degeneration (AMD)

Author Block: Dongfeng Cao, Jeffrey Messinger, Deepayan Kar, Thomas Ach, Christine Curcio

12:38 - 12:55 p.m.

Ram Prasad

Maintenance of intestinal ACE2 minimizes the risk of developing diabetic retinopathy in type 1 diabetes

Author Block: Ram Prasad, Jason Floyd, Bright Asare-Bediako, Dibyendu Chakraborty, Yvonne Adu-Agyeiwaah, Angela Harbour, Qiuhong Li, Maria Grant

12:55 - 1:12 p.m.

Maria Grant, MD

Intravitreal administration of AAV2-SIRT1 reverses diabetic retinopathy (DR) in a murine model of type 2 diabetes (T2D)

Author Block: Maria Grant, Yvonne Adu-Agyeiwaah, Cristiano Vieira, Bright Asare-Bediako, Sandra Hammer, Sergio Li Calzi, Julia Busik

2:00 - 4:00 p.m.

J. Crawford Downs, PhD

Biomechanics of the laminar Load-bearing and Neural Tissues with Body Position Change

Author Block: J Crawford Downs, Seyed Rahmati, Reza Razaghi, Christopher Girkin, Alireza Karimi

Ellen Antwi-Adjei

The AL-SIGHT Program: Participant Satisfaction in Year 1

Author Block: Ellen Antwi-Adjei, Thomas Swain, Gerald McGwin, Angela Harbour, Shilpa Register, Irfan Asif, Christopher Girkin, Cynthia Owsley, Lindsay Rhodes

2:00 - 4:00 p.m.

Bright Asare-Bediako

Differential Recruitment of Hematopoietic Cells into the Injured RPE/Choroid

Author Block: Bright Asare-Bediako, Sergio Li Calzi, Yvonne Adu-Agyeiwaah, Jason Floyd, Mariana DuPont, Maria Grant

Tuesday, May 3 (cont.)

2:00 - 4:00 p.m.

Alireza Karimi

Biomechanics of Human Trabecular Meshwork in Healthy and Glaucoma Eyes via Dynamic Schlemm's Canal Pressurization

Author Block: Alireza Karimi, Seyed Mohammadali Rahmati, Reza Razaghi, J Crawford Downs, Ruikang K Wang, Murray Johnstone

Arthur DeCarlo, DDS, PhD

GABAergic but not Glutamatergic Modulators Microinjected into the Suprachiasmatic Nucleus Elevate IOP

Author Block: Arthur DeCarlo, Brian Samuels

Lyne Racette, PhD (moderator)

Visual Fields and Psychophysics

Wednesday, May 4

11:00 a.m. - 1:00 p.m.

Brian Samuels, MD, PhD (moderator)

Clinical studies and trials

Yvonne Adu-Agyeiwaah

Oral administration of alpha-cyclodextrin reverses diabetic retinopathy in db/db mice

Author Block: Yvonne Adu-Agyeiwaah, Sandra Hammer, Cristiano Vieira, Bright Asare-Bediako, Jason Floyd, Mariana DuPont, Ram Prasad, Sergio Li Calzi, Julia Busik, Maria Grant

Dawn DeCarlo, OD, PhD

Factors influencing reading speed in pediatric vision impairment

Author Block: Dawn DeCarlo, Anne Caroline Durena, Liyan Gao, MiYoung Kwon

2:36 - 2:55 p.m.

Mahmoud KhalafAllah

Longitudinal thickness changes of peripapillary tissues during high myopia development in juvenile tree shrews

Author Block: Mahmoud KhalafAllah, Preston Fuchs, Fred Nugen, Mustapha El Hamdaoui, Alexander Levy, Brian Samuels, Rafael Grytz

4:00 - 6:00 p.m.

Deepayan Kar

Morphology of the human retinal pigment epithelium (RPE) basal transport complex in fovea and parafovea revealed by volume electron microscopy

Author Block: Deepayan Kar, Orin Packer, Yeon Kim, Andreas Pollreisz, Dennis Dacey, Christine Curcio