



**Department of Ophthalmology  
and Visual Sciences**  
UNIVERSITY OF WISCONSIN  
SCHOOL OF MEDICINE AND PUBLIC HEALTH

**The Association for Research in Vision and Ophthalmology (ARVO) 2019 Department Activities**

**SUNDAY, APRIL 28, 2019**

<b>Time</b>	<b>Main Session</b>	<b>Type</b>	<b>#</b>	<b>Poster/Paper Title</b>	<b>Author(s)/Moderator(s)</b>	<b>Speaker/s</b>	<b>Location</b>
08:00 AM - 09:45 AM	10: AMD screening, risk factors, and consequences	Poster	A0130	Mail-based Stool Collection in Women with and without Age-Related Macular Degeneration (AMD)	Amy Millen, Kristen Hall, Kelly Kamm, Zhe Liu, Barbara Krajewski, Jean Wactawski-Wende, Gareth Lema, Michael Buck, Rachael Hageman Blair, Yijun Sun, Daniel McSkimming, Julie Mares	Amy Millen	West Exhibition Hall
08:00 AM - 09:45 AM	12: AMD anti-VEGF II	Poster	A0307	Chronic Nonclinical Ocular Toxicity Study of KSI-301 Demonstrates Tolerability after Intravitreal Administration in Cynomolgus Monkeys	John Sinclair, Hong Liang, Zachary Antonio, Paul Miller, Avery Tolosa, Joel Naor, Leah Quarberg, Alok Sharma, Xiaojian Huang, Janine Lu, William Ngo, Dan Dang, Frances Clemo, James Ver Hoeve, T. Michael Nork, D. Victor Perloth	John Sinclair	West Exhibition Hall
08:00 AM - 09:45 AM	14: Animal Imaging	Poster	A0595	Functional, Histologic, and Ultrastructural Assessment of Novel OCT Findings in the Cynomolgus Monkey	Helen Booler, Aija Kusi, Nardos Tassew, Christopher Frantz, Matthew Holdren, Phillip Lai, T. Michael Nork, Carol Rasmussen, William Meier, Vladimir Bantsev	Helen Booler	West Exhibition Hall
08:00 AM - 09:45 AM	14: Animal Imaging	Poster	A0610	OCT in Neonate Monkeys With and Without Maternal Zika Virus Exposure	Carol Rasmussen, Seth Eaton, Nathan Diers, Peter Cueno, Emma Mohr, David O' Connor, Alexander Katz, Michelle Schotzko, Christopher Murphy, Yijun Huang, T Michael Nork	Carol Rasmussen	West Exhibition Hall
01:00 PM - 02:45 PM	35: AMD therapies (excluding anti-VEGF)	Poster	A0232	Small PEDF-derived peptides mitigate choroidal neovascularization	Jack Henkin, Ignacio Melgar-Asensio, Soesiawati Darjatmoko, Shoujian Wang, Christine Sorenson, Daniel Albert, Reshma Bhowmick, Olga Volpert, Nader Sheibani	Jack Henkin	West Exhibition Hall
01:00 PM - 02:45 PM	36: Gene variants and regulation of ocular genes expression in health and disease	Poster	A0370	Mutations in splicing factors that cause Retinitis Pigmentosa (RP) do not affect splicing in a global manner	Revital Bronstein, Sudeep Mehrotra, Elizabeth Capowski, Leah Foltz, Michael Farkas, David Gamm, Dennis Clegg, Eric Pierce	Revital Bronstein	West Exhibition Hall
01:00 PM - 02:45 PM	44: Neurodegeneration	Poster	B0129	Exploring the Role of BAX in the Degeneration of Retinal Ganglion Cell Axons and Dendritic Arbors	Ryan Donahue, Briana Ebbinghaus, Mrinalini Hoon, Robert Nickells	Ryan Donahue	West Exhibition Hall
01:00 PM - 02:45 PM	44: Neurodegeneration	Poster	B0151	Neuro-inflammation and degeneration in the Optic Nerve Head (ONH) in a Genetic Feline Model of Glaucoma	Kazuya Oikawa, Julie Kiland, N. Matthew Ellinwood, Gillian McLellan	Kazuya Oikawa	West Exhibition Hall
03:00 PM - 04:45 PM	70: AMD clinical research I	Poster	A0183	Comparable Growth Rates of Bilateral Geographic Atrophy due to Age-related Macular Degeneration	Jeong Pak, Amitha Domalpally, Kyle McDaniel, Barbara Blodi	Jeong Pak	West Exhibition Hall
03:00 PM - 04:45 PM	71: AMD clinical research II	Poster	A0202	Characteristics of Reticular Pseudodrusen in the AREDS2	Meghana Agni, Jeong Pak, Amitha Domalpally, Emily Chew	Meghana Agni	West Exhibition Hall
03:00 PM - 04:45 PM	73: From Modeling to Potential Therapies	Poster	A0356	Performance of a Novel OCT Segmentation Method for Determining Lesion Volume in the Assessment of a Non-Human Primate Model of Choroidal Neovascularization	Seth Eaton, Yijun Huang, Ronald Danis, T. Michael Nork, Carol Rasmussen, Hugh Wabers, Michael Neider, Brian Christian, Menno Van Lookeren Campagne, Christopher Murphy	Seth Eaton	West Exhibition Hall
04:15 PM - 04:30 PM	54: Retina	Paper	968	Vigabatrin-induced retinal bipolar cell plasticity in C57BL/6J mice	Kore Chan, Brad Wahlgren, Shawna Gloe, James Ver Hoeve, Mrinalini Hoon, Bikash Pattnaik, Jeremy Williams, Julie Kiland, Erwin Jansen, Gajja Salomons, Dana Walters, Jean-Baptiste Roulet, K Michael Gibson, Gillian McLellan	Kore Chan	East 2/3

**MONDAY, APRIL 29, 2019**

Time	Main Session	Type	#	Poster/Paper Title	Author(s)/Moderator(s)	Speaker/s	Location
08:15 AM - 10:00 AM	110: Imaging: posterior segment, clinical	Poster	A0344	Utility of Ultra-Widefield Imaging in Patients with Inherited Retinal Diseases	Rachael Lyerla, Nickie Stangel, Angie Adler, Melanie Schmitt, Kimberly Stepien	Rachael Lyerla	West Exhibition Hall
08:15 AM - 10:00 AM	112: Retinal Vascular Biology	Poster	B0274	Suprachoroidal (SC) injection of endothelin-1 (ET-1) in rabbits: A new model of outer retinal ischemia.	T Michael Nork, Alexander Katz, Elizabeth Hennes-Bean, Charlene Kim	T Michael Nork	West Exhibition Hall
11:15 AM - 11:30 AM	118: Translational immunology in AMD, uveitis and thyroid eye disease	Paper	1722	Infection Patterns of Periodontal Microbiota and Age-related Macular Degeneration	Chung-Jung Chiu, Alpdogan Kantarci, Ronald Klein	Chung-Jung Chiu	East Ballroom A
12:45 PM - 01:00 PM	127: New Ideas in Glaucoma	Paper	1788	Schlemm's canal imaging, pressure measurement, catheterization and substance delivery in live monkeys	Sri Meghana Konda, Julie Kiland, Mary Mohr, Jared McDonald, Candice Ho, Anita Chan, Jesse Moreno, Phil Prosser, Shamira Perera, Paul Kaufman	Sri Meghana Konda	ARVO Ballroom
04:00 PM - 05:45 PM	173: IOP Measurement	Poster	A0591	Validation of the Icare® TONOVET Plus rebound tonometer in normal rabbit eyes	Julie Kiland, Abby Rothering, Shawna Gloe, Gillian McLellan	Julie Kiland	West Exhibition Hall
04:00 PM - 05:45 PM	173: IOP Measurement	Poster	A0598	High Contrast Grating Based Mechanical Sensor for Intraocular Applications	Jayer Fernandes, Yong Kwon, Jae-Jun Kim, Mary Ann Croft, Hewei Liu, Paul Kaufman, Hongrui Jiang	Jayer Fernandes	West Exhibition Hall
04:00 PM - 05:45 PM	178: Retinal Vascular Diseases II	Poster	B0121	Ellipsoid Zone Status and its Association with Visual Acuity in Eyes with Macular Edema in the Study of COmparative Treatments for REtinal Vein Occlusion 2 (SCORE 2)	Chandana Papudesu, Amitha Domalpally, Neal Oden, Paul VanVeldhuisen, Ingrid Scott, Michael Ip, Barbara Blodi	Chandana Papudesu	West Exhibition Hall
04:45 PM - 05:00 PM	165: Biomechanics	Paper	2247	Modulating human intraocular and intracranial pressure using the ex-vivo Translaminar Autonomous System	Tasneem Sharma, Abbot Clark, Husain Lohawala, Colleen McDowell	Tasneem Sharma	ARVO Ballroom
05:15 PM - 05:30 PM	AMD: Clinical Research	Paper	2216	Reticular Pseudodrusen as a Risk Factor for Progression of Age-Related Macular Degeneration	Amitha Domalpally, Jeong Pak, Elvira Agron, Tracy Clemons, Emily Chew	Amitha Domalpally	East Ballroom B
07:30 PM - 09:00 PM	296: New Clinical Trial Results in Retinal Vein Occlusion: SCORE2 and LEAVO Trials	Special Session		SCORE2 Interesting Cases	Barbara Blodi	Barbara Blodi	West 212-214

**TUESDAY, APRIL 30, 2019**

Time	Main Session	Type	#	Poster/Paper Title	Author(s)/Moderator(s)	Speaker/s	Location
08:45 AM - 10:30 AM	212: Stem Cell based Approaches for Transplantation and Therapies	Poster	A0057	Transplantation of human pluripotent stem cell-derived photoreceptors on a biocompatible scaffold in the S334ter rat	Allison Ludwig, Joe Phillips, Lindsey Jager, Kelsy Nilles, Sara Stuedemann, Juhwan Lee, Inkyu Lee, Shaoqin Gong, Zhenqiang Ma, David Gamm	Allison Ludwig	West Exhibition Hall
08:45 AM - 10:30 AM	219: OCTA - Experimental Applications and Technical Improvements	Poster	A0431	Assessment of OCT angiography image quality in clinical studies	Ian Holmen, Sri Meghana Konda, Jeong Pak, Barbara Blodi, Kimberly Stepien, Amitha Domalpally	Ian Holmen	West Exhibition Hall
08:45 AM - 10:30 AM	224: Aqueous humor Dynamics and IOP	Poster	B0358	Imaging Post-Trabecular Outflow Pathways in Spontaneous Canine Glaucoma	Gillian McLellan, Mary Rebecca Telle, Jake Nilles, Kevin Snyder, Kazuya Oikawa, Julie Kiland, Leandro Teixeira, Alex Huang	Gillian McLellan	West Exhibition Hall
08:45 AM - 09:00 AM	202: Diabetic Retinopathy: Clinical Imaging	Paper	2803	Diabetic Retinopathy Severity Level Assessment in Ultrawide-field Imaging	Nancy Barrett, Kristi Dohm, Kyle McDaniel, Barbara Blodi, Amitha Domalpally	Nancy Barrett	East Ballroom B
10:00 AM - 10:15 AM	206: Glaucoma Genetics Development with advanced technology & large datasets	Paper	2835	Novel DDX58 Gene Mutation Associated With Childhood Glaucoma	Terri Young, Kristina Whisenhunt, Yasmin Bradfield, Nickie Stangel, Sarah Lamartina, Stuart Tompson	Terri Young	West 217-219
11:45 AM - 01:30 PM	238: Stem Cells and Retinal Organoids: Development	Poster	A0028	Characterization of interphotoreceptor matrix proteins expressed by human pluripotent stem cell derived retinal cells	Steven Mayerl, Elizabeth Capowski, Divya Sinha, Joe Phillips, Kimberly Edwards, David Gamm	Steven Mayerl	West Exhibition Hall
11:45 AM - 01:30 PM	240: Gene therapy for ocular disorders	Poster	A0161	Gene therapies differentially rescue disease phenotype in patient-specific hiPSC-RPE models of Best disease	Divya Sinha, Benjamin Steyer, Pawan Shahi, Rasa Valiauga, Kimberly Edwards, Cole Bacig, Bikash Pattnaik, Krishanu Saha, David Gamm	Divya Sinha	West Exhibition Hall
12:15 PM - 12:30 PM	230: Retinal Angiogenesis and Related Mechanisms in Vascular Biology	Paper	3260	1,25(OH)2D3 Attenuates Retinal Angiogenesis by Inhibiting Proangiogenic Activity of Pericytes	Nader Sheibani, Nasim Jamali, Christine Sorenson	Nader Sheibani	East 11/12

THURSDAY, MAY 1, 2019

Time	Main Session	Type	#	Poster/Paper Title	Abstract Author Block	Speaker/s	Location
10:15 AM - 12:00 PM	336: Trabecular Meshwork and Ciliary Body	Poster	B0537	TLR4 signaling in the human trabecular meshwork	Colleen McDowell, Tasneem Sharma	Colleen McDowell	West Exhibition Hall
10:15 AM - 12:00 PM	336: Trabecular Meshwork and Ciliary Body	Poster	B0541	Activation of $\alpha\beta3$ integrin in human trabecular meshwork cells enhances Rho-independent assembly of fibronectin fibrils.	Mark Filla, Harini Desikan, Donna Peters	Mark Filla	West Exhibition Hall
10:15 AM - 12:00 PM	336: Trabecular Meshwork and Ciliary Body	Poster	B0546	Inactivation of $\alpha\beta3$ integrin in talin-1 deficient human trabecular meshwork cells prevents TGF $\beta$ 2 induced increase in fibronectin protein expression	Jennifer Faralli, Johanna Balas, Mark Filla, Donna Peters	Jennifer Faralli	West Exhibition Hall
11:30 AM - 11:45 AM	324: Imaging	Paper	4823	Non-invasive Detection of Visual Pathway Abnormalities in Genetic Experimental Models of Glaucoma Using Diffusion Tensor MRI	Max Colbert, Yolandi van der Merwe, Leon Ho, Gillian McLellan, Samuel Hurley, John Fingert, Carlos Parra, Muneeb Faiq, Gadi Wollstein, Joel Schuman, Kevin Chan	Max Colbert	ARVO Ballroom
11:45 AM - 12:00 PM	315: Stem Cells and Organoids	Paper	4766	Single-cell transcriptomic analysis of human NRL null retinal organoids	Donald Zack, Alyssa Kallman, Elizabeth Capowski, Anu Kaushik, Liben Chen, Melissa Liu, Alex Jansen, Kim Edwards, Cindy Berlinicke, Ming-Wen Hu, Jiang Qian, Eric Pierce, Jeff Wang, David Gamm	Donald Zack	East 11/12
03:00 PM - 04:45 PM	368: Diabetic Retinopathy Imaging	Poster	B0029	Comparison of Diabetic Retinopathy Severity Level Assessment Between Standard 7-field Imaging and Ultrawide Field Color Imaging	Kristi Dohm, Nancy Barrett, Kyle McDaniel, Barbara Blodi, Amitha Domalpally	Kristi Dohm	West Exhibition Hall
03:00 PM - 04:45 PM	368: Diabetic Retinopathy Imaging	Poster	B0031	Correlation of peripheral non-perfusion from ultrawide field fluorescein angiography to color ETDRS severity level in eyes with diabetic retinopathy	Ellie Corkery, Kyle McDaniel, Amitha Domalpally, Barbara Blodi	Ellie Corkery	West Exhibition Hall
03:00 PM - 04:45 PM	372: Healthcare Delivery	Poster	B0332	Engaging patients and clinical stakeholders to increase teleophthalmology use for diabetic eye screening in rural primary care clinics	Yao Liu, Julia Carlson, Nicholas Zupan, Todd Molfenter, Jane Mahoney, Deanne Boss, Ronald Klein, Timothy Bjelland, Maureen Smith	Yao Liu	West Exhibition Hall
03:00 PM - 04:45 PM	375: Imaging II	Poster	B0463	Accommodative Ciliary Muscle Contraction: Choroid and Lens Thickness Measurements	Mary Ann Croft, T Michael Nork, Jared McDonald, Paul Kaufman	Mary Ann Croft	West Exhibition Hall

FRIDAY, MAY 2, 2019

Time	Main Session	Type	#	Poster/Paper Title	Author(s)/Moderator(s)	Speaker/s	Location
08:00 AM - 09:45 AM	398: Vision Assessment & Performance. Aging, Driving	Poster	A0411	Macular pigment and low luminance vision in the Carotenoids in Age-Related Eye Disease Study (CAREDS), an ancillary study of the Women's Health Initiative	Krista Christensen, Zhe Liu, James Ver Hoeve, James Stringham, Yao Liu, Robert Wallace, Karen Gehrs, Lesley Tinker, Tom Lawler, Julie Mares	Krista Christensen	West Exhibition Hall
08:00 AM - 09:45 AM	398: Vision Assessment & Performance. Aging, Driving	Poster	A0425	Visual Acuity, Motor Vehicle Collisions, and Moving Violations in a Cohort of Patients Who Have Undergone Eyelid Surgery	Katherine Lucarelli, Cat Burkat, Mark Lucarelli, Suzanne van Landingham	Katherine Lucarelli	West Exhibition Hall
08:00 AM - 09:45 AM	400: Animal Electrophysiology	Poster	A0474	Normative Values for Multifocal ERGs Recorded from Cynomolgus Macaques in a Non-clinical Setting	Yelena Krakova, Charlene Kim, Seth Eaton, Brian Christian, Ewa Budzynski, Jackie Miller, T Michael Nork, Christopher Murphy, James Ver Hoeve	Yelena Krakova	West Exhibition Hall
08:00 AM - 09:45 AM	402: Retinal Development	Poster	A0515	Bim Expression Modulates Retinal Astrocyte Function through Regulation of the Extracellular Microenvironment	Christine Sorenson, Juliana Falero-Perez, Nader Sheibani	Christine Sorenson	West Exhibition Hall
10:15 AM - 12:00 PM	431: Retinal Detachment, Trauma and Repair	Poster	A0287	Retinal Detachment Repair Outcomes in Patients who Received Preoperative Evaluation with a Different Surgeon	Zackery Oakey, Ian Holmen, Jonathan Chang, Elaine Downie, Michael Ip, Michael Altaweel, Justin Gottlieb, T Michael Nork	Zackery Oakey	West Exhibition Hall
10:15 AM - 12:00 PM	431: Retinal Detachment, Trauma and Repair	Poster	A0292	Recurrent retinal detachment: Surgical practices and outcomes	Elaine Downie, Zackery Oakey, Ian Holmen, Michael Altaweel, Justin Gottlieb, Michael Ip, T Michael Nork, Jonathan Chang	Elaine Downie	West Exhibition Hall
10:30 AM - 10:45 AM	416: Advances in Retinal Gene Therapy and Stem Cells	Paper	6397	Survival and migration of photoreceptor precursors following transplantation into a macaque eye with host photoreceptors ablated	Ebrahim Aboualzadeh, M Joseph Phillips, Jennifer Strazzeri, David Diloreto, Kamal Dhakal, Brittany Bateman, Jennifer Hunter, William Merigan, David Gamm, David Williams	Ebrahim Aboualzadeh	East 8 & 15
12:15 PM - 01:45 PM	440: Exploring Controversial Issues in BEST1-related Retinal Disease - SIG	Special Interest Group		Exploring Controversial Issues in BEST1-related Retinal Disease	Janet Sparrow, Stephen Tsang, Anthony Moore, Tingting Yang, Bernhard Weber, David Gamm, Olaf Strauss	David Gamm, Anthony Moore, Janet Sparrow, Olaf Strauss, Stephen Tsang, Bernhard Weber, Tingting Yang	East Ballroom A
12:15 PM - 01:45 PM	442: EVER/ARVO workshop: The breadcrumb trail in glaucoma: From biology to the patient	Workshop		The BAX activation mechanism (BAM) in damaged retinal ganglion cells: prospects for future intervention	Robert Nickells	Robert Nickells	West 211

### MODERATING ACTIVITIES

Date	Time	Type	Poster Series	Session Title	Moderator(s)	Location
April 28, 2019	08:00 AM - 09:45 AM	Poster	A0592 - A0617	14: Animal Imaging	Gillian McLellan, Robert J. Zawadzki	West Exhibition Hall
April 29, 2019	01:15 PM - 02:45 PM	Workshop		260: Members-in-Training Career Forum: Preparing for your future career NOW!	Colleen McDowell, Esther M. Bowie	West 211
April 29, 2019	04:00 PM - 05:45 PM	Poster	B0213 - B0249	292: Diabetic Retinopathy: Pathogenic Mechanisms	Nader Sheibani	West Exhibition Hall
May 1, 2019	12:15 PM - 01:45 PM	Workshop		Women in Eye and Vision Research Workshop: From Bench to Bedside and Back	Terri Young	West 211
May 1, 2019	03:00 PM - 04:45 PM	Poster	B0017 - B0048	368: Diabetic Retinopathy Imaging	Amitha Domalpally, Toco Yuen Ping Chui	West Exhibition Hall

### ANCILLIARY EVENTS

Time	Date	Event	Organization	Activity	Speaker/s	Location
08:00AM - 02:00 PM	April 27, 2019	Vision Quest	The Foundation Fighting Blindness	Presentation: Restoring Vision with Stem Cells (9:55 AM - 10:25 AM)	David Gamm	Stanley Park Pavilion 610 Pipeline Road
01:15 PM - 03:00 PM	April 29, 2019	Luncheon	Women in Eye and Vision Research	Introduction	Terri Young (Chair)	

### LEADERSHIP/SERVICE ACTIVITIES

Name	Position	Organization
Amitha Domalpally	Editorial Board Member	Translational Vision Science and Technology (TVST) Journal
Kara Vogel	Training Fellow	ARVO Science Communication
Gillian McLellan	Chair Elect	ARVO Animals in Research Committee
Gillian McLellan	ARVO Delegate	Association for Assessment and Accreditation of Laboratory Animal Care International
Terri Young	Chair	Women in Eye and Vision Research
Terri Young	Mentor	Developing Country Eye Research Travel Fellowship
Terri Young	Member	ARVO Foundation Board of Trustees
Terri Young	Editorial Board Member	Investigative Ophthalmology and Visual Science Journal
Terri Young	Editorial Board Member	Experimental Eye Research