

INTERNATIONAL RETINAL IMAGING SOCIETY

**Presents:** 

## INTERNATIONAL RETINAL IMAGING SYMPOSIUM 2023

#### MARCH 31-APRIL 1, 2023

UCLA Meyer & Renee Luskin Conference Center Los Angeles, CA



Beaumont

ACCREDITATION AND CREDIT DESIGNATION

In support of improving patient care, this activity has been planned and implemented by Beaumont Health and Medical Conference Planners Intl. and the International Retinal Imaging Society. Beaumont Health is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.

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Dear IntRIS Members and IntRIS 2023 Meeting Registrants:

We would like to welcome you to the International Retinal Imaging Symposium 2023! The International Retinal Imaging Society (IntRIS) was established on July 3, 2017 to facilitate the advancement of knowledge and science and innovation in the field of retinal imaging. The centerpiece of this non-profit organization is the annual conference which is a medium for vibrant exchange of innovative and novel information between retinal imaging experts from all over the world.

We are very excited to hold the meeting in person for the first time since the devastating COVID-19 pandemic. IntRIS 2023 will take place at the elegant and state of the art Luskin Conference Center at UCLA and will include two days of retinal imaging talks covering an exciting and broad array of topics.

The IntRIS 2023 program is robust and includes speakers from all over the world who are leading experts on various innovative retinal imaging subjects including artificial intelligence, adaptive optics, en face optical coherence tomography and OCT angiography. In addition, the program will update breakthroughs made in our understanding and evaluation of various retinal diseases such as neovascular age related macular degeneration and atrophic AMD, myopic degeneration, retinal vascular disease, and genetic retinal dystrophies using advanced retinal imaging. Novel retinal entities will also be discussed including Stellate Macular Choroidopathy (SMACH) and pachyvitelliform maculopathy (PVM).

This meeting would not be possible without the support and invaluable contributions of the International Retinal Imaging Society (IntRIS) led by Monica Kim, and the oversight and planning of the conference led by Karen Baranick and her very talented team at Medical Conference Planners Intl. (MCPI). We welcome all of our IntRIS members and IntRIS 2023 registrants to Los Angeles and we are looking forward to a stimulating conference that will be sure to educate and illuminate all of our participants on many innovative and exciting topics in the area of advanced retinal imaging!

Sincerely,

IntRIS Meetings and Program Committee



David Sarraf, MD Chair



Amani A. Fawzi, MD Member



K. Bailey Freund, MD Member



SriniVas R. Sadda, MD Member



#### LAWRENCE A. YANNUZZI AWARD LECTURE

SATURDAY, APRIL 1, 2023 | 1:35 PM **Bettering OCT Imaging: Chasing the Clock** CYNTHIA A. TOTH. MD

Cynthia A. Toth completed a 6-year BA-MD (Lehigh University/Medical College of Pennsylvania--now Drexel) and served as an ophthalmologist in the US Air Force. Upon completing vitreoretinal fellowship at University of California, Davis, she directed the Retina Service at Wilford Hall USAF Medical Center and performed research in optical coherence tomography (OCT) with the early inventors and her Air Force colleagues.

Cynthia joined the Duke Retina Faculty in 1993 succeeding Robert Machemer in macular translocation surgery for neovascular AMD and as the director of the surgical instrument prototyping Duke Eye Center Biophysics Laboratory. In the early 2000s she transformed that laboratory into her Duke Advanced Research in SD/SS OCT Imaging (DARSI) Laboratory, co-founded the Duke Reading Center with Dr. Jaffe, conceived and led the AREDS2 Ancillary OCT Study and directed the OCT grading for CATT. In over 25 years collaborating with biomedical engineer Joseph Izatt and colleagues, she has integrated OCT imaging for use in retinal surgery, taking image-guided ocular microsurgery to the next level. Toth's translational research has been the genesis for the field of infant ocular OCT imaging, enabling original FDA approval of a handheld system. Her research focuses on a revolutionary approach to screening infants and those who cannot access conventional tabletop systems, through portable, handheld, OCT imaging to identify markers of ROP and of eye and brain development.

Cynthia is Vice Chair of Clinical Research and Director of Physician-Scientist Development for Duke Eye Center and a successful mentor. Her awards include: The Hartwell Foundation Research/ Collaborative Awards; Irish Ophthalmologic Society Mooney Medal; RPB Physician Scientist and Stein Innovation Awards; Retina Society Research Award of Merit; Women in Ophthalmology & Women Physician's Section of AMA Mentorship Award; Dean's Translational Research and Mentoring Award; Rockefeller Foundation Academic Writing Residency; Macula Society Paul Henkind Award; Club Jules Gonin Wacker Prize; Women in Ophthalmology Scientific Achievement Award; WSPOS Jack Kanski Medal; and ASRS Gertrude D. Pyron Award.

Cindy's husband and love of her life is David Katz. He is her joy, true life partner and inspiration, sharing travel, cooking, the outdoors, family and good friends.

#### PAST LAWRENCE A. YANNUZZI LECTURERS

2020 Richard F. Spaide, MD2021 Philip J. Rosenfeld, MD, PhD2022 Christine A. Curcio, PhD

## FRIDAY MARCH 31, 2023

<b>6:45 AM – 3:00 PM</b> <b>6:45 AM – 3:00 PM</b> <b>6:45 – 7:30 AM</b> 7:30 – 7:45 AM	Registration Exhibits Breakfast Welcome Remarks David Sarraf, MD	8:25 – 8:35 AM	Artificial Intelligence Algorithms for Measurement of Geographic Atrophy: Perspectives in Data Labeling
7:45 – 8:05 AM	SESSION 1: TECHNOLOGY INNOVATIONS I Moderators: Amani A. Fawzi, MD and Jennifer J. Kang-Mieler, PhD	8:35 – 8:45 AM	Amitha Domalpally, MD, PhD Deep Learning for Automatic Prediction of Early Activation of Treatment-Naïve
7:45 – 7:55 AM	Quad-Fusion Adaptive Optics Scanning Light Ophthalmoscopy: A Multi- Directional Non-Confocal Imaging Technique for Enhancement of Vascular and Cellular	8:45 – 9:15 AM	Quiescent MNVs in AMD Emanuele Crincoli, MD, FEBO SESSION 4: OCT & OCT ANGIOGRAPHY Moderators: Marion Munk, MD, PhD and Nadia K. Waheed, MD, MPH
7:55 – 8:05 AM	Microstructures Richard B. Rosen, MD, ScD Split-Spectrum OCT Optoretinography David Huang, MD, PhD	8:45 – 8:55 AM	Cultivating Nomenclature in Optical Coherence Tomography Angiography – An Update on Standardization Efforts
8:05 – 8:25 AM	<b>SESSION 2: ANATOMY I</b> Moderators: K. Bailey Freund, MD and Richard B. Rosen, MD, ScD	8:55 – 9:05 AM	Marion Munk, MD, PhD Detection of Retinal Slow Perfusion Area Using Inter-Scan Time-
8:05 – 8:15 AM	Socio-Demographic and Genetic Associations of OCT-Derived Measures of Fovea Curvature in Healthy Individuals Adnan Tufail, MD, FRCOphth	9:05 – 9:15 AM	Variable OCTA in Central Retinal Vein Occlusion Fukutaro Mano, MD Coincident PAMM and AMN and Insights into a Common Pathophysiology
8:15 – 8:25 AM	Characterization of Foveal Development	9:15 – 9:45 AM	Claudio Iovino, MD Break
	in Treatment-Naïve Extremely Preterm Infants Irena Tsui, MD	9:45 – 10:15 AM	SESSION 5: NOVEL RETINAL DISEASE Moderators:
8:25 – 8:45 AM	SESSION 3: ARTIFICIAL INTELLIGENCE FOR RETINAL IMAGING Moderators: SriniVas R. Sadda, MD and Amitha Domalpally, MD, PhD		Giuseppe Querques, MD, PhD and Richard F. Spaide, MD

(continued)

# FRIDAY MARCH 31, 2023 (continued)

	Peripapillary Hyperreflective Ovoid Mass-Like Structures (PHOMS) as a Biomarker of Ocular, Orbital and	10:45 – 10:55 AM	Assessing Disorganization of Retinal Inner Layers in Long Term Follow Up of SCORE2 Trial Barbara Blodi, MD
	Neurologic Diseases Causing Axoplasmic Stasis Fred Chen, MBBS, PhD, FRANZCO	10:55 – 11:05 AM	Macrophage-Like Cells are Increased in Patients with Vision-Threatening Diabetic Retinopathy
9:55 – 10:05 AM	Stellate Macular Choroidopathy (SMACH): Clinical and Multimodal		and Correlate with Macular Edema Jeremy A. Lavine, MD, PhD
	Imaging Features K. Bailey Freund, MD	11:05 – 11:15 AM	Imaging the Retinal Pericytes In Vivo – How
10:05 – 10:15 AM	Pachyvitelliform Maculopathy (PVM): Optical Coherence		Early Do They Die in Diabetic Retinopathy? Amani A. Fawzi, MD
	Tomography Analysis of a Novel Entity	11:15 AM – 12:15 PM	Lunch
	David Sarraf, MD	11:30 – 11:50 AM	Satellite Symposia (non-CME)^:
10:15 – 10:45 AM	<b>SESSION 6: AMD IMAGING</b> <i>Moderators:</i> <i>Christine A. Curcio, PhD and</i> <i>Philip J. Rosenfeld, MD, PhD</i>		Recent Advances in Imaging at Heidelberg Engineering Charles Reisman, MS
10:15 – 10:25 AM	Drusen Are Inflammatory, SDD Not So Much:		(Sponsored by Heidelberg Engineering)
	A Clinicopathologic Correlation Christine A. Curcio, PhD	12:15 – 12:45 PM	SESSION 8: MYOPIA/ INFLAMMATION Moderators:
10:25 – 10:35 AM	In Vivo Characterization of Cone Photoreceptor		Gemmy Cheung, MD and Alexandra Miere, MD, PhD
	Light Reflectivity Change Associated with Extracellular Lesions in the Sub-RPE and the Subretinal Spaces in Age-Related Macular	12:15 – 12:25 PM	Myopic Vitreopathy and Vision Degrading Myodesopsia J. Sebag, MD, FACS, FRCOphth, FARVO
	<b>Degeneration</b> Yuhua Zhang, PhD	12:25 – 12:35 PM	Lacquer Cracks Detection and Measurement using
10:35 – 10:45 AM	The Futility of Complement Inhibition for the Treatment of Geographic Atrophy Richard F. Spaide, MD		Black-On-White Infrared Reflectance and Late Phase Indocyanine Green Angiography in Pathologic Myopia
10:45 – 11:15 AM	SESSION 7: RETINAL VASCULAR DISEASE Moderators: Barbara Blodi, MD and Michael S. Ip, MD		Alexandra Miere, MD, PhD

12:35 – 12:45 PM 12:45 – 1:15 PM	Punctate Inner Choroidopathy-like Reactions in Unrelated Retinal Diseases Maria Vittoria Cicinelli, MD SESSION 9:	1:55 – 2:45 PM	SESSION 11: MEMBER-IN-TRAINING PRESENTATIONS I Moderators: SriniVas R. Sadda, MD and Richard F. Spaide, MD
12:45 - 1:15 PM	NEOVASCULAR AMD I Moderators: David Sarraf, MD and Eric Souied, MD, PhD	1:55 – 2:05 PM	Cones can be Detected Within Geographic Atrophy Lesions Using an Adaptive Optics Flood
12:45 – 12:55 PM	Nascent Geographic Atrophy as an OCT Biomarker of Type 3 MNV Development		Illumination Imaging David Lozano-Giral, MD (Sponsored by Irena Tsui, MD)
	Giuseppe Querques, MD, PhD	2:05 – 2:15 PM	Characteristics of Early Phase Retinal
12:55 – 1:05 PM	Difference in Characteristics and Lesion Reactivation Between Type 3 Macular Neovascularization with and without Subretinal		Angiomatous Proliferation by Optical Coherence Tomography Angiography Tomoko Sato, MD, PhD (Sponsored by Fukutaro Mano, MD)
	Fluid at Baseline Jae Hui Kim, MD	2:15 – 2:25 PM	Active and Inactive Microaneurysms Identified
1:05 – 1:15 PM	Pigment Epithelial Detachment Composition Indices (PEDCI) in Neovascular Age-Related Macular Degeneration		and Characterized by OCT and OCT Angiography Tristan T. Hormel, PhD (Sponsored by David Huang, MD, PhD)
1:15 – 1:35 PM	Jay Chhablani, MD SESSION 10: NON-NEOVASCULAR AMD I Moderators: Alexander J. Brucker, MD and William F. Mieler, MD	2:25 – 2:35 PM	Decreased Central Macular Choriocapillaris Perfusion Correlates with Increased Low Luminance Visual Acuity Deficits Mengxi Shen, MD (Sponsored by Philip J. Rosenfeld, MD, PhD)
1:15 – 1:25 PM	Comparison of Multimodal Imaging for the Characterization of Geographic Atrophy Eric Souied, MD, PhD	2:35 – 2:45 PM	Choriocapillaris Impairment is Topographically Related to Delayed Rod-Mediated Dark
1:25 – 1:35 PM	Onset and Progression of Choroidal Hypertransmission Defects in Intermediate AMD: A Novel Clinical Trial Endpoint Philip J. Rosenfeld, MD, PhD		Adaptation in Age-Related Macular Degeneration: ALSTAR2 Baseline Deepayan Kar, MS, PhD (Sponsored by Christine A. Curcio, PhD)
1:35 – 1:55 PM	Break	2:45 – 3:00 PM	Closing Remarks David Sarraf, MD

### SATURDAY APRIL 1, 2023

7:00 AM – 5:30 PM 7:00 AM – 3:45 PM	Registration Exhibits	9:00 – 9:10 AM	Assessment of Retinal Arteriolar Tortuosity in
7:00 AW = 3:45 PW 7:00 – 8:00 AM	Breakfast	Pa	Patients with COL4 A1 or COL4 A2 Mutations Valerie Krivosic, MD SESSION 14:
8:00 – 8:10 AM	Welcome Remarks David Sarraf, MD	9:10 – 9:30 AM	
8:10 – 8:40 AM	SESSION 12: TECHNOLOGY INNOVATIONS II Moderators: David Huang, MD, PhD and		<b>STRUCTURE VERSUS</b> <b>FUNCTION</b> <i>Moderators:</i> <i>Paul S. Bernstein, MD, PhD</i> <i>and Cynthia A. Toth, MD</i>
8:10 – 8:20 AM	SriniVas R. Sadda MD Enhanced Detection of Reticular Pseudodrusen on Color Fundus Photos by Image Embossing SriniVas R. Sadda, MD	9:10 – 9:20 AM	Assessment of Visual Function Changes on Microperimetry in High-Risk Areas of the Retina in Patients with Geographic Atrophy
8:20 – 8:30 AM	Measuring Outer Nuclear Layer Thickness Using Volumetric Directional Optical Coherence Tomography Yifan Jian, PhD	9:20 – 9:30 AM	Agha Yasin Alibhai, MD Association of OCT Hyper- Reflectivity with Visual Acuity: A Post Hoc Analysis of the SCORE2 Cohort Michael S. Ip, MD
8:30 – 8:40 AM	Dosimetry of Optical Coherence Tomography Guided Selective	9:30 – 10:00 AM 10:00 – 10:30 AM	Break SESSION 15: ULTRA-WIDEFIELD
	<b>Retina Therapy</b> Chantal Dysli, MD, PhD		IMAGING Moderators:
8:40 – 9:10 AM	SESSION 13: ANATOMY II Moderators:		Jesse J. Jung, MD and Giuseppe Querques, MD, PhD
	K. Bailey Freund, MD and David Sarraf, MD	10:00 – 10:10 AM	Sensitivity of Ultra- Widefield Imaging in
8:40 – 8:50 AM	The Retinal Deep Capillary Plexus as a Venous Outflow System: Insights from Sturge Weber Syndrome		Single versus Montage of Peripheral Sweeps with Identifying Peripheral Retinal Tears Jesse J. Jung, MD
8:50 – 9:00 AM	Aristomenis Thanos, MD Deep Capillary Plexus	10:10 – 10:20 AM	Novel Features of Degenerative
0.00 0.00 AW	Features in Acute Macular Neuroretinopathy: Novel Insights Based on the Anatomy of Henle's Fiber Layer Diogo Cabral, MD		Retinoschisis Identified Using Ultra-Widefield Multicolor Channels: A Review of 139 Eyes Netan Choudhry, MD, FRCSC

10:20 – 10:30 AM	Eccentric Optical Coherence Tomography Adaptive Optics System (Eoct) for a High- Resolution Imaging of the Far Peripheral Retina Steven D. Schwartz, MD	11:20 – 11:30 AM	North Carolina Macular Dystrophy (NCMD/ MCDR1): Analysis of Our Entire Database, A Model Disease of Non-Coding Mutations Kent W. Small, MD
10:30 – 10:50 AM	SESSION 16: MACULAR	11:30 AM – 1:30 PM	Lunch
	TELANGIECTASIA TYPE 2	11:45 AM – 1:15 PM	<b>Executive Committee Lunch</b>
	Moderators: Amani A. Fawzi, MD and Steven D. Schwartz, MD	1:30 – 2:15 PM	SESSION 18: 4th ANNUAL LAWRENCE A. YANNUZZI AWARD
10:30 – 10:40 AM	High Resolution OCT		LECTURE
	And FLIO Imaging in Patients with Macular Telangiectasia Type 2 (MacTel) Lydia Sauer, MD	1:30 – 1:35 PM	Introduction of 4th Annual Lawrence A. Yannuzzi Award Lecturer Richard F. Spaide, MD
10:40 – 10:50 AM	Multimodal Retinal Imaging of Down Syndrome Adults Who Have MacTel Paul S. Bernstein, MD, PhD	1:35 – 2:05 PM	4th Annual Lawrence A. Yannuzzi Award Lecture Bettering OCT Imaging: Chasing the Clock Cynthia A. Toth, MD
10:50 – 11:30 AM	SESSION 17: INHERITED RETINAL	2:05 – 2:15 PM	Discussion
	<b>DISTROPHY</b> Moderators: Anita Agarwal, MD and Alexander J. Brucker, MD	2:15 – 2:35 PM	SESSION 19: CENTRAL SEROUS CHORIORETINOPATHY Moderators:
10:50 – 11:00 AM	Can Optical Coherence Tomography Distinguish		Marion Munk MD, PhD and SeungYoung Yu, MD, PhD
	ABCA4-Related Stargardt Disease from PRPH2- Related Retinopathy? Rachael Heath Jeffery,	2:15 – 2:25 PM	Scleral Thickness in Fellow Eyes of Central Serous Chorioretinopathy Hideki Koizumi, MD, PhD
11:00 – 11:10 AM	MChD, MPH Evolution of Disease in Peripherin/RDS Dystrophy Anita Agarwal, MD	2:25 – 2:35 PM	En Face Ultra-Widefield Optical Coherence Tomography of The Vortex Vein System in Central
11:10 – 11:20 AM	Assessing Retinal Melanin Distribution		Serous Chorioretinopathy Prithvi Ramtohul, MD
	Using Polarization Diversity Optical Coherence Tomography in Retinitis Pigmentosa Eduardo Navajas, MD, PhD	2:35 – 3:05 PM	SESSION 20: POLYPOIDAL CHOROIDAL VASCULOPATHY Moderators: Gemmy Cheung, MD and Richard F. Spaide, MD

(continued)

## SATURDAY | APRIL 1, 2023 (continued)

2:35 – 2:45 PM	Features of Polypoidal Choroidal Vasculopathy on Optical Coherence Tomography Angiography Colin Tan, MD	4:00 – 4:10 PM	Anatomical Outcomes After a Single-Dose Intravitreal Injection of Faricimab-Svoa in Patients with Neovascular Age-Related Macular Degeneration and Persistent Sub- and Intraretinal Fluid Moritz S. Pettenkofer, MD
2:45 – 2:55 PM	Three-Year Clinical Outcomes of Polypoidal Choroidal Vasculopathy Treatment Based on Early Polypoidal		
	Lesion Regression: Swept-Source Optical Coherence Tomography Angiography Analysis SeungYoung Yu, MD, PhD	4:10 – 4:40 PM	SESSION 22: NON-NEOVASCULAR AMD II Moderators: Enrico Borrelli, MD and
2:55 – 3:05 PM	Choroidal Vascular Alterations in Age-Related Macular Degeneration and Polypoidal Choroidal Vasculopathy Gemmy Cheung, MD	4:10 – 4:20 PM	Philip J. Rosenfeld, MD, PhD Associations Between Systemic Interleukin-1 Beta and Interleukin-1 Receptor Antagonist with Imaging Biomarkers
3:05 – 3:40 PM	Break		among Patients with
3:40 – 4:10 PM	SESSION 21: NEOVASCULAR AMD II Moderators: Christine A. Curcio, PhD and	4:20 – 4:30 PM	Geographic Atrophy in the University of Colorado Age-Related Macular Degeneration Registry Talisa E. De Carlo Forest, MD
3:40 – 3:50 PM	Nadia K. Waheed, MD, MPH Baseline Optical Coherence Tomography Biomarkers Predictive of Progression to Late Age-Related Macular		Phenotypic Characterization of GA Predictors of Development and Progression Riccardo Sacconi, MD, PhD, FEBO
	Degeneration Nadia K. Waheed, MD, MPH	4:30 – 4:40 PM	Capturing the Transition
3:50 – 4:00 PM	A Customized Regimen of Intravitreal Aflibercept for Treatment of Choroidal Neovascularization Secondary to Different Chorioretinal Diseases		from Intermediate to Neovascular AMD: Longitudinal Inner Retinal Thinning and Factors Associated with Neuronal Loss Enrico Borrelli, MD
	Magdy Moussa, MD	4:40 – 5:30 PM	SESSION 23: MEMBERS-IN-TRAINING PRESENTATIONS II Moderators: K. Bailey Freund, MD and Philip J. Rosenfeld, MD, PhD

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4:40 – 4:50 PM	Intra Ocular A-Scan Probe for Micron Order Precision of Real Time Distal Sensing of the Retina Aya Barzelay, MD, PhD (Sponsored by Steven D. Schwartz, MD)	
4:50 – 5:00 PM	Foveal Development in Extremely Preterm Birth Infants with Retinopathy of Prematurity Treated with Ranibizumab Ye He, MD, PhD (Sponsored by Srinivas R. Sadda, MD)	
5:00 – 5:10 PM	Volumetric Assessment of Retinoblastoma Tumor Size Using an Ultra-widefield Contact Handheld OCT Shuibin Ni, MS (Sponsored by Yifan Jian, MD)	
5:10 – 5:20 PM	Morphometrics of Drusen in Age-related Macular Degeneration and Normal Aging Eyes using Optical Coherence Tomography Giulia Corradetti, MD (Sponsored by Michael S. Ip, MD)	
5:20 – 5:30 PM	<b>Progression of Pentosan</b> <b>Polysulfate Maculopathy</b> <i>Ahmad Santina, MD</i> (Sponsored by David Sarraf, MD)	
5:30 – 5:40 PM	Closing Remarks David Sarraf, MD	

^Not part of the educational activity.

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