



Meeting At A Glance

July 20 — 25

American Society of Retina Specialists

36th Annual Meeting
Vancouver, BC, Canada



EVENT LOCATIONS

Instructional Courses

Friday, July 20

Rooms 109-110 *Level 1*
118-120 *Level 1*
212-214 *Level 2*

Sunday, July 22

Rooms 109-110 *Level 1*
118-120 *Level 1*
West Ballroom AB *Level 1*

Monday, July 23

Rooms 109-110 *Level 1*
118-120 *Level 1*
West Ballroom AB *Level 1*

Welcome Reception
Friday, July 20, 7 PM

Vancouver Aquarium

Women in Retina (WinR) Lunch
Saturday, July 21, 11:55 AM – 1:10 PM

Room 211 *Level 2*

Retina Case Conference
Saturday, July 21, 3:05-5:35 PM

West Ballroom AB *Level 1*

Fellows-in-Training (FIT) Section Reception
Saturday, July 21, 5:45-7:15 PM

Room 201 *Level 2*

Early Career Section (ECS) Lunch
Sunday, July 22, 12:25-1:40 PM

Room 211 *Level 2*

Early Career Section (ECS)
Member and Mentoring Reception
Sunday, July 22, 6:15-7:15 PM

Ocean Foyer *Level 1*

International Members and
Delegates Breakfast
Monday, July 23, 7:00-8:00 AM

Rooms 116-117 *Level 1*

Fellowship Directors' Section Lunch
Monday, July 23, 12:00-1:15 PM

Room 116-117 *Level 1*

Women in Retina (WinR) Case Conference
Monday, July 23, 5:15-7:15 PM

Room 211 *Level 2*

Gala in the Wild
Tuesday, July 24, 7:00 PM

Grouse Mountain

ONGOING FRIDAY, JULY 20 - WEDNESDAY, JULY 25

Speaker-Ready Room

West Room 101-102 *Level 1*

Continental Breakfasts & Breaks

West Exhibition Hall B
Exhibition Level

General Sessions

West Ballroom AB *Level 1*

Lunches

West Exhibition Hall B *Exhibition Level*

Posters

West Ballroom CD *Level 1*

PAT Survey Posters

West Ballroom CD *Level 1*

Exhibits

West Exhibition Hall B *Exhibition Level*

On Demand Kiosks
(papers, courses, and cases)

West Ballroom AB Foyer *Level 1*

3D Videos

West Exhibition Hall B *Exhibition Level*

Film Festival

West Exhibition Hall B *Exhibition Level*

Wellness Center

West Exhibition Hall B *Exhibition Level*

FRIDAY, JULY 20

1:00-5:15 PM Instructional Courses

1:00-2:15 PM
Rooms 109-110
 Challenge the Masters, **Calvin Mein, MD**
 Faculty: **Virgilio Morales-Canton, MD;**
Hugo Quiroz-Mercado, MD; Paul Tornambe, MD

1:00-2:15 PM
Rooms 212-214
 Online and Social Media Content for Continuing Education and Marketing for the Retina Specialist, **Jayanth Sridhar, MD**
 Faculty: **David Almeida, MD, MBA, PhD;**
Sunir Garg, MD; Ajay Kuriyan, MD, MS;
Charles Wykoff, MD, PhD

1:00-2:15 PM
Rooms 118-120
 Uveitis for the Retina Specialist: What Do I Do Now?, **Sumit Sharma, MD and Eduardo Uchiyama, MD**
 Faculty: **Thomas Albin, MD; Dilraj Grewal, MD;**
Glenn Jaffe, MD; Ashleigh Levison, MD;
Sunil Srivastava, MD

2:30-3:45 PM
Rooms 118-120
 Techniques and Tips for Vitrectomy for Complications of Proliferative Diabetic Retinopathy Surgeries (PDR), **Dharmesh Kar, MD, FVRS and Petros Carvounis, MD, FRCSC**
 Faculty: **Alay Banker, MD; Andrew Barkmeier, MD;**
Jorge Fortun, MD; Nora Khatib, MD;
Aniruddha Mahindrakar, MS;
Annal Meleth, MD; S. Natarajan, MD

2:30-3:45 PM
Rooms 212-214
 Cell Therapies for Vitreoretinal Diseases: Distinguishing Legitimate Research From Unproven “Cell Therapy” Clinics, **Ajay Kuriyan, MD**
 Faculty: **Thomas Albin, MD; Elliott Sohn, MD**

2:30-3:45 PM
Rooms 109-110
 Introduction to Imaging With OCT Angiography and En Face Imaging, **Caroline Bauman, MD; Mark Nelson, MD;**
David Sarraf, MD; Nadia Waheed, MD, MPH;
Andre Witkin, MD

4:00-5:15 PM
Rooms 118-120
 Pediatric Vitreoretinal Surgical Techniques: An Interactive Video Panel, **Lejla Vajzovic, MD**
 Faculty: **Caroline Bauman, MD; Audina Berrocal, MD;**
Philip Ferrone, MD; Mary Elizabeth Hartnett, MD;
Cynthia Ann Toth, MD; Michael Trese, MD;
Yoshihiro Yonekawa, MD

4:00-5:15 PM
Rooms 109-110
 Code Red in VR surgery, **Aniruddha Maiti, MBBS, DO, DNB, FRVS, FICO**
 Faculty: **Nishikant Borse, MS, FMRF;**
Carl Claes; Arnab Das, MD; Pravin Dugel, MD;
Subhendu Kumar Boral, MBBS, MD(AIIMS),
DNB(OPHTHALMOLOGY);
Aditya Kelkar, MS, DNB, FRCS;
Manish Nagpal, MD, FRCS (UK)

4:00-5:15 PM
Rooms 212-214
 Controversies in Vitreoretinal Diseases Management, **Malhar Soni, MD, MS, DNB, FRCS**
 Faculty: **Robert Avery, MD; Maria Berrocal, MD;**
Abdhisht Bhavsar, MD; Ehab El-Rayes, MD, PhD;
Kazuaki Kadonosono, MD; Zofia Michalewska, MD, PhD;
John Pollack, MD

7:00 PM
Welcome Reception, Vancouver Aquarium Lobby

SATURDAY, JULY 21**7:30-8:30 AM Continental Breakfast****8:00-8:15 AM Opening Comments, Timothy G. Murray, MD, MBA****8:15-10:15 AM AMD Neovascular Symposium**Moderators: **David Brown, MD** and **David Williams, MD, MBA**

- 8:15 AM Predictive Analysis of the 12-Week Dosing Status at Week 48 for Patients Receiving Brolucizumab in the HAWK and HARRIER Studies, **David Brown, MD**
- 8:23 AM A Comparison of the Anatomical Efficacy of Brolucizumab Versus Aflibercept in nAMD Patients: Matched 16-Week Results From the HAWK and HARRIER Studies, **Pravin Dugel, MD**
- 8:31 AM Phase 3 Randomized, Double-Masked Studies of Brolucizumab Versus Aflibercept in nAMD: Expanded Primary and Secondary Outcomes From HAWK/HARRIER, **Arshad Khanani, MD**
- 8:39 AM Discussion
- 8:46 AM Canadian Treat-and-Extend Analysis Trial With Ranibizumab in Patients With Neovascular AMD: CANTREAT Study 1-Year Results, **Peter Kertes, MD, FRCS(C)**
- 8:54 AM Outcomes of Antivascular Endothelial Growth Factor (VEGF) Therapy for Neovascular Age-Related Macular Degeneration in Routine Clinical Practice, **Andrew Moshfeghi, MD, MBA**
- 8:59 AM Percentage of Patients Maintained on Quarterly Anti-VEGF Dosing for the Treatment of Neovascular Age-Related Macular Degeneration Across Key Clinical Trials, **David Eichenbaum, MD**
- 9:04 AM A Real-World Analysis in 49,485 Eyes of Visual Acuity Outcomes and Anti-VEGF Therapy Intensity in Neovascular AMD Patients, **David Williams, MD, MBA**
- 9:09 AM Discussion
- 9:16 AM CFH and ARMS2 Genetic Risk Determines Progression to Neovascular Age-Related Macular Degeneration After Antioxidant and Zinc Supplementation, **Demetrios Vavvas, MD, PhD**
- 9:21 AM Do Anti-VEGF Injections Affect the Development of Neovascular AMD in Fellow Eyes? A Meta-analysis of Clinical Trials, **Robert Avery, MD**
- 9:26 AM The Cilioretinal Artery is Protective Against Choroidal Neovascularization in Age-Related Macular Degeneration, **Glenn Yiu, MD, PhD**
- 9:31 AM Comparing Outcomes of Standard and Reduced-Fluence Photodynamic Therapy in the Treatment of Polypoidal Choroidal Vasculopathy, **Colin Tan, MBBS, MMed (Ophth), FRCSEd (Ophth)**
- 9:39 AM Discussion
- 9:46 AM OCT Angiography (OCTA) Monitors the Influence of Different VEGF-I Drugs on a Specific CNVM, **Paul Tornambe, MD**
- 9:51 AM Inflammation After Aflibercept Injection in Association With a Specific Brand of Syringe That Releases Silicone Oil Droplets: A Case-Control Study, **Gustavo Melo, MD, PhD**

9:59 AM	Prophylactic Ranibizumab for Exudative AMD in Vulnerable Eyes With Nonexudative AMD Trial (PREVENT): A Prospective Controlled Clinical Trial, Maziar Lalezary, MD
10:04 AM	Endophthalmitis Rates After Bilateral Same Day Intravitreal Anti-VEGF Injections, Durga Borkar, MD
10:09 AM	Discussion
10:15-10:55 AM	Break
10:55-11:55 AM	AMD Non-neovascular Symposium
	Moderators: Neil Bressler, MD and Karl Csaky, MD, PhD
10:55 AM	Learnings From the Lampalizumab Chroma and Spectri Phase 3 Trials: Effect of Baseline Characteristics on Geographic Atrophy Progression, Carl Regillo, MD, FACS
11:03 AM	Common Age-Related Macular Degeneration Genetic Risk Variants and Geographic Atrophy Lesion Growth in the Chroma and Spectri Phase 3 Lampalizumab Trials, Karl Csaky, MD, PhD
11:11 AM	Discussion
11:16 AM	APL-2, a Complement C3 Inhibitor, Slows the Growth of Geographic Atrophy Secondary to AMD: 18-Month Results of a Phase 2 Trial (FILLY), Nathan Steinle, MD
11:24 AM	Subretinal Implantation of a Bioengineered Embryonic Stem Cell-Derived Retinal Pigment Epithelium Monolayer in Dry Age-Related Macular Degeneration, Amir Kashani, MD PhD
11:32 AM	Discussion
11:37 AM	Direct-to-Consumer Marketing by U.S. "Cell Therapy" Clinics for Retinal Conditions, Ajay Kuriyan, MD, MS
11:42 AM	Progression of Visual Function Endpoints in Early and Intermediate Age-Related Macular Degeneration, Eleonora Lad, MD, PhD
11:50 AM	Discussion
11:55 AM-1:10 PM	General Lunch & Women in Retina (WinR) Section Lunch
1:10-2:25 PM	Macular Holes Symposium
	Moderators: David Boyer, MD and Calvin Mein, MD
1:10 PM	Multilayered Inverse Internal Limiting Membrane Peeling – Is ILM the Culprit or Savior in the Treatment of Large Macular Holes and Macular Hole R.D.?, Srinivas Joshi, MD
1:18 PM	Structural Outcomes of Autologous Neurosensory Retinal Flap for Large and Refractory Macular Holes: International Collaborative Study Group, Dilraj Grewal, MD
1:23 PM	Functional Outcome of Autologous Neurosensory Retinal Flap for Large and Refractory Macular Holes: Multicenter International Collaborative Study Group, Kazuaki Kadosono, MD
1:28 PM	Comparative Study of Inverted ILM Flap and PRP as an Adjunct in Large Macular Holes, Naresh Kannan, MS, FNB, MBA
1:36 PM	Discussion
1:42 PM	Surgical Repair of Chronic Macular Holes: Functional and Anatomic Outcomes Using No Facedown Positioning, Raymond Iezzi, MD, MS

1:47 PM	Radial Retinal Incisions for the Treatment of Persistent Macula Holes, Christian Pruento, MD
1:52 PM	Retinal Function Assessment by Microperimetry-3 After Internal Limiting Membrane Peeling in Macular Hole Patients, Wu Liu, MD
1:57 PM	Discussion
2:02 PM	Effect of Baseline Ocular Characteristics on Vitreomacular Adhesion/Vitreomacular Traction Resolution With Ocriplasmin: ORBIT Study Subanalysis, David Boyer, MD
2:07 PM	Visual Outcomes of Primary Versus Secondary Epiretinal Membrane Following Vitrectomy and Cataract Surgery, Mohamed Soliman, MD, MSc
2:15 PM	Treatment of Focal Vitreomacular Traction With Pneumatic Vitreolysis, an Emerging Surgical Technique, Calvin Mein, MD
2:20 PM	Discussion

2:25-3:05 PM Break

3:05-4:30 PM Medical Case Conference

Moderators: **Sophie Bakri, MD** and **Judy Kim, MD**

Presenters:

J. Fernando Arevalo, MD, FACS

Sophie Bakri, MD

Andrew Barkmeier, MD

Paul Bernstein, MD, PhD

Bartlett Hayes, MD

Rehan Hussain, MD

Srinivas Joshi, MD

Jaclyn Kovach, MD

Ashleigh Levison, MD

Tara McCannel, MD, PhD

Omar Punjabi, MD

Sumit Sharma, MD

Lejla Vajzovic, MD

Jiong Yan, MD

Glenn Yiu, MD, PhD

Yoshihiro Yonekawa, MD

4:35-5:35 PM Surgical Case Conference

Moderators: **Carl Awh, MD** and **Carl Regillo, MD, FACS**

Presenters:

Mohamed AlBahiti, MBBS, FRCSC

Mohsin Ali, MD

Nishikant Borse, MS, FMRF

Jonathan Chang, MD

Albert Li, MD

Zofia Michalewska, MD, PhD

Manish Nagpal, MD, FRCS (UK)

Berna Ozkan, MD

Uriel Rubin, MD

Jayanth Sridhar, MD

Victor Villegas, MD

Christina Weng, MD, MBA

5:45-7:15 PM Fellows-in-Training (FIT) Section Reception

SUNDAY, JULY 22**7:30-8:30 AM Continental Breakfast****8:00-9:00 AM Ocular Oncology Symposium**

Moderators: **Zelia Correa, MD, PhD** and **Tara McCannel, MD, PhD**

- 8:00 AM Uveal Melanoma Fine Needle Aspiration Biopsy (FNAB) for Molecular Genomic Classification: Evaluation of Transscleral Versus Transvitreal Biopsy, **Timothy Murray, MD, MBA**
- 8:08 AM Long-term Outcomes of 27-Gauge Vitrectomy-Assisted Biopsy for Molecular Prognostication in Very Small Uveal Melanoma, **Tara McCannel, MD, PhD**
- 8:16 AM Comparative Survival of Patients With Posterior Uveal Melanoma Presenting Class 1A Versus Class 1B Gene Expression Profile, **Zelia Correa, MD, PhD**
- 8:24 AM 6-Month Results of a Phase 1b-2 Prospective Multicenter Clinical Trial of a Novel Targeted Therapy (AU-011) for the Treatment of Choroidal Melanoma, **Amy Scheffler, MD**
- 8:32 AM Discussion
- 8:39 AM Ranibizumab for Radiation Retinopathy (RRR) A Prospective, Multicenter Trial of Monthly Versus PRN Dosing for Radiation Retinopathy-Related Macular Edema, **Rajiv Anand, MD, FRCS**
- 8:44 AM Optical Coherence Tomography Angiographic (OCTA) Changes in Retinal Vasculature After Episcleral Plaque Brachytherapy (EPB) for Choroidal Melanoma, **Brian Toy, MD**
- 8:49 AM 3D Dosimetry Simulation for Plaque Selection in Uveal Melanoma: Comparison of COMS Versus Eye Physics Plaques, **Scott Walter, MD, MSc**
- 8:54 AM Discussion

9:00-10:20 AM Awards Ceremony

Moderators: **Mark Humayun, MD, PhD** and **Timothy Murray, MD, MBA**

- 9:00 AM Pyron Award Introduction, **Timothy Murray, MD**
- 9:05 AM Pyron Award, "Treating AMD: Back to the Future", **Joan W. Miller, MD**
- 9:25 AM Discussion
- 9:30 AM Founders Award Introduction, **Mark Humayun, MD, PhD**
- 9:35 AM Founders Award, Playing Your Part in Drug Development, **Wiley A. Chambers, MD**
- 9:55 AM Discussion
- 10:00 AM Early Career Section (ECS), Crystal Apple Award Presentation, **Audina M. Berrocal, MD**
- 10:05 AM ASRS Presidents' Retina Young Investigators Award Introduction
- 10:07 AM ASRS Presidents' Retina Young Investigators Award, Advancing Insights Into Diabetic Eye Disease, **Rishi P. Singh, MD**
- 10:15 AM Retina Image Bank, Image of the Year Award, **Brenda Fallas**

10:20-10:55 AM Break**10:55 AM-12:25 PM Surgical Symposium**Moderators: **Stanislao Rizzo, MD and Gaurav Shah, MD**

- 10:55 AM Heads-Free!: 3D Head-Mounted Display System for Vitreoretinal Surgery, **Murat Oncel, MD**
- 11:00 AM Can We Enhance 3D Visualization With Optical Coherence Tomography to Improve a Surgeon's Capabilities?, **Cynthia Toth, MD**
- 11:05 AM Scleral Transillumination With Digital Heads-up Display: A Novel Technique for Visualization During Vitrectomy Surgery, **Bozho Todorich, MD, PhD**
- 11:10 AM Intraoperative Use of Microscope-Integrated OCT for Subretinal Gene Therapy, **Ninel Gregori, MD**
- 11:15 AM Subretinal Transplantation of Biodegradable Photoreceptor Cell Delivery Scaffolds: Surgical Tools, Procedures and Outcomes, **Elliott Sohn, MD**
- 11:20 AM Discussion
- 11:29 AM Utility of Hypersonic Vitrector Settings During Vitreoretinal Surgery, **Sunir Garg, MD**
- 11:34 AM Combined Femtosecond Laser-Assisted Cataract Surgery and Small-Gauge Pars Plana Vitrectomy Using Different Devices: New Vitreoretinal Surgery Trend?, **Mauricio Maia, MD, PhD**
- 11:39 AM Single Intraoperative Subconjunctival Triamcinolone Acetonide Injection Versus 4-6-Week Topical Steroid Taper Following Vitreoretinal Surgery, **Elizabeth Atchison, MD**
- 11:44 AM A Novel Biocompatible Film to Promote Retinal Breaks Repair and Macular Hole Closure, **Stanislao Rizzo, MD**
- 11:49 AM Discussion
- 11:56 AM Argus II Retinal Prosthesis Complication Profile Pre- and Post-FDA Approval, **Aleksandra Rachitskaya, MD**
- 12:01 PM Comparison of Visual and Anatomic Results After Combined Boston Keratoprosthesis, Vitrectomy and Glaucoma Surgery (as Needed) to Keratoprosthesis Alone, **Jennifer Lim, MD**
- 12:06 PM Vitreous Biomarkers for Alzheimer's Disease in Patients Undergoing Vitrectomy and Cognitive Function Assessment, **Manju Subramanian, MD**
- 12:11 PM Orbital Emphysema as a Complication of Vitrectomy: Report of 12 Consecutive Cases, **Virgilio Morales-Canton, MD**
- 12:16 PM Discussion

12:25-1:40 PM General Lunch & Early Career Section (ECS) Lunch**1:40-2:25 PM Surgical Expert Panel**Moderators: **Philip Ferrone, MD and Jonathan Prenner, MD**

- 1:40 PM No Glue Sutureless Scleral Fixation of IOL: A New, Simple, Reproducible Technique, **Subhendu Boral, MBBS, MD(AIIMS), DNB(OPHTHALMOLOGY)**
- 1:43 PM Modified Flanged Scleral-Fixation for Intraocular Lens Insertion, **Richard Johnston, MD**

1:46 PM	Outcomes of Scleral Tunnel Fixation Techniques, Gareth Lema, MD, PhD
1:49 PM	Comparison of 2 Modified Sutureless Techniques of Scleral Fixation of Intraocular Lens, Aditya Kelkar, MS, DNB, FRCS
1:52 PM	Long-term Outcome of Pars Plana Vitrectomy and Sutured Scleral-Fixated Posterior Chamber Intraocular Lens Implantation or Repositioning, Gregg Kokame, MD, MMM
1:55 PM	Safety and Efficacy of Retropupillary Iris Claw Intraocular Lens Implant in Aphakia With Inadequate Capsular Support, Aniruddha Maiti, MBBS, DO, DNB, FRVS, FICO
1:58 PM	1-Year Outcomes of a Surgical Technique for Sutureless Intrasceral Fixation of a 3-Piece Intraocular Lens Using a 30-Gauge Needle, Jonathan Prenner, MD
2:01 PM	27-Gauge Sutureless Intrasceral Fixation of Intraocular Lenses with Haptic Flanging: Clinical Outcomes and a Disinsertion Force Study, Maxwell Stem, MD
2:06 PM	Discussion

2:25-2:50 PM Instrumentation Symposium

Moderators: **Carl Awh, MD and Raymond Iezzi, MD**

2:25 PM	Initial Experience With a Novel Hypersonic Vitrectomy Device for Vitreoretinal Surgery, Kevin Blinder, MD
2:33 PM	Clinical Feasibility of Ultra-rapid, Non-pharmacologic Anesthesia for Intravitreal Injection in Patients Receiving Anti-VEGF Treatment, Cagri Besirli, MD, PhD
2:38 PM	Evolving Trends in Practice Patterns of North American Vitreoretinal Surgery Fellows From 2010-2016, Robert Gizicki, MD, FRCSC, DABO
2:43 PM	Discussion

2:50-3:30 PM Break

3:30-4:45 PM Instructional Courses

3:30-4:45 PM <i>Rooms 109-110</i>	The Winning Pitch Challenge: The Retina Version of "Shark Tank"...Without the Bite (no CME) Moderators: John Pollack, MD and David Williams, MD, MBA Judges: Matthew Chapin; Paul Hallen; William Link, PhD; and Angela Macfarlane
3:30-4:45 PM <i>Rooms 118-120</i>	Retinal Gene Therapy: Clinical Trial Updates and Surgical Considerations, Christine Kay, MD Faculty: Benjamin Bakall, MD, PhD; Ninel Gregori, MD; Elliott Sohn, MD; Kimberly Stepien, MD; Karmen Trzupek, MS
3:30-4:45 PM <i>West Ballroom AB</i>	Clinical Trials "Unplugged": Real, Practical Questions and Answers, Pravin Dugel, MD and Geoffrey Emerson, MD, PhD Faculty: Sophie Bakri, MD; Jeffrey Heier, MD; J. Michael Jumper, MD; Arshad Khanani, MD; Yasha Modi, MD; Jonathan Prenner, MD; Nadia Waheed, MD, MPH; Christina Weng, MD, MBA; Charles Wyckoff, MD, PhD; Yoshihiro Yonekawa, MD

5:00-6:00 PM Scientific Poster Q&A and Reception

6:15-7:15 PM Early Career Section (ECS) Member and Mentoring Reception

MONDAY, JULY 23

7:00-8:00 AM International Members and Delegates Breakfast

7:30-8:30 AM Continental Breakfast

8:00-9:10 AM Imaging, Digital, Angiography Symposium

 Moderators: **Manish Nagpal, MD, FRCS (UK)**
and John Pollack, MD

- 8:00 AM Clinical and OCT Findings in Chronic Solar Retinopathy, **Shaileen Parikh, MS, DO, FMRF**
- 8:05 AM Misdiagnosis and Mistreatment of Optic Disc Pit Maculopathy – SD-OCT Features for Accurate Diagnosis: Multicenter International Study, **Matias Iglicki, MD**
- 8:10 AM Correlation of Active and Healing Features of Serpiginous-like Choroiditis (SC) on Optical Coherence Tomography Angiography (OCTA) With Indocyanine Green Angiography (ICGA), **Manish Nagpal, MD, FRCS (UK)**
- 8:18 AM Short-term Oral Mifepristone for the Treatment of Central Serous Chorioretinopathy (STOMP-CSC): A Placebo-Controlled Clinical Trial, **Roger Goldberg, MD, MBA**
- 8:23 AM Discussion
- 8:27 AM Nonexudative Choroidal Neovascularization Identified by Optical Coherence Tomographic Angiography Is a Precursor to Exudation, **David Huang, MD, PhD**
- 8:35 AM The Use of Swept Source Optical Coherence Tomography Angiography (SS-OCTA) in Patients With Uveitis and Retinal Vasculitis, **Sumit Sharma, MD**
- 8:43 AM Acute Macular and Peripapillary Angiographic Changes With Intravitreal Injections, **Alexander Barash, MD**
- 8:51 AM Discussion
- 8:55 AM Correlation of Peripheral Nonperfusion on Ultra-widefield Fluorescein Angiography with Macular Flow Loss on OCT Angiography in Sickle Cell Retinopathy, **Adrienne Scott, MD**
- 9:00 AM Ultra-widefield OCTA for Evaluation of Vascular Perfusion, **Kasra Rezaei, MD**
- 9:05 AM Discussion
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9:10-9:40 AM “Complications” or Are They?: Why We Can NEVER Get Enough ReST

 Moderator: **Jeffrey Heier, MD**

 Panelists: **Peter Kaiser, MD, Geoffrey Emerson, MD, PhD; J. Michael Jumper, MD; Ehab El Rayes, MD, PhD**

- 9:10 AM Assessing the Level of Evidence for Commercially Available Cell Therapy Treatments for Retinal Diseases at U.S. Cell Therapy Clinics, **Daniel Simhaee, MD**
- 9:13 AM Nd: YAG Capsulotomy is Associated With Sustained IOP Elevation in Patients Treated With Anti-VEGF Injections, **Assaf Dotan, MD**
- 9:16 AM Complications Following Laser Vitreolysis for Symptomatic Floaters, **Paul Hahn, MD, PhD**
- 9:19 AM Aflibercept-Related Sterile Intraocular Inflammation, **Philip J. Ferrone, MD**
- 9:22 AM Discussion
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9:40-10:20 AM Break

10:20-11:05 AM	Retinal Vascular Disease Symposium
	Moderators: Alay Banker, MD and Linda Lam, MD, MBA
10:20 AM	Association of Disorganization of Retinal Inner Layers With Clinical Outcomes and Fluorescein Angiographic Features in Central Retinal Vein Occlusion, Akshay Thomas, MD, MS
10:25 AM	Disorganization of Retinal Inner Layers Predicts Visual Acuity Response to Anti-VEGF Therapy for Macular Edema Secondary to Retinal Vein Occlusion, Amy Babiuch, MD
10:30 AM	Peripheral Findings in Macular Telangiectasis Type 2, Stavros Moysidis, MD
10:35 AM	Discussion
10:42 AM	Comparison of Visual Outcome in Neovascular Glaucoma to Anterior Segment Neovascularization Without Glaucoma, Hossein Ameri, MD, PhD, FRCSI, MRCOphth
10:50 AM	New Biosimilar Bevacizumab and Ranibizumab for Retinal Diseases, Alay Banker, MD
10:58 AM	Discussion
11:05 AM-12:00 PM	All That's Worth KNOWING: How to Assess the VALUE of a Retinal Specialist With and Without "Big Data"
	Moderator: Timothy Murray, MD, MBA
	Panelist: John Pollack, MD
11:05 AM	EHR Errors in Documenting and Billing Procedures, Leonard H. Ginsburg, MD
11:08 AM	Relativity, Time, and the Devaluation of Retinal Procedures During the Past Decade, John T. Thompson, MD
11:11 AM	Return to the Operating Room After Vitrectomy for Vitreous Opacities: IRIS Registry Analysis, D. Wilkin Parke, MD
11:14 AM	Discussion
12:00-1:15 PM	General Lunch & Fellowship Directors' Section Lunch
1:15-1:35 PM	Business Meeting—ASRS Members Only
1:35-1:40 PM	PAT Survey, Paul Hahn, MD, PhD
1:40-1:45 PM	Global Trends, Rishi Singh, MD
1:45-3:00 PM	Instructional Courses
1:45-3:00 PM <i>West Ballroom AB</i>	RETINAWS: When the Going Gets Tough, the Tough Get Going-Challenging Cases in Vitreoretinal Surgery, Kourous Rezaei, MD Faculty: J. Fernando Arevalo, MD, FACS; Ehab El-Rayes, MD, PhD; Geoffrey Emerson, MD, PhD; Jose Garcia Arumi, MD, PhD; Stratos Gotzaridis, MBBS, MD; Timothy Murray, MD, MBA; Manish Nagpal, MD, FRCS (UK); Kirk Packo, MD, FACS; Stanislao Rizzo, MD; Homayoun Tabandeh, MD; Charles Wykoff, MD, PhD
1:45-3:00 PM <i>Rooms 118-120</i>	Women in the Retina: How to Succeed in Different Practice Environments, From Academia to Private Practice, Audina Berrocal, MD Faculty: Kristen Hartley, MD; Geeta Lalwani, MD; Lisa Olmos de Koo, MD, MBA; Aleksandra Rachitskaya, MD; Krista Rosenberg, MD; Stephanie Vanderveldt, MD; Christina Weng, MD, MBA

1:45-3:00 PM: Visualization in Vitreoretinal Surgery: Optimization, Technology, and Pearls, **Andrew Barkmeier, MD and Alan Franklin, MD, PhD**
Faculty: **Sophie Bakri, MD; Petros Carvounis, MD; Jorge Fortun, MD; Raymond Iezzi, MD; Christopher Riemann, MD**

3:00-3:45 PM Break

3:45-5:00 PM Instructional Courses

3:45-5:00 PM Vitreoretinal Surgery Rounds: The ARC Experience, **Jeremy Wolfe, MD, MS**
Rooms 118-120 Faculty: **Tarek Hassan, MD; Virgilio Morales-Canton, MD; Stanislao Rizzo, MD; Yoshihiro Yonekawa, MD**

3:45-5:00 PM Vitreoretinal Surgical Techniques: (How Do I Do It?)
Rooms 109-110 3D Video Panel, **Ehab El-Rayes, MD, PhD**
Faculty: **Carl Awh, MD; Carl Claes, MD; Jose Garcia Arumi, MD, PhD; Makoto Inoue, MD; Kazuaki Kadonosono, MD; Kirk Packo, MD, FACS; Kourous Rezaei, MD; Christopher Riemann, MD; Stanislao Rizzo, MD; Khalid Sabti, MD**

3:45-5:00 PM Vitreoretinal Surgical Rounds: the Duke Approach, **Dilraj Grewal, MD**
West Ballroom AB Faculty: **Thomas Albin, MD; Maria H. Berrocal, MD; Dean Elliott, MD; Sharon Fekrat, MD FACS; Allen Ho, MD; Glenn Jaffe, MD; Ratimir Lazic, MD, PhD; Cynthia Ann Toth, MD; Lejla Vajzovic, MD**

5:15-7:15 PM WinR Case Conference

TUESDAY, JULY 24**7:30-8:30 AM Continental Breakfast****8:00-9:40 AM Diabetic Retinopathy 1 Symposium**

Moderators: **Nancy Holekamp, MD** and **Peter Kaiser, MD**

- 8:00 AM Treat-and-Extend Versus Bimonthly Dosing With Aflibercept for the Treatment of Diabetic Macular Edema, 1-Year Outcomes (EVADE Study), **Dilsher Dhoot, MD**
- 8:08 AM 2-Year Outcomes From Randomized Trials of Anti-VEGF Treatments for Diabetic Retinopathy (DR) and Diabetic Macular Edema (DME), **Geeta Lalwani, MD**
- 8:16 AM Effect of Adding Dexamethasone to Continued Ranibizumab Treatment in Patients With Persistent Diabetic Macular Edema, **Raj Maturi, MD**
- 8:24 AM Prospective Evaluation of Pain and Inflammation Following Injection of Aflibercept or Ranibizumab in Patients With Diabetic Macular Edema: SOLAR Study, **Nikolas London, MD**
- 8:29 AM Discussion
- 8:36 AM Randomized, Prospective, Double-Masked, Controlled Phase 2b Trial to Evaluate the Safety and Efficacy of ALG-1001 (Luminate®) in Diabetic Macular Edema, **Peter Kaiser, MD**
- 8:44 AM Combination Therapy With Intravitreal Nesvacumab+Aflibercept in Diabetic Macular Edema: The Phase 2 RUBY Trial, **Jeffrey Heier, MD**
- 8:52 AM Anti-VEGF/Anti-Angiopoietin-2 Bispecific Antibody RG7716 in Diabetic Macular Edema: 36-Week Results from the Phase 2 BOULEVARD Clinical Trial, **Rishi Singh, MD**
- 9:00 AM Discussion
- 9:06 AM Reduction in the Frequency of Diabetic Macular Edema (DME) Therapies Post-0.2 µg/Day Fluocinolone Acetonide (FAC) Implant Treatment Results, **Sam Mansour, MD, MSc, FACS, FRCS(C)**
- 9:14 AM Advanced Image Analysis and Machine-Learning Assessment of the Impact of Aflibercept on Anatomic Feature and Flow Dynamics in the PERMEATE Study, **Justis Ehlers, MD**
- 9:19 AM A Model to Predict the 3-Year Risk of Needing Treatment for Diabetic Macular Edema, **Bobek Modjtahedi, MD**
- 9:24 AM Outcomes of Intravitreal Antivascular Endothelial Growth Factor (VEGF) Therapy for Diabetic Macular Edema in Routine Clinical Practice, **John Pitcher, MD**
- 9:29 AM 2 Real-World Analyses of Treatment Burden Associated With Intravitreal Injections for DME Prior to 0.2 µg/Day Fluocinolone Acetonide (FAC), **Nancy Holekamp, MD**
- 9:34 AM Discussion

9:40-10:20 AM Break

10:20 AM-12:00 PM Diabetic Retinopathy 2 Symposium

Moderator: **Susan Bressler, MD and Charles Wykoff, MD, PhD**

- 10:20 AM Panretinal Photocoagulation Versus Ranibizumab for Proliferative Diabetic Retinopathy: Should Baseline Characteristics Affect Choice of Treatment?, **Susan Bressler, MD**
- 10:28 AM Analysis of Vitreous Biomarkers Associated With Diabetic Macular Edema in the Setting of Proliferative Diabetic Retinopathy- A Multicohort Study, **Kameran Lashkari, MD**
- 10:33 AM To Treat or Not to Treat: Are We Sacrificing Treatment Outcomes by Allowing Diabetic Retinopathy (DR) to Enter the Proliferative Stage?, **Michael Elman, MD**
- 10:38 AM Earliest Diabetic Retinopathy Detection Using Optical Coherence Tomography Angiography (OCTA) Perfused Capillary Density, **Richard Rosen, MD, DSc(Hon)**
- 10:43 AM Intravitreal Aflibercept for Moderately Severe to Severe Nonproliferative Diabetic Retinopathy (NPDR): the Phase 3 PANORAMA Study, **Charles Wykoff, MD, PhD**
- 10:51 AM Randomized Trial of Panretinal Photocoagulation Versus Ranibizumab for Proliferative Diabetic Retinopathy: 5-Year Outcomes, **Jeffrey Gross, MD**
- 10:56 AM Discussion
- 11:07 AM Applying the DRCR.net Anti-VEGF Treatment Algorithm for Proliferative Diabetic Retinopathy: Neovascular Outcomes Over 2 Years, **Christina Flaxel, MD**
- 11:15 AM Outcomes in Proliferative Diabetic Retinopathy Patients Lost to Follow-up After Panretinal Photocoagulation Versus Antivascular Endothelial Growth Factor, **Daniel Su, MD**
- 11:23 AM Quantitative Ultra-widefield Angiography: Correlation of Microaneurysm Burden With Anatomic and Angiographic Features in Diabetic Retinopathy, **Joseph Boss, MD**
- 11:28 AM Discussion
- 11:34 AM Effect on Treatment Burden Post- Versus Pre-Iluvien Based on Prior DME Treatments, **Caesar Luo, MD**
- 11:39 AM Best Corrected Visual Acuity (BCVA) and Central Macular Thickness (MAT) Outcomes After Fluocinolone Acetonide Intravitreal Implant Injection, **Dana Deupree, MD**
- 11:44 AM Preoperative Intravitreal Bevacizumab for TRD Secondary to PDR: A Prospective Randomized Clinical Trial of the PACORES Group, **J, Fernando Arevalo, MD, FACS**
- 11:49 AM Does the Presence of Diabetic Retinopathy Influence the Visual Outcome After Cataract Surgery?, **Ahmed Sallam, MD, PhD, FRCOphth**
- 11:54 AM Discussion

12:00-1:20 PM Lunch

1:20-1:45 PM	Diabetic Retinopathy 3 Symposium Moderators: Michael Singer, MD and Christina Weng, MD, MBA
1:20 PM	The Translation of CST to Visual Function: Persistent DME and QOL Measures With FAc Implants in the FAME Study, Michael Singer, MD
1:25 PM	Discussion
1:30 PM	Patient-Centric Assessment of the Quality of Care Delivered in a Diabetic Retinopathy Teleretinal Screening Program, Christina Weng, MD, MBA
1:35 PM	Determining Epidemiological Factors for Improved Telemedicine Screening Efficacy for Diabetic Retinopathy, Ankoor Shah, MD
1:40 PM	Discussion
1:45-3:05 PM	Pediatric Retina, ROP Symposium Moderators: Audina Berrocal, MD and Linda Cernichiaro Espinosa, MD
1:45 PM	Parameters Affecting Postoperative Success of Surgery for Stage 4a/4b ROP, Sengul Ozdek, MD
1:53 PM	ROP Screening With Ultra-widefield Imaging, Guillermo Salcedo-Villanueva, MD
2:01 PM	Evaluation of an Automated Severity Score in Retinopathy of Prematurity, J. Peter Campbell, MD, MPH
2:06 PM	Discussion
2:14 PM	Fluorescein Angiography Findings Post-intravitreal Bevacizumab for ROP: Can It Predict the Late-Onset Risk of Recurrence?, Swati Agarwal-Sinha, MD
2:22 PM	Optical Coherence Tomography Angiography in Pediatric Patients, Lejla Vajzovic, MD
2:27 PM	High Magnification Photography and Fluorescein Angiography in Infants With Congenital Zika Syndrome, Camila Ventura, MD, PhD
2:32 PM	Report of the Safety and Efficacy of the Use of a Short 32-Gauge Needle for Intravitreal Anti-VEGF Injections for ROP: A Multicenter Retrospective Study, Linda Cernichiaro-Espinosa, MD
2:37 PM	Surgical Indications, Outcomes, and Complications of Pediatric Endoscopic Vitrectomy in 285 Consecutive Cases, Aaron Nagiel, MD, PhD
2:45 PM	Retinoschisis in Coats' Disease: Clinical Picture, Therapeutic Considerations, Management Outcomes and Histopathological Correlation, Audina Berrocal, MD
2:53 PM	Discussion
3:05-3:50 PM	Break
3:50-4:20 PM	Hereditary Retinal Disease & Genetics Symposium Moderators: Julia Haller, MD and Baruch Kuppermann, MD, PhD

3:50 PM	Safety and Activity of a Single, Intravitreal Injection of Human Retinal Progenitor Cells for Treatment of Retinitis Pigmentosa (RP), Baruch Kuppermann, MD, PhD
3:58 PM	Year 1 Time to Mobility Test Completion in a Voretigene Neparvovec-rzyl Trial in Subjects With RPE65 Mutation-Associated Inherited Retinal Disease, Julia Haller, MD
4:03 PM	3-Year Update for the Phase 3 Voretigene Neparvovec-rzyl Study in Biallelic RPE65 Mutation-Associated Inherited Retinal Disease, Stephen Russell, MD
4:11 PM	Discussion
4:20-5:00 PM	The ETHICS of Retina: Also Known as DARN I Cannot Believe My Colleague Did (Said) THAT Moderator: Tarek Hassan, MD Panelists: Dean Elliott, MD; John Pollack, MD; Jonathan Prenner, MD; Alan Wagner, MD, FACS
5:00-5:15 PM	Film Festival Awards Brett Foxman, MD and Timothy Murray, MD, MBA
7:00 PM	Gala in the Wild, Grouse Mountain

WEDNESDAY, JULY 25**7:30-8:30 AM Continental Breakfast****8:00-8:50 AM Retinal Detachment Symposium**

Moderators: **Prithvi Mruthyunjaya, MD, MHS** and **Edwin Ryan, MD, MSc**

- 8:00 AM Vision-Related Functioning in Patients Undergoing Pneumatic Retinopexy Versus Vitrectomy for Primary Retinal Detachment: Subanalysis of the PIVOT Trial, **Carolina Francisconi, MD**
- 8:05 AM How Scleral Buckling Alters Vitreous Fluidics: Computer Modeling, **Tommaso Rossi, MD, EBOD**
- 8:10 AM Efficacy of Preoperative Intravitreal Injection of Gas as an Adjunct to Pars Plana Vitrectomy for Rhegmatogenous Retinal Detachment Repair, **Rachel Trussart, MD**
- 8:15 AM Discussion
- 8:20 AM Outcomes of Repair of Moderately Complex Phakic Rhegmatogenous Retinal Detachment (RRD): The PRO Study (Primary Retinal Detachment Outcomes), **Edwin Ryan, MD**
- 8:25 AM Differences in Metamorphopsia and OCT Changes After Retinal Detachment Repair: RCT Comparing Pneumatic Retinopexy to Vitrectomy at 1 Year (PIVOT Trial), **Rajeev Muni, MD, MSc, FRCS(C)**
- 8:30 AM Discussion
- 8:35 AM Endoscopy-Assisted Vitrectomy in Complex Rhegmatogenous Retinal Detachment: Is It an Advantage?, **Flavio Rezende, MD, PhD**
- 8:40 AM Structural Outcomes and Imaging Observations Following Scleral Window to Treat Exudative Detachment in Uveal Effusion Syndrome, **Prithvi Mruthyunjaya, MD, MHS**
- 8:45 AM Discussion

8:50-9:45 AM Inflammatory & Infectious Disease Symposium

Moderators: **Glenn Jaffe, MD** and **Quan Nguyen, MD, MSc**

- 8:50 AM Confirmatory 1-Year Study Results of an Injectable Fluocinolone Acetonide Intravitreal Insert to Treat Noninfectious Posterior Segment Uveitis, **Glenn Jaffe, MD**
- 8:58 AM Controlling Uveitic Recurrences: Results From a Phase 3 Study of 0.18 mg Fluocinolone Acetonide Insert (FAi) in Noninfectious Posterior Uveitis, **Quan Nguyen, MD, MSc**
- 9:06 AM Injectable Fluocinolone Acetonide Intravitreal Insert Reduces the Need for Adjunctive Treatment in Noninfectious Posterior Segment Uveitis, **Sunil Srivastava, MD**
- 9:11 AM Discussion
- 9:15 AM Antimicrobial Injection Frequency in the Management of Presumed Bacterial Endophthalmitis: An International Survey of Retina Specialists, **Colin McCannel, MD**
- 9:20 AM Endophthalmitis After Intravitreal Injection of Vascular Endothelial Growth Factor (VEGF) Inhibitors: Management and Visual Outcomes, **Kunyong Xu, MD, MHSc**

9:25 AM	Endophthalmitis Rates of Prefilled Ranibizumab Syringes Compared to Conventional Ranibizumab Vials: An International Multicenter Study, Yoshihiro Yonekawa, MD
9:30 AM	Long-term Anti-VEGF Treatment Following Vitrectomy for Endophthalmitis in Patients With Neovascular AMD, Zofia Michalewska, MD, PhD
9:35 AM	Clinical Course and Outcomes at 3 Years After Severe Fungal Endophthalmitis in 14 Eyes Following Contaminated Bevacizumab Intravitreal Injection, Mallika Goyal, MD
9:40 AM	Discussion

9:45-10:00 AM Break

10:00-10:30 AM My Practice Is Worth WHAT?: Equity Acquisition in the Retina World

Moderator: **Robert Avery, MD**

Panelists: **Carl Baker, MD; Michael Jacobson, MD; Reginald Sanders, MD**

Why the Retina Business Model Is Changing Right in Front of You, and Are You Ready?,
Michael Jacobson, MD

10:30-11:00 AM Late Breaking Abstracts

Moderator: **Timothy Murray, MD, MBA**

10:30 AM	SCORE2 Month 6 to Month 12 Results: 12 Month Outcomes of Treatment Change among Poor Responders at Month 6, Michael Ip, MD
10:40 AM	Suprachoroidally Injected CLS-TA Improves Visual Acuity and Macular Edema in Noninfectious Uveitis: Results of the Phase 3 PEACHTREE Study, Steven Yeh, MD
10:50 AM	LADDER Trial of the Port Delivery System with Ranibizumab: Initial Study Results, Carl Awh, MD

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