

# Advances in Pediatric Retina

The logo for Advances in Pediatric Retina (APR) 2021. It features the letters 'A', 'P', and 'R' in large, bold, white font, each inside a colored square: 'A' in pink, 'P' in orange, and 'R' in purple. To the right of these squares, the year '2021' is written vertically in a green, sans-serif font.

September 18-19, 2021 | Program

## Saturday, September 18, 2021 | 9:00 AM – 3:00 PM ET

- 9:00 – 9:10 AM Introduction  
*Cynthia A. Toth, MD*
- 9:10 – 9:35 AM** **Session 1: Pediatric Retina Research**  
*Moderator: Mary Elizabeth Hartnett, MD*
- 9:10 – 9:16 AM Heparin-Binding VEGFR1 Variants as Long-Acting VEGF Inhibitors for Treatment of ROP  
*Eric Nudleman, MD, PhD*
- 9:16 – 9:22 AM HIF Stabilization Prevents ROP and PVI  
*Jonathan Sears, MD*
- 9:22 – 9:35 AM** **Pediatric Retina Research Panel**  
*Moderators: Mary Elizabeth Hartnett, MD and Jonathan Sears, MD*  
*Panelists: Eric Nudleman, MD, PhD and Julia Shulman, MD*
- 9:35 – 10:05 AM** **Session 2: International Classification of ROP Update (ICROP3)**  
*Moderator: Anna Ells, MD*
- 9:35 – 9:41 AM ICROP3  
*Michael F. Chiang, MD*
- 9:41 – 9:47 AM Updates from the ICROP3 Conference: Regression and Reactivation  
*Mary Elizabeth Hartnett, MD*
- 9:47 – 10:05 AM** **International Classification of ROP Update (ICROP3) Panel**  
*Moderators: Antonio Capone Jr., MD and Anna Ells, MD*  
*Panelists: Michael F. Chiang, MD; Mary Elizabeth Hartnett, MD; David Wallace, MD, MPH*
- 10:05 – 10:39 AM** **Session 3: ROP Treatments**  
*Moderator: David Wallace, MD, MPH*
- 10:05 – 10:11 AM Why Pharmacological Therapy Should be the Primary Treatment of Choice  
*Anna Ells, MD*
- 10:11 – 10:17 AM Implications of Persistent Peripheral Avascular Retina in ROP  
*Baker Hubbard, MD*
- 10:17 – 10:20 AM Rapid Fire:  
The Needle Stick  
*Safa Rahmani, MD*

- 10:20 – 10:23 AM Rapid Fire:  
ROPIC- Retinopathy of Prematurity Injection Consortium  
*Nimesh Patel, MD*
- 10:23 – 10:39 AM **ROP Treatments Panel**  
*Moderators: Michael F. Chiang, MD and David Wallace, MD, MPH*  
*Panelists: Anna Ells, MD and Baker Hubbard, MD*  
*Rapid Fire Presenters: Nimesh Patel, MD and Safa Rahmani, MD*
- 10:39 – 11:06 AM **Session 4: Keynote Speaker**  
*Moderator: Cynthia A. Toth, MD*
- 10:39 – 10:41 AM Introduction  
*Cynthia A. Toth, MD*
- 10:41 – 10:56 AM Keynote: Challenges in the Treatment for Severe Retinopathy of Prematurity  
*Hiroko Terasaki, MD*
- 10:56 – 11:06 AM **Keynote Discussion Panel**  
*Discussants: Cynthia A. Toth, MD; Mary Elizabeth Hartnett, MD; Lejla Vajzovic, MD*  
*With Keynote Speaker: Hiroko Terasaki, MD*
- 11:06 – 11:49 AM **Session 5: Gene Therapy and Emerging Therapies for Pediatric Retinal Diseases**  
*Moderator: Lejla Vajzovic, MD*
- 11:06 – 11:12 AM Emerging Therapies for Pediatric Retinal Diseases  
*Antonio Capone Jr., MD*
- 11:12 – 11:18 AM Real World Outcomes of Voretigene Neparvovec-rzyl Subretinal Gene Therapy for Pediatric Biallelic RPE65 Mutation  
*Cagri G. Besirli, MD, PhD*
- 11:18 – 11:24 AM Practical Considerations for Subretinal Gene Transfer Therapy  
*Robert A. Sisk, MD*
- 11:24 – 11:27 AM Rapid Fire:  
Perifoveal Chorioretinal Atrophy following Subretinal Voretigene Neparvovec-rzyl for LCA  
*Aaron Nagiel, MD, PhD*
- 11:27 – 11:49 AM **Gene Therapy and Emerging Therapies Panel**  
*Moderator: Lejla Vajzovic, MD*  
*Panelists: Cagri G. Besirli, MD, PhD; Antonio Capone Jr., MD; Robert A. Sisk, MD*  
*Rapid Fire Presenter: Aaron Nagiel, MD, PhD*
- 11:49 AM – 12:26 PM **Session 6: Coats' Disease and Other Retinal Vascular Diseases I**  
*Moderator: J. Michael Jumper, MD*
- 11:49 – 11:55 AM Anti-VEGF Therapy for Coats' Disease: What Is The Role?  
*J. Michael Jumper, MD*
- 11:55 AM – 12:01 PM Management of Advanced Coats' Disease  
*George Caputo, MD*
- 12:01 – 12:03 PM Rapid Fire:  
Method to Drain Subretinal Fluid in Coats' Disease  
*Guangda Deng, MD*

- 12:03 – 12:05 PM      Rapid Fire:  
Subretinal Fluid Drainage in Coats Disease  
*David Levine, MD*
- 12:05 – 12:07 PM      Rapid Fire:  
A Shocking Association  
*John Hinkle, MD*
- 12:07 – 12:26 PM**      **Management of Advanced Coats' Disease Panel**  
*Moderators: J. Michael Jumper, MD and Thomas C. Lee, MD*  
*Panelists: George Caputo, MD; Mary Elizabeth Hartnett, MD; Lejla Vajzovic, MD*  
*Rapid Fire Presenters: Guangda Deng, MD; John Hinkle, MD; David Levine, MD*
- 12:26 – 1:00 PM**      **Session 7: Other Retinal Vascular Diseases II**  
*Moderator: Cagri G. Besirli, MD, PhD*
- 12:26 – 12:32 PM      Update in Understanding and Managing FEVR  
*Kimberly A. Drenser, MD, PhD*
- 12:32 – 12:38 PM      OCT Angiography and Brain MRI in Pediatric Sickle Cell Disease  
*Adrienne W. Scott, MD*
- 12:38 – 12:40 PM      Rapid Fire:  
Familial Exudative Vitreoretinopathy Management  
*Alexandre Grandinetti, MD, MSc, PhD*
- 12:40 – 12:42 PM      Rapid Fire:  
Surgical Treatment of Combined Retinal Detachment in Familial Exudative  
Vitreoretinopathy  
*Tso-Ting Lai, MD*
- 12:42 – 12:44 PM      Rapid Fire:  
Bilateral Stage 5 Traction Retinal Detachment in a 6-month-old Female with Simultaneous  
FZD4 Variant and 18p Deletion  
*Taku Wakabayashi, MD, PhD*
- 12:44 – 1:00 PM**      **Surgical Challenges in Retinal Vascular Diseases Panel**  
*Moderators: Kimberly A. Drenser, MD, PhD and Cagri G. Besirli, MD, PhD*  
*Panelists: María Ana Martínez-Castellanos, MD and Adrienne W. Scott, MD*  
*Rapid Fire Presenters: Alexandre Grandinetti, MD, MSc, PhD; Tso-Ting Lai, MD; Taku  
Wakabayashi, MD, PhD*
- 1:00 – 1:35 PM**      **Session 8: Retinal Vascular Occlusion, Vasculitis, and Leukemia**  
*Moderator: Lisa J. Faia, MD*
- 1:00 – 1:06 PM      Advances in Management of Retinal Vascular Occlusion and Vasculitis in Pediatric  
Patients  
*Dilraj S. Grewal, MD*
- 1:06 – 1:12 PM      Vascular Occlusive and Central Nervous System Disease  
*Mays A. El-Dairi, MD*
- 1:12 – 1:14 PM      Rapid Fire:  
The Eyes are a Window to the Brain  
*Sophie Cai, MD*

- 1:14 – 1:16 PM Rapid Fire:  
Retinal Vascular Occlusion in a Child  
*Frank L. Brodie, MD, MBA*
- 1:16 – 1:18 PM Rapid Fire:  
Amniotic Membrane Graft for Retinal Detachment with Macula Hole in a Child with Retinal Vessel Occlusion and MTHFR Variant  
*Wei Wei Lee, MD*
- 1:18 – 1:35 PM** **Retinal Vascular Occlusion, Vasculitis, and Leukemia Panel**  
*Moderators: Lisa J. Faia, MD and Dilraj S. Grewal, MD*  
*Panelists: Mays A. El-Dairi, MD and Adrienne W. Scott, MD*  
*Rapid Fire Presenters: Frank L. Brodie, MD, MBA; Sophie Cai, MD; Wei Wei Lee, MD*
- 1:35 – 2:03 PM** **Session 9: Pediatric Retinal Surgery I**  
*Moderator: Baker Hubbard, MD*
- 1:35 – 1:41 PM Considerations In Pediatric Retinal Detachment Surgery  
*Caroline R. Baumal, MD*
- 1:41 – 1:47 PM Surgical Management of Pediatric Cataracts  
*Andres Kychenthal, MD*
- 1:47 – 1:49 PM Rapid Fire:  
Retinal Detachment, Coloboma and Dislocated Lens  
*Amir Hajrasouliha, MD*
- 1:49 – 1:51 PM Rapid Fire:  
Pars Plana Lensectomy and Vitrectomy in a young Patient with Marfan Syndrome  
*Diana Laura, MD*
- 1:51 – 2:03 PM** **Pediatric Retinal Surgery Panel I**  
*Moderators: Caroline R. Baumal, MD and Baker Hubbard, MD*  
*Panelists: Andres Kychenthal, MD and Robert A. Sisk, MD*  
*Rapid Fire Presenters: Amir Hajrasouliha, MD and Diana Laura, MD*
- 2:03 – 2:43 PM** **Session 10: Pediatric Retinal Surgery II**  
*Moderator: Şengül Özdek, MD*
- 2:03 – 2:09 PM Persistent Fetal Vasculature  
*Yoshihiro Yonekawa, MD*
- 2:09 – 2:15 PM Pediatric Epiretinal Membranes  
*Lejla Vajzovic, MD*
- 2:15 – 2:17 PM Rapid Fire:  
Volcanic Epiretinal Membrane and Macular Fold Associated with Terson Syndrome in a 2-year-old Male  
*Rebekah Gensure, MD, PhD*
- 2:17 – 2:19 PM Rapid Fire:  
Bilateral Tractional Retinal Detachment in an Infant  
*Jinghua Liu, PhD*
- 2:19 – 2:21 PM Rapid Fire:  
Bilateral Surgery for Severe Microphthalmia  
*Jessica Lee, MD*

2:21 – 2:43 PM

**Pediatric Retinal Surgery Panel II**

Moderators: Şengül Özdek, MD and Yoshihiro Yonekawa, MD

Panelists: Caroline R. Baumal, MD and Lejla Vajzovic, MD

Rapid Fire Presenters: Rebekah Gensure, MD, PhD; Jessica Lee, MD; Jinghua Liu, PhD

2:43 – 2:58 PM

**Discussion of the Formation of a Pediatric Retina Society**

2:43 – 2:46

Pediatric Retina Society Concept Introduction

Cynthia A. Toth, MD

2:46 – 2:58

**Panel Discussion of the Formation of a Pediatric Retina Society**

Cynthia A. Toth, MD; Mary Elizabeth Hartnett, MD; Lejla Vajzovic, MD

2:58 – 3:00 PM

Closing Remarks

Cynthia A. Toth, MD

**Sunday, September 19, 2021 | 9:00 AM – 3:15 PM ET**

9:00 – 9:05 AM

Introduction

Cynthia A. Toth, MD

9:05 – 9:38 AM

**Session 11: Imaging, Diagnosis, and Surgery**

Moderator: Shunji Kusaka, MD

9:05 – 9:11 AM

OCT in FEVR

Atchara Amphornphruet, MD

9:11 – 9:17 AM

Oral Fluorescein Angiography with Ultra-wide-field Imaging System for Pediatric Retinal Disorders

Shunji Kusaka, MD

9:17 – 9:19 AM

Rapid Fire:

β-Catenin Vitreoretinopathy: Imaging Characteristics and Surgical Management

Samir Patel, MD

9:19 – 9:22 AM

Rapid Fire:

Peripheral Optical Coherence Tomography Assisted by Scleral Depression in Retinopathy of Prematurity

Brittini Scruggs, MD, PhD

9:22 – 9:38 AM

**Imaging, Diagnosis and Surgery Panel**

Moderators: Shunji Kusaka, MD and Adrienne W. Scott, MD

Panelist: Atchara Amphornphruet, MD

Rapid Fire Presenters: Samir Patel, MD and Brittini Scruggs, MD, PhD

9:38 – 10:15 AM

**Session 12: Imaging of Disease Diagnosis and Staging**

Moderator: R.V. Paul Chan, MD, MSc, MBA

9:38 – 9:44 AM

OCTA in Pediatric Retina

Audina M. Berrocal, MD

9:44 – 9:50 AM

Perifoveal Vascular Development with OCTA

Xi Chen, MD, PhD

9:50 – 9:53 AM

Rapid Fire:

Difference in Infant Stress during OCT Imaging versus Ophthalmoscopic Exam in ROP

Shwetha Mangalesh, MBBS

- 9:53 – 9:56 AM Rapid Fire:  
Update on Macular OCT in ROP  
*Nita Valikodath, MD*
- 9:56 – 9:59 AM Rapid Fire:  
Retina Vascular Abnormalities in Retinopathy of Prematurity (ROP): A Long-Term Follow-Up of School-Age Children  
*Xiao Chun Ling, MD*
- 9:59 – 10:15 AM** **Imaging and Disease Diagnosis Panel**  
*Moderators: Audina M. Berrocal, MD and R.V. Paul Chan, MD, MSc, MBA*  
*Panelists: Xi Chen, MD, PhD and Domenico Lepore, MD*  
*Rapid Fire Presenters: Xiao Chun Ling, MD; Shwetha Mangalesh, MBBS; Nita Valikodath, MD*
- 10:15 – 11:03 AM** **Session 13: Special Inflammatory and Other Surgical Challenges**  
*Moderator: María Ana Martínez-Castellanos, MD*
- 10:15 – 10:21 AM Scleral Buckling in Pediatric Patients with Pars Planitis  
*Lisa J. Faia, MD*
- 10:21 – 10:27 AM Pediatric Endophthalmitis  
*Hai Lu, MD*
- 10:27 – 10:33 AM Ophthalmic Manifestations Associated with SARS-CoV-2 in Newborn Infants  
*María Ana Martínez-Castellanos, MD*
- 10:33 – 10:35 AM Rapid Fire:  
Panuveitis in Rosai-Dorfman Disease  
*Julia Shulman, MD*
- 10:35 – 10:37 AM Rapid Fire:  
Von Hippel Lindau: A Disease to let your Guard Down?  
*Maria Margarita Parra, MD*
- 10:37 – 11:03 AM** **Special Inflammatory and Other Surgical Challenges Panel**  
*Moderators: Dilraj Grewal, MD and María Ana Martínez-Castellanos, MD*  
*Panelists: Lisa J. Faia, MD and Hai Lu, MD*  
*Rapid Fire Presenters: Maria Margarita Parra, MD and Julia Shulman, MD*
- 11:03 – 11:41 AM** **Session 14: Pediatric Retinal Surgery III**  
*Moderator: Wei-Chi Wu, MD, PhD*
- 11:03 – 11:09 AM Ocular Imaging of Stickler Syndrome  
*Hiroyuki Kondo, MD, PhD*
- 11:09 – 11:15 AM Failures of Prophylaxis for Stickler Syndrome  
*Michael J. Shapiro, MD*
- 11:15 – 11:21 AM Extended Vitreous Base Laser in Stickler Syndrome  
*Michael P. Blair, MD*
- 11:21 – 11:23 AM Rapid Fire:  
Basics of Pediatric Pars Plana Vitrectomy  
*Hatim Batawi, MD*

- 11:23 – 11:41 AM**      **Pediatric Retinal Surgery Panel III**  
*Moderators: Wei-Chi Wu, MD, PhD and Hiroyuki Kondo, MD, PhD*  
*Panelists: Michael P. Blair, MD and Michael J. Shapiro, MD*  
*Rapid Fire Presenter: Hatim Batawi, MD*
- 11:41 – 12:13 PM**      **Session 15: Pediatric Retinal Surgery IV**  
*Moderator: Eric Nudleman, MD, PhD*
- 11:41 – 11:47 PM      NAT and Complications  
*C. Armitage Harper III, MD*
- 11:47 – 11:53 AM      Different Surgical Solutions to Different Problems in CXL  
*Şengül Özdek, MD*
- 11:53 – 11:55 AM      **Rapid Fire:**  
 Bullous TRD in an Infant with CAPN5  
*Jordan Deaner, MD*
- 11:55 – 11:57 AM      **Rapid Fire:**  
 Short-term Perfluorocarbon (PFO) Tamponade for Management of Combined Tractional and Rhegmatogenous Retinal Detachment (TRD/RRD) in Persistent Fetal Vasculature Syndrome (PFVS)  
*Edward Wood, MD*
- 11:57 AM – 12:13 PM**      **Pediatric Retinal Surgery Panel IV**  
*Moderators: C. Armitage Harper III, MD and Eric Nudleman, MD, PhD*  
*Panelists: Kimberly A. Drenser, MD, PhD and Şengül Özdek, MD*  
*Rapid Fire Presenters: Jordan Deaner, MD and Edward Wood, MD*
- 12:13 – 12:28 PM**      **Session 16: How Doctors' Needs Become Reality: The Path and the Challenges**  
*Moderator: Lejla Vajzovic, MD*
- 12:13 – 12:28 PM**      **Doctors and Industry Interactive Panel**  
*Panelists: Paul Hallen (Alcon Vision, LLC) and Arnaud Tellier (DORC/Dutch Ophthalmic USA)*
- 12:28 – 1:00 PM**      **Session 17: Pediatric Retinal Surgery V**  
*Moderator: George Caputo, MD*
- 12:28 – 12:34 PM      Endoscopic Advances in Retinal Surgery  
*Thomas C. Lee, MD*
- 12:34 – 12:40 PM      UK National ROP Stage 4 Endoscopic Surgical Experience: The First 100+ Eyes  
*Chien Wong, MD*
- 12:40 – 12:42 PM      **Rapid Fire:**  
 Exudative ROP  
*Prethy Rao, MD, MPH*
- 12:42 – 12:44 PM      **Rapid Fire:**  
 When is Less, When is More in ROP Surgery?  
*Supalert Prakhunhungsit, MD*
- 12:44 – 1:00 PM**      **Pediatric Retinal Surgery V Panel**  
*Moderators: George Caputo, MD and Thomas C. Lee, MD*  
*Panelists: Antonio Capone Jr., MD and Chien Wong, MD*  
*Rapid Fire Presenters: Supalert Prakhunhungsit, MD and Prethy Rao, MD, MPH*

1:00 – 1:45 PM

**Session 18: Retinopathy of Prematurity Outcomes**

*Moderator: Irena Tsui, MD*

1:00 – 1:06 PM

Real World Visual Outcomes After ROP Treatment

*Irena Tsui, MD*

1:06 – 1:12 PM

Cognitive Outcomes Following Intravitreal Bevacizumab for Retinopathy of Prematurity: 4- to 6-Year Outcomes in a Prospective Cohort

*Wei-Chi Wu, MD, PhD*

1:12 – 1:18 PM

Adult Retinopathy of Prematurity

*Emmanuel Chang, MD, PhD*

1:18 – 1:21 PM

Rapid Fire:

Prevalence of Persistent Avascular Retina in Patients with Prior Retinopathy of Prematurity Screening Without Treatment

*Adam Hanif, MD*

1:21 – 1:24 PM

Rapid Fire:

Stereopsis in Preschoolers and School-aged Children in Full-term, Prematurity, and Retinopathy of Prematurity

*Eugene Yu-Chuan Kang, MD*

1:24 – 1:45 PM

**Retinopathy of Prematurity Outcomes Panel**

*Moderators: Emmanuel Chang, MD, PhD and Irena Tsui, MD*

*Panelists: Anand Vinekar, MD, FRSC, PhD and Wei-Chi Wu, MD*

*Rapid Fire Presenters: Adam Hanif, MD and Eugene Yu-Chuan Kang, MD*

1:45 – 2:19 PM

**Session 19: Telemedicine**

*Moderator: J. Peter Campbell, MD*

1:45 – 1:51 PM

OCT Imaging for ROP Telemedicine: Lessons from BabySTEPS

*Cynthia A. Toth, MD*

1:51 – 1:57 PM

Telemedicine and Integrating Prediction in the Outreach

*Anand Vinekar, MD, FRCS, PhD*

1:57 – 2:00 PM

Rapid Fire:

Geographic Access Disparities to Retinopathy of Prematurity Treatment Centers in the United States

*Rebecca Soares, MD, MPH*

2:00 – 2:03 PM

Rapid Fire:

Multivariate Models to Predict Early Referral-Warranted Retinopathy of Prematurity Using Handheld Optical Coherence Tomography

*Alex Legocki, MD*

2:03 – 2:19 PM

**Telemedicine Panel**

*Moderators: J. Peter Campbell, MD and Anand Vinekar, MD, FRCS, PhD*

*Panelists: R.V. Paul Chan, MD, MSc, MBA and Cynthia A. Toth, MD*

*Rapid Fire Presenters: Alex Legocki, MD and Rebecca Soares, MD, MPH*

2:19 – 2:52 PM

**Session 20: Artificial Intelligence**

*Moderator: Michael F. Chiang, MD*

2:19 – 2:25 PM

AI for ROP Screening

*J. Peter Campbell, MD*



2:25 – 2:31 PM

Implementation of AI in LMICs  
*R.V. Paul Chan, MD, MSc, MBA*

2:31 – 2:37 PM

Fluorescein Angiography-based Convolutional Neural Network for ROP Treatment  
*Domenico Lepore, MD*

**2:37 – 2:52 PM**

**Artificial Intelligence Panel**

*Moderators: Michael F. Chiang, MD and Domenico Lepore, MD*

*Panelists: R.V. Paul Chan, MD, MSc, MBA and J. Peter Campbell, MD*

2:52 – 3:15 PM

Closing Remarks and Best Video Award  
*Cynthia A. Toth, MD; Mary Elizabeth Hartnett, MD; Lejla Vajzovic, MD*