



The 27th Annual

## Children's Neuroscience Symposium

April 11 - 12, 2025

Phoenix Children's Conference Center 2632 North 20th Street Phoenix, Arizona 85006

## Program Syllabus

PROGRAM DIRECTOR Kara S. Lewis, MD

PLANNING COMMITTEE Ruth E. Bristol, MD Dannah Raz, MD, MPH PROGRAM COORDINATOR
Christina Casanova



## 27<sup>th</sup> Annual Children's Neuroscience Symposium





April 11 – 12, 2025 Phoenix I Arizona

The 27th Annual Children's Neuroscience Symposium will feature esteemed experts in the field, offering invaluable insights into the assessment and management of complex neurological conditions based on the latest evidence-based medicine. Stay informed and up-to-date with cutting-edge knowledge.

#### **GREETINGS**

Dear Conference Attendee,

Welcome to Phoenix, Arizona, for the 27th Annual Children's Neuroscience Symposium. We're excited to have you join us as we explore the complexities of pediatric neurological, behavioral, and mental disorders.

We want to extend our thanks to the faculty for sharing their expertise, the moderators, planning committee, volunteers, and exhibitors for their support, and of course, to you, our attendees, for making this conference possible.

Enclosed, you'll find the course schedule, faculty information, and details on obtaining continuing education credit. We hope you find inspiration here to enhance the care you provide to children and adolescents with complex neurological conditions.

As we strive to improve future events, we'd love to hear your feedback! Please take a moment to complete a quick 1-minute survey on the topics you found most helpful and any ideas you have for next year's conference. You can find the survey QR code on the back of your program.

Thank you for attending the 27th Annual Children's Neuroscience Symposium. We look forward to seeing you again next year.

Sincerely,

Kara S. Lewis, MD

Lectures and case studies will provide crucial updates, blending recent research with proven care strategies for effective clinical decision-making and patient care. This symposium aims to facilitate valuable discussions and connections to improve outcomes for complex pediatric neuro patients. Our goal is to equip primary care clinicians with enhanced skills for accurate assessment and management, fostering seamless collaboration with specialists and elevating overall patient care.

#### **COURSE OUTCOME OBJECTIVES**

Upon conclusion of this program, participants should be able to:

- 1. Employ new abilities and strategies to diagnose, manage and treat complex neurological patients using the most relevant, up-to-date clinical information.
- 2. Integrate up-to-date information and research to determine the best course of action for treatment of neurological conditions.
- 3. Improve patient care outcomes for children with complex neurological conditions.
- 4. Counsel patients and families on short-term and long-term prognoses and treatment options for a variety of neurological conditions in the pediatric population.



#### 27<sup>th</sup> Annual

#### Children's Neuroscience Symposium





#### Friday, April 11, 2025

11:30 AM Registration and Lunch (12:30 PM Webinar Opens)

12:55 PM Opening Remarks

1:00 PM From Birth to Fully Grown: A Neurosurgeon's Guide on When to Be Concerned About a Child's Back, Legs and Buttocks

· Identify red flags and determine when further evaluation is needed concerning a child's back, legs, and buttocks.



Jennifer Ronecker, MD

Pediatric Neurosurgeon

Barrow Neurological Institute at Phoenix Children's

#### 1:40 PM Early Detection of Cerebral Palsy

- Distinguish why early detection and diagnosis of cerebral palsy is preferred over taking a "wait and see approach".
- Describe how the diagnosis of cerebral palsy can be made accurately, with high specificity and sensitivity, using a combination of various available diagnostic tools.
- Examine the role of different diagnostic tools that can aid in the early diagnosis of cerebral palsy.



#### Jennifer Heim, MD

**Child Neurologist** 

Barrow Neurological Institute at Phoenix Children's

#### 2:20 PM Cerebral Palsy: A Fresh Perspective

• Discuss new insights into causes of Cerebral Palsy and developing treatments for cerebral palsy.



#### Michael Kruer, MD

Director, of Cerebral Palsy and Pediatric Neurodevelopmental Genetics Barrow Neurological Institute at Phoenix Children's

3:00 PM Break

#### 3:20 PM Headache/ Migraine Best Practices in Treatment, Latest in Procedures and When to Refer

- Identify scenarios in which sending a patient to the emergency department or referring to neurology would be prudent.
- Identify the role of procedures and neuromodulation in ED, inpatient, and outpatient settings.



#### Spencer Eberhard, DO

Child Neurologist & Pediatric Headache Medicine Fellow Barrow Neurological Institute at Phoenix Children's

#### 3:40 PM Pediatric Pain Management at Phoenix Children's

- Identify the breadth of pain management modalities utilized at Phoenix Children's.
- Identify practices unique to pediatric pain care.



#### Ahmar Husain, MD

Anesthesia Section Vice Chief, Medical Director, Safety and Quality, Division of Anesthesiology Phoenix Children's

#### 4:00 PM Autism and Alternative Therapies

- Identify the essential elements of a good clinical trial in evaluating the effectiveness of treatments for autism
- · Gain understanding of common complementary and alternative treatments for children with autism
- Assess whether alternative treatments may be appropriate for patients



#### Dannah Raz, MD, MPH

Division Chief, Developmental Pediatrics Barrow Neurological Institute at Phoenix Children's

#### 4:40 PM Primary Care Office Treatment of Behavior Problems in Patients with Autism

- Assess quickly various common behavior problems seen in children with autism (insomnia, anxiety, irritability/aggression, and inattention/hyperactivity).
- Provide appropriate pharmacological treatment for these common behavior problems in children with autism.



Todd Levine, MD Psychiatrist Phoenix Children's

5:20 PM Adjourn

5:20 PM Reception -- Wine and hors d'oeuvres will be served



## 27<sup>th</sup> Annual Children's Neuroscience Symposium





#### Saturday, April 12, 2025

7:00 AM Registration and Breakfast (7:30 AM Webinar Opens)

7:55 AM Opening Remarks

#### 8:00 AM Current Approaches to Autism-Related Psychotherapeutic Interventions

- Discuss the historical and current rationale for interventions related to autism.
- Identify interventions commonly recommended for autistic children (with & without co-occurring conditions).
- Apply the skills needed for providing individualized recommendations.



Randi Phelps, PhD Pediatric Psychologist Phoenix Children's

#### 8:40 AM Fetal Brain MRI: Conventional and Advanced Techniques

- Describe the role of conventional fetal brain MRI, including its indications, safety guidelines, imaging protocols, and normal anatomical findings, to enhance diagnostic accuracy in prenatal neuroimaging.
- Explore advanced fetal brain MRI techniques, such as super-resolution imaging, diffusion tensor imaging (DTI), and resting-state fMRI, to assess brain development and improve the detection of subtle neurological abnormalities.



Patricia Cornejo, MD Neuroradiologist Phoenix Children's

#### 9:20 AM Neurocritical Care – Updates for the PCP

- Discuss emerging monitoring and treatment strategies being used in pediatric neurocritical care.
- Discuss challenges of neurologic prognostication for children with severe neurologic injuries.
- Discuss important concepts regarding outpatient follow-up of children with severe neurologic injuries.



Brian Appavu, MD, RPNI

Child Neurologist, Director, Pediatric Neurocritical Care Fellowship
Barrow Neurological Institute at Phoenix Children's

10:00 AM Break

#### 10:20 AM Newest Updates on Epilepsy and the Implication on Patient Care

Identify what services an epilepsy center provides and treatment possibilities that may be offered.



Rebecca Silverstein, DO
Clinical Neurophysiology Fellow
Barrow Neurological Institute at Phoenix Children's

#### 11:00 AM Multi-disciplinary Surgical Management of Epilepsy for the PCP

- Identify patients who will benefit from epilepsy surgery.
- Understand rationale for early surgical intervention.



Jason Hauptman, MD, PhD
Chief, Neurosurgery
Caroline Hoeye Endowed Chair in Neurosurgery
Barrow Neurological Institute at Phoenix Children's

#### 11:40 AM Common Ketosis Queries: Answers to Burning Questions About this Fat-Fueled State

- Identify potential sources of carbohydrates in foods, medications, and supplements.
- Recognize adverse effects of ketogenic therapy and how to mitigate long-term risks.



Christi Sports, MS, RDN, CSP
Ketogenic Dietitian
Barrow Neurological Institute at Phoenix Children's



#### 11:55 AM Adjourn

To receive CME credit for your participation, you must complete your evaluation in the CloudCME portal by May 10, 2025. Instructions for claiming CME credit are listed under the Evaluation and Certificate section of the Syllabus.

**THANK YOU!** We are sincerely grateful for your participation and dedication to learning. Your commitment to advancing knowledge helps improve outcomes for the patients and families we serve.







#### Saturday, April 12

#### Lunch-N-Learn: A Family Centered Approach: How Providers Can Best **Support Patients and Their Families**

Moderator: Kara S. Lewis, MD, FAAN, FAHS, FCNS Nannette Salasek, LBSW, BHP Michele Thorne, MS, CAS 12:15 - 1:15 PM

This presentation highlights the importance of a family-centered approach in caring for children and adolescents with neurological conditions. It will focus on the partnership between healthcare providers and families, demonstrating how collaboration enhances patient outcomes. Attendees will gain practical strategies and communication tools to strengthen family-provider relationships and ensure treatment plans address both patient and family needs.

#### At the end of this session, learners will be able to:

- Explain the role of a family-centered approach in pediatric neurological care, emphasizing provider and family collaboration.
- Apply effective strategies and communication tools to tailor treatment plans that support both patients and



Kara S. Lewis, MD, FAAN, FAHS, FCNS

Child Neurologist; Director of Fetal Neurology; Director, Neuroscience Education Committee

#### Barrow Neurological Institute at Phoenix Children's

Dr. Kara Stuart Lewis is a board-certified child neurologist specializing in headache medicine and fetal neurology. She served as Program Director for the Child Neurology Residency at Barrow Neurological Institute at Phoenix Children's (2005–2022) and is now the Medical Director of Fetal Neurology and Director of Education for Barrow Neurosciences. She holds teaching appointments at multiple medical schools and serves on the Make-A-Wish America Medical Advisory Committee. Her clinical interests include headaches, fetal neurology, and lifelong care for children with cerebral palsy. Dedicated to education and mentorship, Dr. Lewis lives in Phoenix with her husband, Gordon, and has three children.



Nannette Salasek, LBSW, BHP

**Healthcare Systems Administrator** Raising Special Kids

Nannette Salasek is a licensed Social Worker and the Healthcare Systems Administrator at Raising Special Kids, where she draws upon her extensive experience in navigating state and federal programs designed to support families with children who have special healthcare needs.

Nannette also serves on the Family Faculty and Executive Patient Experience committees at Phoenix Children's advocating for families and representing the parent's perspective.

Nannette draws on her own personal experience, as a mother of six children and a daughter who was diagnosed in utero with Spina Bifida, to inform her work and passion for advocacy.



Michele Thorne MS, CAS

Co-Founder/Chief Executive Officer

**Care 4 The Caregivers** 

Michele Thorne is the co-founder and executive director of Care 4 the Caregivers and the mother of two children with autism. As CEO, she develops programs, events, and support groups to empower caregivers. Previously, she worked as a geneticist at TGen and taught as an adjunct professor. She holds a B.S. in Molecular Biosciences and Biotechnology and an M.S. from ASU. A Certified Autism Specialist (CAS), she also founded the Care for the Giver Conference and serves on several advisory councils. Michele is trained in multiple caregiver support programs and is committed to strengthening resources for families of children with disabilities.





Raising

#### **About Care 4 The Caregivers**

Care 4 the Caregivers, recognized that a child's well-being is deeply connected to their caregiver's mental health. Studies show that caregivers often experience



PTSD-like symptoms, along with clinical levels of stress, anxiety, and depression—factors that directly impact childhood outcomes. Our recently completed evidence-based study, *Thriving Together*, demonstrated the effectiveness of improving caregiver quality of life, strengthening parent-child relationships, and increasing the independence of disabled children. If physicians want their patients to recover well and get the support they need, they must go home to caregivers who have the support they need. By providing wraparound support, Care 4 The Caregivers ensures caregivers have the resources they need, both at home and in the hospital, to create a stable, healing environment for their children.

Since we began, Care 4 the Caregivers has always been grounded in real life experience, vulnerability, consistency and empathy for caregivers of children with disabilities who themselves face tremendous physical and emotional challenges. Our mission is simple: provide quality emotional, physical and educational support to caregivers who have to keep themselves healthy and whole so that they can provide their children with the care they need. We achieve that mission by keeping these core values at the center of everything we offer:

- Every parent's journey has value
- We believe in empowerment through education
- We know that resiliency is built through self-care
- We are a community where everyone belongs

Care 4 the Caregivers is committed to creating a space where caregivers are seen and supported. The organization strives to reduce caregiver burnout and build resilience by providing mental health support, resources, education, and connections to the community. Additionally, we further our mission by educating professionals serving our community,

#### **About Raising Special Kids**

Our staff of Family Support Specialists are parents and family members of children with disabilities and can relate to the challenges facing parents and family members who call for support. Our staff Kids receives on-going training on Federal and State programs, as well as community-based programs and resources, available to individuals with disabilities and special health care needs. We provide families with support for the full spectrum of issues a family may encounter from birth through age 26, and sometimes beyond. RSK staff specializes in information and training in the areas of Education, Health Care, Behavior Support, and Transition to Adulthood.

#### Families who contact us or are referred for individual consultation will receive:

- A call from one of our Family Support Specialists by the end of the following business day.
- Compassion and understanding from our staff of professional, experienced, fellow parents or family members of a child with a disability.
- Information, resources, problem-solving support, and strategies to help parents access and advocate for the support their child needs.

RSK provides medical professionals the opportunity to learn how Raising Special kids provides support to families. They experience a family's perspective and learn the unique needs and challenges faced by families of children with disabilities.

#### Topics covered:

- Relaying diagnosis to a family
- Family-centered care in action
- Parents as partners in medical-decision making
- Referring Families to Raising Special Kids
- Visit with a family raising a child with special needs trained in parent-to-parent support
- Listen as a family shares their story
- Interact with family members and child with a disability
- Experience strength of family
- Get a bigger picture of the impact of the diagnosis outside the clinic setting
- Community resources





#### ACCREDITATION/ COURSE CREDIT DESIGNATION STATEMENT

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of The University of Arizona College of Medicine - Tucson and Phoenix Children's. The University of Arizona College of Medicine - Tucson is accredited by the ACCME to provide continuing medical education for physicians.

The University of Arizona College of Medicine – Tucson designates this live activity for a maximum of **8.5 AMA PRA**Category 1 Credit(s)<sup>TM</sup>. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

#### RELEVANT FINANCIAL RELATIONSHIPS STATEMENT

University of Arizona College of Medicine - Tucson Office of Continuing Medical Education adheres to the ACCME's Standards for Integrity and Independence in Accredited Continuing Education. Any individuals in a position to control the content of a CME activity, including faculty, planners, reviewers or others are required to disclose all financial relationships with ineligible companies (commercial interests). The CME office reviewers have nothing to disclose. All relevant financial relationships have been mitigated prior to the commencement of the activity.

Dr. Appavu has disclosed Grant or research support-Ceribell. Dr. Hauptman has disclosed Consulting Fee-Medtronic | Consulting Fee-GE Healthcare | Consulting Fee-Iota. Dr. Kruer has disclosed Grant or research support-Medtronic. Dr. Raz has disclosed Faculty Advisor-Shionogi (Relationship has ended) | Honoraria-Illumina Genetics (Relationship has ended). Dr. Ronecker Consulting Fee-Medtronic. All other individuals in a position to control the content of this CME activity have disclosed that they have no relevant financial relationships with ineligible companies that would constitute a conflict of interest concerning this CME activity.

#### **EVALUATION AND CERTIFICATE**

<u>All participants</u> have been pre-registered with **CloudCME**. Your registration email address will serve as your username. Upon your first sign-in, you'll be prompted to reset your password and then guided to complete your account profile. **PLEASE DO NOT CREATE A NEW ACCOUNT!** 

**NOTE:** Your attendance will be automatically recorded 15 minutes before adjournment. At that time, you can begin completing the evaluation and receive your CME credit.

#### **CloudCME**

#### Logging into CloudCME (First-Time Users):

- 1. Go to <a href="https://uarizona.cloud-cme.com">https://uarizona.cloud-cme.com</a>
- 2. Click the "Sign In" link in the upper-left menu.
- 3. Enter the email address you used for event registration.
- 4. Click "Forgot password" (middle of the page).
- 5. Check your email for a password reset link and follow the instructions.
  - After resetting, the system will automatically direct you to your profile page.
  - Complete your profile information and click "Submit" at the bottom of the page.
  - To access your certificate, click the "My CME" tab, then go to "Evaluations and Certificates" to complete your evaluation after the session.





**CloudCME® Mobil App** is available for Android and Apple devices. (Organization code: uarizona)

**Questions** regarding the program contact <u>barrow@phoenixchildrens.com</u>; regarding CloudCME, contact the UA CME Office (520) 626-7832 or <u>uofacme@arizona.edu</u>.

#### Your Feedback Helps Us Give You Our Best!

Complete a quick **1-minute survey** using the QR code on the topics you found most helpful and any ideas or topics you have for next year's conference.



#### **Thank You**



We would like to gratefully acknowledge the following organizations for their support of the 27<sup>th</sup> Annual Children's Neuroscience Symposium.

## Silver Level

# Amneal Pharmaceuticals GeneDX Integra Life Sciences

### Bronze Level

Eysz, Inc.

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## **Special Thanks**

Raising Special Kids

Care 4 the Caregivers