2024 CHILD NEUROLOGY SOCIETY 53rd ANNUAL MEETING

Nov. 11-14, 2024 • San Diego, CA

SCIENTIFIC PROGRAM BROCHURE

Learning Objectives

The 2024 CNS Scientific Program

The CNS Scientific Program is designed for all people interested in childhood-onset neurological and neurodevelopmental conditions, including those interested in clinical care, research advances, and leadership opportunities in this field.

Accreditation 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 Minnesota Medical Association (MMA) and before is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

The Minnesota Medical Association designates this live activity for a maximum of 26.5 *AMA PRA Category 1 Credit(s)™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Monday, November 11 (Schedule subject to change)

7:30 AM - 5:00 PM

The 9th Annual John M. "Jack" Pellock Resident Seminar on Epilepsy

Note: Pre-registration is required.

8:00 AM - 11:00 AM

Symposium I: Challenges of Caring for Children with Medical Complexity

Supported by the Child Neurology Foundation

DESCRIPTION

The current healthcare system is organized for adults and acute care. Children living with medical complexity do not "fit" into the system; hence, the inherent stress on families and clinicians. Families and children fall through the cracks because of a lack of care coordination and support from the medical system, and physicians are left feeling burnt out and struggling to provide the highest quality of care. This symposium aims to define the challenges of caring for children with medical complexity, provide opportunities to connect and talk openly about these challenges, and discuss innovative solutions. Insights will be presented from the perspectives of patients, caregivers, and medical providers.

ORGANIZER

M. Scott Perry, MD
Cook Children's

Welcome
M. Scott Perry, MD
Cook Children's

Patient and Caregiver Perspective: What You Want Your Providers to Know
Christina Vargas, parent
Pre-recorded video

Activity
M. Scott Perry, MD
Cook Children's

Clinical Methods of Providing Complex Care
John R. Mytinger, MD
Nationwide Children's Hospital

Using Technology to Make Caring Easier
Anne Marie Morse, DO, FAASM
Geisinger Health System

Innovative Programs: Finding Limited Resources
Jessica Nickrand, PhD
Child Neurology Foundation

Monika Jones, JD, CNP
Pediatric Epilepsy Surgery Alliance

Preparing for Transition of Care
Ahmed T. Abdelmoity, MD, FAAP, FAES
Children's Mercy, Kansas City

Jean-Baptiste Le Pichon, MD, PhD, FAAP
Children's Mercy, Kansas City

Case Study Scenarios
M. Scott Perry, MD
Cook Children's

Closing Remarks
M. Scott Perry, MD
Cook Children's

LEARNING OBJECTIVES

As a result of this educational session, participants will:

- Better understand the challenges faced by patients with medical complexities in a variety of scenarios.
- Be empowered to incorporate innovative solutions to caring for children with medical complexity into their practice.

IMPACT STATEMENT

This educational session helped me to identify changes I could make in my practice related to:

- The use of technology for caring for children with medical complexity.
- Transitioning the care of children with medical complexity.

SESSIONS highlighted in maroon are designated for CME credit.
Agenda and amount of CME credits available are subject to change.

Monday, November 11 CONTINUED

11:30 AM – 1:30 PM

Kenneth F. Swaiman CNS Legacy Luncheon

Awards Presented

Arnold P. Gold Foundation Humanism in Medicine Award
Dave F. Clarke, MBBS, ABPN, ABCN, FAES
Dell Medical School, University of Texas at Austin

Bernard D'Souza International Fellowship Awards
TBA

CNS Training Program Director Award
TBA

Roger and Mary Brumback Lifetime Achievement Award
Roy D. Elterman, MD
Founder/Treasurer, Pediatric Epilepsy Research Foundation (PERF)

Donna Ferriero, MD, MS
Distinguished Professor
Departments of Neurology and Pediatrics
UCSF Weill Institute for Neurosciences

Bhuwan Garg High School Neuroscience Award
Allison Duh

Tauen Chang Outstanding Junior Member Awards
TBA

Tauen Chang Outstanding Junior Member Post Graduate Awards
TBA

M. Richard Koenigsburger Memorial Scholarship
TBA

AAP Section of Neurology Travel Award/Grant
TBA

1:45 PM - 5:45 PM

Child Neurology/NDD Educator Symposium
(formerly PECN)

Part 1: Child Neurology/NDD Educator Updates

Introduction and Agenda
Nancy Bass, MD
Children's Wisconsin
Medical College of Wisconsin

Introduction to the Child Neurology Educators Committee (CNEC)
Committee Membership/Working Groups

Match Report/Preference Signaling and the Match Update
Margie Ream, MD, PhD, FAAN
Nationwide Children's Hospital
Ohio State University College of Medicine

Program Directors Forum
Danny Rogers, MD, PhD
University of New Mexico

Rachel Gotlieb-Smith, MD, MHPE
University of Michigan

Neurodevelopmental Disabilities Update
Miya Asato, MD
Johns Hopkins University
Kennedy Krieger Institute

Genomics Curriculum
Kuntal Sen, MD, FACMG
Children's National Hospital
GWU School of Medicine and Health Sciences

Report from Neurology RRC
Howard Goodkin, MD, PhD
University of Virginia

CNCDP-K12 Report
Brad Schlaggar, MD, PhD
Johns Hopkins University
President and CEO Kennedy Krieger Institute

Minority Research Scholars Program
Erika Augustine, MD, MS
Johns Hopkins University
Kennedy Krieger Institute

Updates AAP Section of Pediatric Neurology
Tim Lotze, MD
Baylor College of Medicine

Updates AAN Section of Child Neurology
Donald Gilbert, MD, MS, FAAN, FAAP
Cincinnati Children's Hospital
University of Cincinnati

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Part 2: Hot Topics in Child Neurology/NDD MedEd

DESCRIPTION

Join us for an engaging session surrounding hot topics in the growing world of child neurology education.

- Discover how competency-based education is revolutionizing the way we approach child neurology training and gain valuable insights into fostering competence and excellence among the child neurologists of the future.
- Explore the thought-provoking discussion on residency unionization, shedding light on its implications for both trainees and educators alike.
- Gain a deeper understanding of the challenges and opportunities presented by this evolving aspect of medical training.

The session will culminate in lively discussions and networking opportunities at our multiple speed-networking tables, where attendees will have the chance to connect with experts in residency education. Take advantage of this unique platform to pose questions, exchange ideas, and forge meaningful connections with fellow attendees and leaders in academic education. Tables will be topic-centered to include unique considerations for the small training program, tips for starting a neurodevelopmental disabilities program, residency director pearls, and wellness initiatives.

Whether you're a seasoned professional or just starting your journey into academic education, our session offers something for everyone. Do not miss this invaluable opportunity to expand knowledge, exchange perspectives, and connect with peers at the forefront of child neurology education. Join us and be part of the conversation shaping the future of our field.

LEARNING OBJECTIVES

As a result of this educational session, participants will be able to:

- Define competency-based medical education (CBME) and understand the current status of implementation of CBME in child neurology
- Analyze the potential benefits and challenges associated with residency unionization from the perspective of the resident, faculty, institution, and healthcare system.
- Describe solutions to educational leadership challenges that have been successfully implemented at a variety of institutions.

IMPACT STATEMENT

This educational session helped me to identify changes I could make in my practice related to:

- Identify changes I could make in my current training programs related to implementation of competency-based medical education.
- Gain an understanding of the advantages, disadvantages, and healthcare-system-level impact of resident unionization.
- Identify potential solutions to common education leadership challenges, such as supporting resident wellness and completing annual ACGME requirements, that have been successfully implemented at other programs and consider how these could be adapted to benefit my own program.

ORGANIZERS

Nancy Bass, MD
Medical College of Wisconsin

Margie Ream, MD, PhD, FAAN
Nationwide Children's Hospital
Ohio State University College of Medicine

ACGME Competency Based Education
Kathryn Xixis, MD
University of Virginia

Residency Unionization
Rachel Gottlieb-Smith, MD, MHPE
University of Michigan

Medley of MedEd Hot Topics: Speed Networking

Table 1: Trials and Tribulations of the Small Training Program
Adam Wallace, MD
University of Wisconsin

Nancy Bass, MD
Medical College of Wisconsin

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Table 2: Starting a Neurodevelopmental Disability Program
Miya Asato, MD
John Hopkins University
Kennedy Krieger Institute

Anuja Jindal, MD, MPH
Rady Children's Hospital
University of California San Diego

Table 3: Residency Director Pearls
Meeryo Choe, MD, FAAN
UCLA Division of Pediatric Neurology

Margie Ream, MD, PhD, FAAN
Nationwide Children's Hospital
Ohio State University College of Medicine

Table 4: Wellness and Team Building Initiatives
Aimee Sato, MD
Seattle Children's/UW Medicine

Robert Thompson Stone, MD, FAAN
University of Rochester Medical Center

2:00 PM - 7:30 PM

Exhibits and Poster Review

3:00 PM - 4:00 PM

Workshop #1: FDA 101: The Lifecycle of Drug Development in Pediatric Neurology

DESCRIPTION

Pediatric neurology is in a new era of novel therapeutic discovery. The number of investigational new drugs (INDs) being evaluated is growing rapidly, with >1000 actively enrolling interventional studies for children with neurologic disorders, per clinicaltrials.gov. It is critical for the pediatric neurology community to understand how drugs are developed, evaluated, and approved so they can be informed participants and drivers of high-impact clinical trials to improve care for these patients. This workshop will include dynamic case-based discussions of recent approvals in pediatric neurology as a framework to elucidate the lifecycle of drug development from the perspectives of physicians at FDA who review INDs and new drug applications, and from an academic pediatric neurologist designing clinical trials testing novel therapeutics. Participants will be able to ask questions about the role of FDA and process of drug development, with the overall aim to highlight the growing need for education and experience with evaluation of novel medical products to maximize potential for scientific progress and bring safe and effective therapies to children with neurologic disease.

LEARNING OBJECTIVES

As a result of this educational session, participants will be able to:

- Define the role of FDA in drug development.
- Describe clinical trial design and regulatory considerations for evaluating novel therapeutics

IMPACT STATEMENT

This educational session helped me to identify changes I could make in my practice related to:

- The evaluation of novel therapeutics for patients with neurologic disease.
- Participation in clinical trials for patients with neurologic disease.

ORGANIZER

Elizabeth Duke, MD
US Food and Drug Administration
Oncologic Diseases

DISCUSSION LEADERS

Emily R. Freilich, MD
US Food and Drug Administration
Center for Drug Evaluation and Research

Elizabeth Duke, MD
US Food and Drug Administration
Oncologic Diseases

Janet Soul, MDCM, FRCPC
Harvard Medical School
Boston Children's Hospital

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4:15 PM - 5:15 PM

Workshop #2: How YOU Can Find NIH Funding Opportunities (On Your Phone)!

DESCRIPTION

Have you ever wondered how to navigate tons of web pages to find the most appropriate NIH funding opportunities? Would you like an NIH staff person to walk you through the process of finding funding opportunities for your next grant application, particularly those relevant to your specific career and research interests and goals? Do you know that there are funding opportunities specifically designed to increase the diversity of the neuroscience workforce? Do you have an interest in health disparities and equity research in pediatric neurology? How about global pediatric neurology research?

Please join this skills session, where NIH staff will walk you through the process of finding funding opportunities. This information is useful at all career stages. The workshop will be run in small groups (at tables), where a team of NIH program Directors will show you, using your laptop or cell phone, how to make your searches more efficient and targeted to your career and research goals. You will walk away with useful web pages in your search history or bookmarks. Tables will be topic-specific, but there will be time for at least three rotations to different tables. Topics will include general NIH funding opportunities and helpful new grant-related websites, training grants and workforce diversity, research networks, and health disparities/global health.

LEARNING OBJECTIVES

As a result of this educational session, participants will be able to:

- Use the NINDS website to search for relevant funding opportunities and other critical information about submitting grants to NINDS (relevant to themselves, their mentors, and their trainees) with greater efficiency.
- Know where to access helpful information about aspects of grant submission, including timelines, review process, and funding decisions.
- Access information and guidance about recent NIH initiatives to promote diversity, equity, and inclusion in researchers and participants.

IMPACT STATEMENT

This educational session helped me to identify changes I could make in my practice related to:

- Using the NINDS website to search for funding opportunities (relevant to me, my mentors, and my trainees) with greater efficiency and relevance, increasing my ability to submit more NIH-targeted and focused grant applications.
- Understanding recent NIH initiatives to incorporate research methods and personnel that address diversity, equity, and inclusion gaps, particularly for groups identified as experiencing health disparities, thus increasing the inclusion of diverse backgrounds in the neuroscience workforce while supporting the next generation of investigators and enhancing my ability to propose research topics that reflect the national and global disease burdens.

ORGANIZER

Adam L. Hartman, MD
Division of Clinical Research, NINDS/NIH

DISCUSSION LEADERS

Adam L. Hartman, MD
Division of Clinical Research, NINDS/NIH

Kristi Hardy, PhD
Division of Clinical Research, NINDS/NIH

Nicole Farhat, CRNP
Division of Clinical Research, NINDS/NIH

Letitia Weigand, PhD
Office of Training and Workforce Development, NINDS/NIH

6:00 PM - 7:30 PM

Welcome Reception

8:00 PM – 10:00 PM

Movement Disorder Video Rounds

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Tuesday, November 12 (Schedule subject to change)

8:00 AM - 10:15 AM

Symposium II: Presidential Symposium: Childhood Neuromuscular Disorders: A New Landscape and a Vision for the Future

DESCRIPTION

This symposium will provide an advanced look at recent and future developments in the diagnosis and treatment of neuromuscular disorders in childhood, with a particular focus on inherited diseases of skeletal muscle. The field of neuromuscular disorders has been transformed in recent years by numerous new therapies and diagnostic technologies, and innovation continues at an exuberant pace. The target audience includes practicing child neurologists, trainees, allied health professionals, and scientists. The course will begin with a review of recently approved therapies, selected clinical trials, and cutting-edge diagnostic approaches. Next will come an overview of the Muscular Dystrophy Coordinating Committee's vision for future research. As the course delves deeper into therapeutic development, it will then demonstrate the arc of preclinical therapeutic development, clinical trial readiness, IND submission, and clinical trial conduct, using examples from specific neuromuscular disorders. Ethical issues will be discussed in research and clinical contexts, as well as the role of evidence-based approaches to medical decision-making. By the end of the session, attendees will know current practices in pediatric neuromuscular medicine, understand how novel therapies are developed, and see how novel therapies and novel clinical practices could develop in the future.

LEARNING OBJECTIVES

As a result of this educational session, participants will be able to:

- Be familiar with novel therapies for neuromuscular disorders that have been recently approved by the FDA.
- Learn about strategies to overcome challenges in preclinical development, regulatory filings, and clinical trials for pediatric neuromuscular disorders.

IMPACT STATEMENT

This educational session helped me to identify changes I could make in my practice related to:

- Prescribing novel neuromuscular therapies and counseling families regarding different stages of research participation.
- The use of evidence-based approaches to therapeutic selection and implementation.

ORGANIZER

Peter B. Kang, MD, FAAN, FAAP
University of Minnesota

Recently Approved Therapies and Those in Advanced-Stage Clinical Trials
Hugh J. McMillan, MD, MSc
Children's Hospital of Eastern Ontario

New Approaches to Neuromuscular Diagnosis
Peter B. Kang, MD, FAAN, FAAP
University of Minnesota

The Muscular Dystrophy Coordinating Committee's Action Plan for the Muscular Dystrophies
Glen Nuckolls, PhD
National Institute of Neurological Disorders and Stroke

The Convergence of Preclinical and Clinical Trial Readiness Studies in Collagen VI-related Muscular Dystrophy
A. Reghan Foley, MD
National Institute of Neurological Disorders and Stroke

Preclinical Therapy Development and Clinical Trial Results for X-linked Myotubular Myopathy
Jim Dowling, MD, PhD
Hospital for Sick Children, Toronto

Navigating Two Major Hurdles in Therapeutic Development: IND Submissions and Ethical Issues
Megan A. Waldrop, MD
Nationwide Children's Hospital

An Evidence-based Approach to Clinical Decision-Making in Pediatric Neuromuscular Disorders
Maryam Oskoui, MD, MSc
McGill University, Montreal, Quebec

SESSIONS highlighted in maroon are designated for CME credit.
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10:30 AM -11:00 AM

Martha Bridge Denckla Award Lecture

Shafali Jeste, MD
Las Madrinas Chair and Chief, Division of Neurology
Co-Director, Neurological Institute
Professor of Neurology and Pediatrics
USC Keck School of Medicine

11:15 AM - 12:15 PM

Workshop #3: Diagnostic Challenge: Mimickers of Neuroinflammatory Diseases

DESCRIPTION

Autoimmune encephalitis and other neuroinflammatory diseases are increasingly recognized in children. However, other mimickers of neuroinflammatory diseases are rare and can be overlooked. The differential diagnosis can be broad for children who present with symptoms of developmental regression, cognitive changes, and new onset psychiatric symptoms. These diagnoses can include genetic disorders, inborn errors of metabolism, infections, autoimmune encephalitis, and psychiatric disorders. We will discuss the diagnostic evaluation for suspected autoimmune encephalitis along with illustrative cases to help guide clinicians in approaching a patient with suspected autoimmune encephalitis and recognizing and diagnosing alternate diagnoses.

Careful and comprehensive diagnostic evaluation is necessary for children with suspected autoimmune encephalitis, as is improving understanding of diagnostic testing, including interpretation of results to help guide diagnosis and management. This topic is relevant to all child neurologists, as due to the increased recognition of autoimmune neuroinflammatory diseases, practitioners will encounter patients with suspected autoimmune encephalitis.

LEARNING OBJECTIVES

As a result of this educational session, participants will be able to:

- Evaluate a patient with suspected neuroinflammation.
- Recognize when to evaluate for other conditions that can mimic neuroinflammatory diseases.

IMPACT STATEMENT

This educational session helped me to identify changes I could make in my practice related to:

- Diagnostic studies in children with suspected neuroinflammatory diseases.
- Understanding pearls and pitfalls in ancillary test results for neuroinflammation and red flags for a non-neuroinflammatory condition.

ORGANIZER

Grace Gombolay, MD, MSC
Emory University
Children's Healthcare of Atlanta (CHOA)

Introduction
Approach to suspected autoimmune encephalitis: Panel

Panel and Group Discussions
Melissa Wright, MD
Primary Children's Hospital Utah
University of Utah

Lydia Marcus, MD
University of Alabama-Birmingham

Varun Kannan, MD
Emory University School of Medicine
Children's Healthcare of Atlanta

Case 1: A teenage girl with altered mental status and anorexia: Cobalamin C deficiency

Case 2: Mimicker of ADEM – Aicardi Goutieres Syndrome

Case 3: POLG presenting as NORSE

Case 4: TBD

Discussion and Questions: Panel

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11:15 AM - 12:15 PM

Workshop #4: Clinical Trial Readiness for Rare Neurological Diseases

DESCRIPTION

The advancement of precision therapies hinges upon the expanding capabilities of genetic testing, a deeper understanding of disease mechanisms, and a systematic approach to the natural history of rare neurological diseases in children. In this seminar, we delve into the intricate landscape of investigator-initiated gene therapy development, with a specific focus on the critical aspect of clinical trial readiness. Clinical trial readiness stands as a pivotal milestone, beginning with a thorough understanding of disease natural history that then enables the selection and development of clinical research tools essential for designing efficient clinical trials. We aim to demystify this concept by providing a comprehensive checklist and engaging in discussions, drawing from the collective expertise of our speakers who possess firsthand experience in rare neurological disorders. Through the lens of conditions such as AADC deficiency, giant axonal neuropathy, and hereditary spastic paraplegia, we will navigate the challenges encountered in the pursuit of clinical trial readiness. This includes 1) defining the phenotypic spectrum through cross-sectional analyses in a geographically dispersed patient population, 2) opportunities to learn from 'extreme' phenotypes, 3) understanding patient and caregiver priorities, 4) designing and creating critical resources for longitudinal natural history studies, 5) using natural history data to inform the therapeutic window and endpoints in interventional studies, 6) maximizing learnings from first-in-human phase 1/2 studies, and 7) expanding to pivotal studies and other avenues for sustained access to therapy and continued evaluation. Our session goes beyond theoretical discourse, offering a practical framework for establishing clinical trial readiness. We explore how child neurologists specializing in rare diseases can leverage these principles to enhance both clinical care and research. We look forward to lively discussions as we portray the complexities of this field, highlight the value of clinical expertise, empower participants, and work towards advancements in the treatment of rare neurological disorders.

LEARNING OBJECTIVES

As a result of this educational session, participants will be able to:

- Define clinical trial readiness for rare neurological diseases.
- Identify key challenges in the development of gene therapies for rare neurogenetic and neurodegenerative diseases.

IMPACT STATEMENT

This educational session helped me to identify changes I could make in my practice related to:

- Identifying changes in rare neurological diseases.
- The developing clinical outcome measures for rare neurological diseases.

ORGANIZER

Darius Ebrahimi-Fakhari, MD, PhD
Boston Children's Hospital
Harvard Medical School

DISCUSSION LEADERS

Toni S. Pearson, MBBS
Nationwide Children's Hospital
The Ohio State University

Darius Ebrahimi-Fakhari, MD, PhD
Boston Children's Hospital
Harvard Medical School

Diana Bharucha-Goebel, MD
Children's National Hospital
George Washington School of Medicine and Health Sciences
NINDS/NIH

Xilma R. Ortiz-Gonzalez, MD, PhD
Children's Hospital of Philadelphia

SESSIONS highlighted in maroon are designated for CME credit.
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Tuesday, November 12 CONTIN

11:15 AM - 12:15 PM

Workshop #5: Reviewing Manuscripts: What, When, Why, and How

DESCRIPTION

The session will begin with a brief introduction to reviewing manuscripts, followed by a moderated panel discussion with editors from each of the major child neurology journals. The session will conclude with a small-group, hands-on activity in which participants will do a group review of a sample manuscript. Participants will be provided with a helpful packet of review resources to take home.

LEARNING OBJECTIVES

As a result of this educational session, participants will be able to:

- Explain why publishing papers and peer review are important.
- Have a systematic approach to peer review a manuscript.

IMPACT STATEMENT

This educational session helped me to identify changes I could make in my practice related to:

- When and how to submit a manuscript.
- When and how to perform peer review,

ORGANIZER

Ariel Lyons-Warren, MD, PhD
Baylor College of Medicine
Texas Children's Hospital

PANEL MODERATOR

Ariel Lyons-Warren, MD, PhD
Baylor College of Medicine
Texas Children's Hospital

PANELISTS AND SMALL GROUP LEADERS

Marc C. Patterson, MD
Mayo Clinic Children's Center

Yasmin Khakoo, MD, FAAN, FAAP
MSK Kids at Memorial Sloan Kettering Cancer Center
Weill Cornell Medical College

Courtney J. Wusthoff, MD MS
University of California, Davis, School of Medicine

E. Steve Roach, MD
The University of Texas Dell Medical School

SMALL GROUP LEADERS

Sonika Agarwal, MBBS, MD, FAAN
Children's Hospital of Philadelphia

Charu Venkatesan, MD, PhD
Cincinnati Children's Hospital Medical Center

Dawn Gano, MD, MAS
University of California, San Francisco

11:30 AM - 7:00 PM

Exhibits and Poster Review

12:30 PM - 1:45 PM

Guided Poster Tour #1

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2:00 PM - 3:15 PM

Seminar 1:
Genetic Testing: Essential Skills for Daily Practice

DESCRIPTION

The convergence of discoveries in neurotherapeutics, advances in genomic sequencing, and limited access to medical genetics expertise has created an imperative for both practicing and in-training child neurologists to incorporate genetics into their daily clinical toolbox. Despite this imperative, most child neurologists have limited genetics training, hindering their ability to care for patients and teach and mentor current residents to order and interpret genetic tests and counsel families. This seminar will address this gap based on the results of two recent surveys (Sen et al., PMID: 35656773; Gottlieb-Smith et al., PMID: 38217941) categorizing child neurologists' educational needs and best models for developing a national neurogenetics curriculum.

With guidance from Child Neurology Society leadership, a group of dual-trained neurogeneticists and pediatric neurologists with expertise in rare disorders developed 15 case-based, interactive neurogenetics learning modules to be distributed to CNS membership. These modules are designed to be delivered by child neurology facilitators, including those with limited neurogenetics expertise. In this pilot seminar, faculty moderators with complementary expertise will help attendees develop their neurogenetics toolbox. After a brief presentation covering basic genomic testing terminology and high-yield resources for test interpretation, moderators will guide attendees in small groups to apply these skills to two clinical modules. Learning objectives will include strategies and best practices for genetic testing and variant interpretation.

LEARNING OBJECTIVES

As a result of this educational session, participants will be able to:

- Utilize genetic counseling for pre- and post-test counseling when ordering genetic tests, gene panel, chromosomal microarray, and exome and whole genome sequencing.
- Design a clinical phenotyping approach and genetic testing strategy for epilepsy and movement disorders.
- Distinguish different modes of inheritance (X-linked, autosomal recessive, autosomal-dominant, mitochondrial), demonstrate how to obtain a detailed family history, and construct a pedigree.
- List various criteria by which genetic variants are classified, per American College of Medical Genetics guidelines.
- Compare and contrast the methods and limitations of different genetic tests.
- Use OMIM, ClinVar, GeneReviews, Varsome, and other websites to interpret genetic variants.

IMPACT STATEMENT

This educational session helped me to identify changes I could make in my practice related to:

- Facilitating a learner-centered, interactive, case-based, neurogenetics education module
- Selection of gene testing modalities
  - o Genetic variant interpretation
  - o Pre- and post-test counseling
  - o Utilizing online resources and experts in neurogenetics

ORGANIZERS

Kuntal Sen, MD, FACMG
Children's National Hospital
GWU School of Medicine and Health Sciences

Louis Dang, MD, PhD, FAES
Mott Children's Hospital
University of Michigan

SCIENTIFIC LIAISON

Kristina Julich, MD
Dell Medical School
UT Health Austin

DISCUSSION LEADERS

Kuntal Sen, MD, FACMG
Children's National Hospital
GWU School of Medicine and Health Sciences

Margie Ream, MD, PhD, FAAN
Nationwide Children's Hospital
The Ohio State University

Louis Dang, MD, PhD, FAES
Mott Children's Hospital
University of Michigan

Amitha Ananth, MD
The University of Alabama at Birmingham

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Andrea Gropman, MD, FACMG, FAAP, FANA
Children's National Hospital
GWU School of Medicine and Health Sciences
Genetic Medical Research Center

Donald Gilbert, MD, MS, FAAN, FAAP
Cincinnati Children's Hospital
University of Cincinnati

2:00 PM - 3:15 PM

Seminar 2: The Clinician-Educator Path for Child Neurologists

DESCRIPTION

Despite being essential to the field of child neurology, the clinician-educator career path is often poorly understood and undervalued in contrast to other career paths, such as clinician-teacher or clinician-investigator. This seminar, tailored to academic child neurologists in the early to mid-career stages, will discuss the clinician-educator pathway, what it entails, and how one goes about pursuing a career in child neurology education. We will discuss both the challenges and opportunities that exist for child neurology educators, including the specific issue of neurophobia in learners. Toolsets that can be used in education research, such as qualitative methodology and simulation, will also be discussed. With regards to simulation in particular, we will discuss the history of the use of this tool in medical education and will provide a specific evidence-based example of simulation-in-action in pediatric neurology ("The Move"). Finally, Dr. Vidaurre will provide a global perspective by reviewing the challenges of delivering child neurology education in diverse and lower-resourced settings.

LEARNING OBJECTIVES

As a result of this educational session, participants will be able to:

- Identify the opportunities and challenges of choosing a career as a clinician educator in child neurology.
- Discuss how to use simulation and online resources in child neurology education, as well as the issues in delivering child neurology education in lower-resource settings.

IMPACT STATEMENT

This educational session helped me to identify changes I could make in my practice related to:

- The issues surrounding child neurology education in high- and low-resource settings.
- Consider the use of simulation in child neurology teaching.

ORGANIZER

Asif Doja, MD, MEd, RECPC, FAAN
Children's Hospital of Eastern Ontario

SCIENTIFIC LIAISON

Nancy Bass, MD
Children's Wisconsin Medical College of Wisconsin

What is a Clinician Educator in Child Neurology?
Asif Doja MD, MEd, FRCPC, FAAN
Children's Hospital of Eastern Ontario

"The Move": An Example of Simulation-Based Education in Child Neurology
Emmanuel Flamand-Roze, MD, PhD
Sorbonne University
AP-HP, Salpetriere hospital
INSERM, CNRS, Paris Brain Institute

Child Neurology Education in Lower-Resource Settings
Jorge Vidaurre, MD
Nationwide Children's Hospital
The Ohio State University

2:00 PM - 3:15 PM

Seminar 3: Clinical Registry Implementation: The How-To and the Value

DESCRIPTION

Clinical research registries are foundational for advancing clinical practice. Advantages include promoting standardized care and screening practices, outcome tracking for quality improvement initiatives, elucidating the epidemiology of health conditions (particularly for rare conditions), determining disparities in care between different demographic groups, and facilitating clinical trial recruitment and enrollment. Therefore, clinical research registry implementation has both research and clinical benefits. However, implementation of these research registries can be daunting for individual practitioners. Even after implementation, research registries can feel time-consuming to populate.

SESSIONS highlighted in maroon are designated for CME credit. Agenda and amount of CME credits available are subject to change.

In this seminar, we will discuss how to implement clinical research registries as a part of routine clinical practice. We will discuss how to adapt the standardized notes and intake assessments from clinical research registries to best fit one's own clinical workflow. We will also discuss how to start your own clinical registry, including resources and funding mechanisms to facilitate this. Our goal is for pediatric neurologists and neurodevelopmentalists to feel compelled and capable of including clinical research registries as a part of their routine clinical practice.

LEARNING OBJECTIVES

As a result of this educational session, participants will be able to:

- Describe at least three strategies for implementing clinical research registries in their routine clinical practice.
- Describe at least three examples of how clinical research registry implementation can improve their clinical workflows.

IMPACT STATEMENT

This educational session helped me to identify changes I could make in my practice related to:

- Implementation of clinical research registries in my routine clinical practice.
- How clinical research registry implementation can improve my clinical workflow.

ORGANIZER

Bhooma Aravamuthan, MD, DPhil
Washington University School of Medicine

SCIENTIFIC LIAISON

Renee Shellhaas, MD, MS
Washington University School of Medicine

Advantages and Limitations of Clinical Registry Research
Zachary Grinspan, MD, MS
Weill Cornell Medicine

Standardizing Care Using a Combination of Local and National Registries
Bhooma Aravamuthan, MD, DPhil
Washington University School of Medicine

Developing a Multi-center Prospective Registry
Grace Gombolay, MD, MSC
Emory University
Children's Healthcare of Atlanta (CHOA)

3:30 PM - 4:45 PM

Seminar 4: Caring for a Person with Cerebral Palsy from Infancy to Adulthood

DESCRIPTION

Cerebral palsy (CP) is the most common motor disability across the lifespan and affects up to four of every 1,000 people globally. The care of people with CP requires collaboration across disciplines and frequently involves neurology and orthopedic surgery specialties. The complex medical and surgical management options faced by families of people with CP, particularly noting that current management strategies are based largely on expert opinion, require the active involvement of caregivers in shared medical decision-making. CP has been increasingly discussed at the Child Neurology Society Annual Meeting in recent years with a focus on diagnostic variability and the need for increased neurologist involvement in management. However, these discussions have been limited to neurology practitioners and do not do justice to the rich realities of multidisciplinary CP care. We propose viewing CP care through the lens of a single hypothetical individual with CP as they age from six months to 25 years. Our panelists, a child neurologist, orthopedic surgeon, and caregiver of an adult with CP, will discuss this hypothetical person's care during multidisciplinary CP center visits as they age. Panelists will be explicit regarding what reflects evidence-based practice vs. consensus expert opinion vs. their own personal expertise. They will also discuss how they would approach shared medical decision-making. At each time point, the audience will be encouraged to ask questions and contribute their perspectives. Our goal is for attendees to understand how care of a person with CP evolves as they age, the value of integrating diverse medical and family perspectives in CP care, and strategies for shared decision-making in CP care.

LEARNING OBJECTIVES

As a result of this educational session, participants will be able to:

- Describe how the symptoms of CP evolve across the lifespan.
- Describe how neurologists, orthopedists, and caregivers may approach the care of a person with CP across their lifespan.

SESSIONS highlighted in maroon are designated for CME credit.
Agenda and amount of CME credits available are subject to change.

IMPACT STATEMENT
This educational session helped me to identify changes I could make in my practice related to:

- Multidisciplinary care of neurodevelopmental disabilities.
- Using shared decision-making strategies to optimize family-centered care.

ORGANIZER
Young-Min Kim, MD
Loma Linda University School of Medicine

SCIENTIFIC LIAISON
Bhooma Aravamuthan, MD, DPhil
Washington University School of Medicine Panelists

Heather Riordan, MD
Kennedy Krieger Institute

Hank Chambers, MD
Rady Children's Hospital
University of California at San Diego

Jill Chambers
San Diego, CA

3:30 PM - 4:45 PM

Seminar: 5: Harnessing Technology for Career Growth and Development

DESCRIPTION
This course will focus on the effective integration of technology to optimize professional productivity, improve communication, and build networks and connections. Introductory practical insights and strategies for harnessing digital tools and technology across broadly applicable backgrounds and professional goals will be presented. Following this brief introduction, participants will have the opportunity to participate in three of four small-group interactive sessions. These will include: 1) Harnessing Emerging Technology, which will focus on AI use in the professional setting; 2) Digital Productivity Tools; 3) Building Your Network; and 4) Capturing Digital Scholarship for Promotion and Tenure. The session will conclude with an opportunity for gamification, a fun and practical way to apply newly learned skills throughout the remainder of the annual meeting. Participants need a laptop or iPad for full engagement.

SESSIONS highlighted in maroon are designated for CME credit. Agenda and amount of CME credits available are subject to change.

LEARNING OBJECTIVES
As a result of this educational session, participants will be able to:

- Integrate emerging technologies and digital tools into their daily practice to enhance professional productivity and patient care in child neurology.
- Leverage digital platforms for building professional networks and capturing digital scholarship specific to their unique professional goals, career stages, and practice settings.

IMPACT STATEMENT
This educational session helped me to identify changes I could make in my practice related to:

- The incorporation of digital tools and emerging technologies for my personal and professional productivity.
- The incorporation of digital platforms to build my professional network and capture my digital activities in traditional academic promotion pathways.

ORGANIZER
Kathryn Xixis, MD
University of Virginia

SCIENTIFIC LIAISON
Yasmin Khakoo, MD, FAAN, FAAP
MSK Kids at Memorial Sloan Kettering Cancer Center
Weill Cornell Medical College

Introduction
Jaclyn Martindale, DO
Wake Forest University School of Medicine

Harnessing Emerging Technology
Matthew Gombolay, PhD
Georgia Institute of Technology

Digital Productivity Tools
Jessica Goldstein, MD
University of Minnesota Medical School

Building Your Network
Alison Christy, MD, PhD
Providence Health and Services

Karla Salazar, MD
Baylor College of Medicine

Capturing Digital Scholarship
Kathryn Xixis, MD
University of Virginia

Skill Building Through Gamification, Session Debrief, Q&A
Jeffrey Strelzik, MD
Children's National Medical Center
George Washington University School of Medicine and Health Sciences

3:30 PM - 4:45 PM

Seminar 6: Bridging Academia and Industry to Advance Precision Medicine

DESCRIPTION

The field of child neurology is experiencing unprecedented growth in precision medicine, which is impacting our patient population. As next-generation sequencing identifies more children with neurogenetic conditions, more families with rare diseases are looking to develop new therapies customized to their child's condition. Also, newborn screening has given rise to more patients-in-waiting, prompting further need to optimize biomarkers and therapeutics. The past decade has witnessed approval of several transformative therapies in child neurology. The clinical trials leading up to these approvals were mostly built by bringing multiple stakeholders together and creating joint partnerships between academia and industry. Some clinician-scientists built companies in order to execute trials for disenfranchised communities. In other scenarios, patient advocates raised awareness and facilitated partnerships. Now, commercial approval of gene therapies for spinal muscular atrophy, muscular dystrophies, and leukodystrophies is changing our clinical landscape. Yet many disparities remain and are accentuated by socioeconomic, ethnic, and geographic factors. Recently, the NIH, the U.S. Food and Drug Administration (FDA), multiple pharmaceutical and life science companies, and nonprofit organizations created a public-private partnership to accelerate drug development. As part of this effort, the Bespoke Gene Therapy Consortium is establishing platforms and standards to speed the development and delivery of gene therapies for millions of people with rare diseases. This seminar will present a variety of different paths to partnerships between academia and industry and perspectives on moving from biological insights to company formation, clinical trialist interactions with industry as well as novel ways to work with NIH and regulatory authorities in the rare disease space. Both opportunities and challenges in resources, access, and scale will be discussed.

LEARNING OBJECTIVES

As a result of this educational session, participants will be able to:

- Identify the steps of therapy development that require academia-industry partnership and provide concrete examples thereof.
- Represent patient perspectives while addressing opportunities and challenges around self-interest in the realm of academia-industry partnership.

IMPACT STATEMENT

This educational session helped me to identify changes I could make in my practice related to:

- Strategic partnerships with industry.
- Engaging with patients in how to access new commercial therapies, clinical trials, anticipated new technology, and disparity in access.

ORGANIZER

Florian Eichler, MD
Massachusetts General Hospital
Harvard Medical School

SCIENTIFIC LIAISON

Raman Sankar, MD, PhD, FAAN, FAES
David Geffen School of Medicine at UCLA

Partnering to Address Unmet Need: From Patient Plight to Precision Medicine
Florian Eichler, MD
Massachusetts General Hospital
Harvard Medical School

Challenges in Gene Therapy for Neuromuscular Disorders: From Early Development to Commercial Implementation
Anne Connolly, MD, FAAN
Nationwide Children's Hospital
The Ohio State University

Beyond "One Disease at a Time": Therapeutic Platforms to Treat Monogenic Disease
Philip J. Brooks, PhD
Rare Diseases Innovation, NCATS/NIH

5:00 PM - 5:30 PM

CNS Annual Business Meeting

5:00 PM - 6:30 PM

Wine and Cheese Reception

5:30 PM - 7:00 PM

Guided Poster Tour #2

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Wednesday, November 13 (Schedule subject to change)

8:00 AM - 8:15 AM

CNS/CNF Awards and ACNN Awards

8:15 AM - 8:45 AM

Philip R. Dodge Young Investigator Award Lecture

TBA

8:45 AM - 9:30 AM

Bernard Sachs Award Lecture

Elizabeth Engle, MD
Boston Children's Hospital, Harvard Medical School

10:00 AM - 11:15 AM

Seminar 7: The Effect of Global Socio-Cultural Factors on Child Neurology Care

DESCRIPTION

Socio-cultural anthropology looks at the diversities of human society in time and space, while also searching for commonalities among them. It analyzes local and global links and past and present history to understand current challenges. A systemic global review of felt and enacted stigma in epilepsy by the International League Against Epilepsy determined that the term epilepsy was contributory to both types. Negative attitudes were observed in all reviews, and there was global commonality of causes identified. Health care providers' view of patients and societal stigma in their own country/cultures may give a window into how it may tie to religion, management, and other aspects of epilepsy care. Similar stigma and societal concerns have been identified with cerebral palsy (CP). An approach looking at physical, environmental, psychological, and social factors has revealed a more holistic view of growing up with CP. This may be compounded by fiscal challenges, especially if growing up in a low- or middle-income country. Cultural and linguistic sensitivities may have direct ramifications on management, morbidity, and mortality. Understanding important socio-cultural nuances is, therefore, an important part of comprehensive neurological care delivery for children. In this seminar, we aim to explore how specific historical, cultural, and societal beliefs have influenced perceptions, understanding of diagnosis, and adherence. Lecture 1: What's in a name: The literal cross-cultural meaning of epilepsy. Lecture 2: Beyond the motor disability: Societal beliefs that influence prognosis and lifestyle of children with cerebral palsy. Lecture 3: Understanding cultural differences in child neurology: Language, communication, and beyond. References: Kwon CS et al. Epilepsia. 2022 Mar;63(3):573-597. Hanes et al. Child Care Health Dev. 2019 Sep;45(5):613-622. Abdel Malek S, Rosenbaum P, Gorter JW. Child Care Health Dev. 2020 Mar;46(2):175-186.

LEARNING OBJECTIVES

As a result of this educational session, participants will be able to:

- Demonstrate their understanding of how historical words and cultural beliefs affect present-day neurological management and provide specific examples in both children with cerebral palsy and epilepsy.
- Improve communication considering socio-cultural differences.

IMPACT STATEMENT

This educational session helped me to identify changes I could make in my practice related to:

- Becoming more aware of the impact of socio-cultural differences in the delivery of neurological care.
- Improving communication between physician and patient/family members understanding the specific cultural environment and language barriers.

ORGANIZER

Dave F. Clarke, MBBS, ABPN, ABCN, FAES
Dell Medical School
University of Texas at Austin

SCIENTIFIC LIAISON

Alcy R. Torres, MD
Boston Medical Center

SESSIONS highlighted in maroon are designated for CME credit.
Agenda and amount of CME credits available are subject to change.

MODERATOR
Mubeen Rafay, MB, BS, FCPS, MSc
Children's Hospital Research Institute of Manitoba

What's in a Name: The Literal Cross-Cultural Meaning of Epilepsy
Dave F. Clarke, MBBS, ABPN, ABCN, FAES
Dell Medical School
University of Texas at Austin

Beyond the Motor Disability: Societal Beliefs That Deeply Influence Prognosis and Lifestyle of Children with Cerebral Palsy
Charles K. Hammond, MB, ChB, FWACM, FGCP
Komfo Anokye Teaching Hospital

Understanding Cultural Differences in Child Neurology: Language, Communication, and Beyond
Maria T. Acosta, MD
Children's National Medical Center
ADHD Genetic Study NHGRI, NIH

10:00 AM - 11:15 AM

Seminar 8: Addressing Gender Disparities in Academic Child Neurology

DESCRIPTION
Women in academia have historically lagged men by traditional measures of success across specialties. However, the extent and implications of gender gaps remain to be defined in academic child neurology. In Part 1, we will present two studies on gender equity in academic child neurology, conducted by the CNS Research Committee. We compiled data for all board-certified child neurologists between 2000-2020, including gender, geographical location, academic rank, number of publications, and NIH funding. The number of board-certified child neurology diplomates reached gender parity in 2005, with women exceeding men since 2011. Currently, women in academic child neurology outnumber men, and more women than men are assistant professors. However, only 7% of women are full professors, compared to 17% of men. Men had a higher average number of publications than women; yet the H-index of men and women for their publications were similar. Further, we examined how metrics of professional success evolved in academic child neurology, by gender, between 2000-2020. In a follow-up survey- and interview-based study, we are collecting detailed information about factors that positively or negatively impacted careers of academic child neurologists. Notably, this second study enables inclusion of non-binary or transgender identities, as well as data on racial and ethnic background. In Part 2, study members will facilitate small group discussions about the presented findings and brainstorm next steps for individuals at different career stages, institutions, and national organizations such as CNS. In Part 3, groups will summarize their discussions, with commentary from a panel of experts. The goals of this session are: 1) define the current status of gender equity in academic child neurology, based on data compiled by the CNS Research Committee and 2) identify strategies to help faculty succeed as academic child neurologists.

LEARNING OBJECTIVES
As a result of this educational session, participants will be able to:

- Describe gender disparities in academic child neurology, and how these disparities have evolved over the last 20 years.
- Identify ways to address gender disparities in academic success through Child Neurology divisions/departments, and/or through national organizations like the Child Neurology Society.

IMPACT STATEMENT
This educational session helped me to identify changes I could make in my practice related to:

- Identifying professional gender disparities.
- Implementing strategies to address gender-based disparities and advance my career or that of my colleagues.
- Promoting professional success in academic careers.

ORGANIZER
Juliet Knowles, MD, PhD
Stanford University School of Medicine

SCIENTIFIC LIAISON
Nomazulu Dlamini, MD, MBBS, MRCPCH, MSc, PhD
Sick Kids University of Toronto

Gender-based Disparities in Academic Neurology, 2000-2020
Juliet Knowles, MD, PhD
Stanford University School of Medicine

Identifying Critical Factors to Academic Success for Pediatric Neurologists
Angela Hewitt, MD, PhD
University of Rochester Medical Center

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PANELISTS
Duriel Hardy, MD
Dell Children's Medical Center
University of Texas at Austin, Dell Medical School

Monica Lemmon, MD
Duke University School of Medicine

Renee Shellhaas, MD, MS
Washington University School of Medicine

Josh Bonkowsky, MD, PhD
Primary Children's Hospital
University of Utah

10:00 AM - 11:15 AM

Seminar 9: Cerebellar Contributions to Neurodevelopment

DESCRIPTION
In this seminar, we will undertake an exploration of the profound role that cerebellum and cerebellar injury plays in neurodevelopment. From the impact of injury suffered in prematurity to more focal lesions later in life, our speakers will detail how advanced imaging, clinical findings, and model organism-based research have uncovered the intimate relationship between the cerebellum and cortical network structure and function. Attendees will leave with a deeper understanding of one of the most exciting areas of cognitive neuroscience and a new perspective to help frame prognostic discussions.

LEARNING OBJECTIVES
As a result of this educational session, participants will be able to:

- Understand the demographics of prematurity, highlighting the racial and socioeconomic vulnerability of this population.
- Critically evaluate the role of cerebellar pathology in predisposing patients to a broad spectrum of neurodevelopmental disability.

IMPACT STATEMENT
This educational session helped me to identify changes I could make in my practice related to:

- Discussions about prognosis in children born prematurely.
- Critically evaluating neurodevelopmental disability in patients with cryptic etiologic work-ups.

ORGANIZER
Jason Gill, MD, PhD
Texas Children's Hospital
Baylor College of Medicine

SCIENTIFIC LIAISONS
Timothy R. Gershon, MD, PhD
UNC School of Medicine

Ariel Lyons-Warren, MD, PhD
Baylor College of Medicine
Texas Children's Hospital

Preterm Birth and Developmental Cerebellar Cognitive Affective Syndrome
Catherine Limperopoulos, PhD
Children's National Hospital
George Washington School of Medicine

Cerebellar Lesion Location Influences Outcomes
Aaron Boes, MD, PhD
University of Iowa
Carver College of Medicine

Cerebellum and Behavior: Mouse Models of Cerebellar Dysfunction
Jason Gill, MD, PhD
Texas Children's Hospital
Baylor College of Medicine

12:30 PM - 1:45 PM

Seminar 10: Restoring Function: Management of Functional Neurologic Disorders

DESCRIPTION
Most child neurologists will encounter Functional Neurologic Disorder. The incidence of this disorder is 18:100,00, and these patients make up to ten percent of new patients in child neurology clinics. We know that the cost of pediatric functional neurological disorder is 75 million dollars in unnecessary hospitalizations and another 13 million in emergency room visits. We also know that many patients with this disorder find their interactions with medical providers dismissive and distressing. It is harder to quantify the impact of the disorder on the patients themselves as there is strikingly little literature on the cost of functional neurologic disorder to the patient in terms of measures such as school absences, which likely speaks to medical bias

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these patients face. Despite it being relatively common, many providers find it challenging to diagnose and provide optimal care for affected individuals. There are a variety of factors that contribute to this, including discomfort with communicating the diagnosis in a way that is both understandable and satisfying for patients and families, limited understanding of the treatment for FND, and lack of resources for patients. These all contribute to the scarcity of providers that treat FND and continue to generate health disparities in this population. We aim with this seminar to start closing the gap in access to high quality care for patients with FND. We will begin by reviewing current understanding of the mechanisms underlying functional neurologic symptoms. We will then discuss how to translate this knowledge into an effective, palatable, and therapeutic discussion of the symptoms with patients and common roadblocks to patient acceptance and understanding. We will then discuss and review options for treatment of these symptoms with patients, including finding resources for treatment local to providers.

LEARNING OBJECTIVES

As a result of this educational session, participants will be able to:

- Demonstrate the ability to explain the diagnosis and its mechanism in a therapeutic manner.
- Recommend evidence-based treatment of FND.

IMPACT STATEMENT

This educational session helped me to identify changes I could make in my practice related to:

- Delivering the diagnosis of functional neurologic disorder in a patient-friendly, therapeutic manner.
- Recommending evidence-based treatment for FND.

ORGANIZER

Shannon Dean, MD PhD
Kennedy Krieger Institute
Johns Hopkins University

SCIENTIFIC LIAISON

Daniel Freedman, DO
Dell Medical School
UT Health Austin

Current Understanding of FND Mechanisms
Shannon Dean, MD PhD
Kennedy Krieger Institute
Johns Hopkins University

Delivering the Diagnosis
Julio F. Quezada, MD
Kennedy Krieger Institute

Evidence-Based Treatment of FND
Gisela Sandoval, MD, PhD
Standford University

12:30 PM - 1:45 PM

Seminar 11: View from The Top: Hiring, Salary, and Promotion in Academia

DESCRIPTION

Navigating the academic career path can be difficult, particularly without knowing how academic divisions and departments operate within and outside your own institution. Furthermore, it may be intimidating to ask one's own department chair or division chief about hiring practices, salary negotiations, and promotion criteria. In this seminar, we have assembled seasoned division chiefs and department chairs, all child neurologists, from across the country to answer these questions for you. We will solicit questions from the audience anonymously (written on index cards) and ask pre-prepared questions, including:

- *Where is pediatric neurology housed at your institution (Pediatrics/Neurology/stand-alone)?*
- *What are the funding streams that supply this division?*
- *How do you approach hiring?*
- *How do you use conferences like CNS to facilitate that?*
- *How should someone approach you if they're interested in working for you at a conference such as this? How do you determine salaries for your employees?*
- *How do you ensure salaries are equitable?*
- *Describe salary negotiation strategies from prospective employees that you think have been effective.*
- *What are the different professional tracks in your institutions?*

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- *How does the pathway to promotion differ between tracks?*
- *How do you ensure transparent and fair communication re: promotions criteria?*
- *How have you developed your hiring practices to ensure a diverse Division/Department?*
- *What's the best way to ask for a raise?*
- *What considerations go into you providing raises?*
- *(For whom it applies) How has being a woman and/or person of color affected your path in academic leadership?*
- *(For all) What mentorship do you provide women, people of color, and those underrepresented in neurology as they navigate academic leadership?*

LEARNING OBJECTIVES

As a result of this educational session, participants will be able to:

- Describe the diversity in pediatric neurology leadership and divisional structures across multiple institutions.
- Describe salary and hiring negotiation strategies that academic leaders have found to be successful.

IMPACT STATEMENT

This educational session helped me to identify changes I could make in my practice related to:

- Approaching my academic leaders for a raise or promotion.
- Optimally operating within my academic institution's funding and organizational structure.

ORGANIZER

Madeline Chadehumbe, MD
NeurAbilities Healthcare

SCIENTIFIC LIAISON

Bhooma Aravamuthan, MD, DPhil
Washington University School of Medicine

DISCUSSION LEADERS

Christina Gurnett, MD, PhD
St. Louis Children's Hospital
Washington University School of Medicine

Amy Brooks-Kayal, MD, FAAN, FANA, FAES
University of California, Davis, School of Medicine

Yoon-Jae Cho, MD
Doernbecher Children's Hospital
Oregon Health & Science University

Dalila Lewis, MD, FAAP
Medical University of School Carolina

Madeline Chadehumbe, MD
NeurAbilities Healthcare

12:30 PM - 1:45 PM

Seminar 12: Untangling the Impact of Social Stress on Early-life Brain Injury

DESCRIPTION

Social determinants of health are amongst the strongest factors associated with developmental outcomes after prenatal and perinatal brain injuries, even when controlling for the severity of the initial injury. Historically, animal models have provided vital insight into mechanisms perturbed by developmental brain injuries, indicating directions for novel therapeutics or interventions. Animal models are also used to learn how social environments affect brain maturation through enriched environments and early adverse conditions. While we recognize animal models cannot fully recapitulate human social circumstances, in this symposium, we will urge that child neurologists be at the forefront of performing translational and mechanistic studies that combine models of developmental brain injuries and early life social environments to uncover novel insights into pathways important for recovery. Participants will learn about the clinical impact of social determinants of health on outcomes of acquired brain injury, current animal models of neonatal brain injury and social stress, and novel high-resolution single-cell molecular tools that promise to unravel the complex effects of acquired brain injuries and social determinants of health.

LEARNING OBJECTIVES

As a result of this educational session, participants will be able to:

- Recognize that social determinants of health are multi-dimensional and likely modify brain health in children through several mechanisms.
- Appreciate the strengths and limitations of combining animal models of perinatal brain injury with models of early life adversity or enrichment.

SESSIONS highlighted in maroon are designated for CME credit.
Agenda and amount of CME credits available are subject to change.

IMPACT STATEMENT
This educational session helped me to identify changes I could make in my practice related to:

- Considering how social-environmental factors impact outcomes of my patients
- Interpreting large dataset studies that can be used to study the interaction between environment and recovery from developmental brain injury.

ORGANIZER
Ana G. Cristancho, MD, PhD
Children's Hospital of Philadelphia
Perelman School of Medicine at the
University of Pennsylvania

SCIENTIFIC LIAISON
Dawn Gano, MD, MAS
University of California, San Francisco

MODERATOR
Nomazulu Dlamini, MD, MBBS, MRCPCH, MSc, PhD
Sick Kids
University of Toronto

SPEAKERS
Thiviya Selvanathan, MD, PhD
BC Children's Hospital
University of British Columbia

Danielle Guez Barber, MD, PhD
Children's Hospital of Philadelphia
Perelman School of Medicine at the University of Pennsylvania

Ana G. Cristancho, MD, PhD
Children's Hospital of Philadelphia
Perelman School of Medicine at the
University of Pennsylvania

2:15 PM – 4:00 PM

Platform Sessions I, II, and III

DESCRIPTION
It is important for all practitioners to stay up to date on the latest and most cutting-edge findings in the field. In these sessions, we will describe the most exciting research findings in our field from the past year that have yet to make it to the published literature. Attendees will get to hear about these findings first, before they hit journals. These findings will cover topics including new treatments or diagnostics, pathophysiology, and assessments of our current practice patterns.

LEARNING OBJECTIVES
As a result of this educational session, participants will be able to:

- Give examples of new treatments or diagnostics that may eventually be considered for pediatric neurologic and neurodevelopmental conditions.
- Give examples of the pathophysiology of a subset of pediatric neurologic and neurodevelopmental conditions.
- Give examples of how child neurologists and neurodevelopmentalists currently practice and some suggestions for improvement of current practice.

IMPACT STATEMENT
This educational session helped me to identify changes I could make in my practice related to:

- Integrating new treatments or diagnostics for pediatric neurologic and neurodevelopmental conditions.
- Identify changes I could make in my practice related to optimizing my understanding of the pathophysiology of pediatric neurologic and neurodevelopmental conditions.

4:30 PM - 6:00 PM

Junior Member Forum and Early Career Talks

7:00 PM - 9:00 PM

Closing Gala

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Thursday, November 14 (Schedule subject to change)

8:00 AM - 8:45 AM

Hower Award Lecture

Renee Shellhaas, MD, MS
Washington University School of Medicine,
St. Louis, Missouri

9:00 AM - 12:00 PM

Symposium III: Year in Review

DESCRIPTION

With new exciting advancements in child neurology in the areas of clinical care, research, new medications, gene therapies, and new technologies, this session provides an overview within different pediatric neurology subspecialties. Recent advancements in the past year will be covered in this symposium by experts in the field, with a focus on studies that are relevant to the general child neurologist. The topics will include epilepsy, neonatal neurology, stroke/neurocritical care, neuroimmunology, neuromuscular, neuro-oncology, diversity/equity/inclusion, movement disorders, headaches, and neurogenetics. Studies will include multi-center consortia and clinical trials. This symposium will provide an update on the most relevant and high-impact studies within child neurology.

LEARNING OBJECTIVES

As a result of this educational session, participants will be able to:

- Identify high-impact studies that have been published in child neurology in the past year.
- Discuss novel therapies and treatments available for pediatric neurological disorders.

IMPACT STATEMENT

This educational session helped me to identify changes I could make in my practice related to:

- Evidence-based practices for management of pediatric neurological diseases.
- Discussing important studies in pediatric neurology.

ORGANIZERS

Dave F. Clarke, MBBS, ABPN, ABCN, FAES
Dell Medical School
University of Texas at Austin

Grace Gombolay, MD, MSC
Emory University
Children's Healthcare of Atlanta (CHOA)

MODERATORS

Soe S. Mar, MD, MBBS, MRCP
Washington University School of Medicine

Shawn C. Aylward, MD
Nationwide Children's Hospital

Epilepsy
Ajay Gupta, MD
Cleveland Clinic

Stroke/Neurocritical Care
Lori C. Jordan, MD, PhD
Monroe Carell Jr. Children's Hospital at Vanderbilt

Neuroimmunology
Jennifer Graves, MD, PhD, MAS
Randy Children's Hospital
UC San Diego Health

Neonatology
Monica Arroyo, MD
Joe DiMaggio Children's Hospital

Neuromuscular
Hoda Abdel-Hamid, MD
UPMC Children's Hospital of Pittsburgh

Neurogenetics
Erika J. Axeen, MD
University of Virginia

Movement Disorders
Marisela Dy-Hollins, MD
Massachusetts General Hospital
Brigham and Women's Hospital

Headache
Clarimar Borrero-Mejas, MD
John Hopkins All Children's Hospital

DEI/SDOH
TBD

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Neurodevelopment
Audrey Brumback, MD, PhD
Dell Medical School
UT Health Austin

Sleep Medicine
Wei Liu, MD, PhD
University of Louisville School of Medicine

Global Pediatric Neurology
Alcy R. Torres, MD
Boston Medical Center

ANA
Howard P. Goodkin, MD, PhD
University of Virginia

AES
Rani K. Singh, MD
Atrium Health
Wake Forest University School of Medicine

AACPDM
Laurie J. Glader, MD
Nationwide Children's Hospital

12:15 PM - 4:15 PM

CNS Clinical Research Workshop: Data Quality and Analysis

DESCRIPTION

The Child Neurology Society Clinical Research Workshop began in 2021 in response to a desire for child neurologists to build confidence in conducting clinical research. The workshop is designed to follow a five-year arc, beginning with identifying a gap in the field, study design, and selecting outcome measures. Now in its fourth year, the 2024 clinical research workshop will focus on analyzing data. Topics will include requirements for the new NIH Data Management and Sharing Plan, recommendations on how to store data locally and in national repositories, avoiding common statistical pitfalls in analyzing data, and how to clearly and effectively present data in manuscripts, posters, and presentations. Topic presentations will be followed by a breakout session where participants can bring questions about their own data to share with the experts. The goal is for each participant to leave the workshop with practical tips and resources for storing, analyzing, and presenting data that they can apply to their own research. Each clinical research workshop is designed to stand alone, and new participants who have not attended previous workshops are encouraged to join.

LEARNING OBJECTIVES

As a result of this educational session, participants will be able to:

- Develop a better understanding of how to store and structure their research data to easily meet the new NIH data sharing and management plan requirements.
- Understand common statistical errors made when analyzing data.
- Create clear, effective figures to present their data in manuscripts, posters, and presentations.

IMPACT STATEMENT

This educational session helped me to identify changes I could make in my practice related to:

- Initiating new clinical research projects.
- Meaningful engagement in existing clinical research projects.

ORGANIZER

Rose Gelineau-Morel, MD
Children's Mercy, Kansas City

Welcome/Introduction
Rose Gelineau-Morel, MD
Children's Mercy, Kansas City

Tips for the New NIH Data Management and Sharing Plan
Kristi Hardy, PhD
NINDS/NIH

Efficient Data Storage and National Data Repositories
Alexander Li Cohen, MD, PhD
Boston Children's Hospital

Statistics Done Wrong
Donald Gilbert, MD, MS, FAAN, FAAP
Cincinnati Children's Hospital
University of Cincinnati

How to Present Your Data Effectively
Kurt Albertine, PhD
University of Utah Health, School of Medicine

SESSIONS highlighted in maroon are designated for CME credit.
Agenda and amount of CME credits available are subject to change.

12:15 PM - 4:15 PM

Biomedical Writing Workshop

DESCRIPTION

This four-hour, small-group interactive workshop is designed to help novice medical writers overcome common barriers to successful publication. We review common correctable reasons for manuscript rejection and teach effective techniques for overcoming writer's block. Using text examples, we illustrate techniques and pointers for improving manuscript quality. We teach effective methods to respond to revision requests and interact with journal editors. The session ends with a casual meet-the-editors question-and-answer period featuring several current or former medical editors. Major topics include:

1. Why Manuscripts Are Rejected: Overcoming Barriers to Publication
2. Keeping Things Moving: Combating Writer's Block
3. Creating Better Manuscripts: Less Is Often More
4. Responding to Reviews and Revising Your Manuscript
5. Rules of the Road: Permissions, Consents, and Other Potholes

LEARNING OBJECTIVES

As a result of this educational session, participants will be able to:

- Recognize common reasons for manuscript rejection.
- Know techniques to overcome writer's block.
- Develop strategies to improve manuscript quality.
- More effectively revise manuscripts and respond to reviewers and editors.
- Understand the basic requirements for republication, use of patient materials, and privacy concerns.

IMPACT STATEMENT

This educational session helped me to identify changes I could make in my practice related to:

- Improving the quality of the manuscripts submitted for publication.
- More effectively revising manuscripts following journal peer reviews.

ORGANIZER

E. Steve Roach, MD
The University of Texas Dell Medical School

Visit the CNS website for registration, travel, and hotel information.

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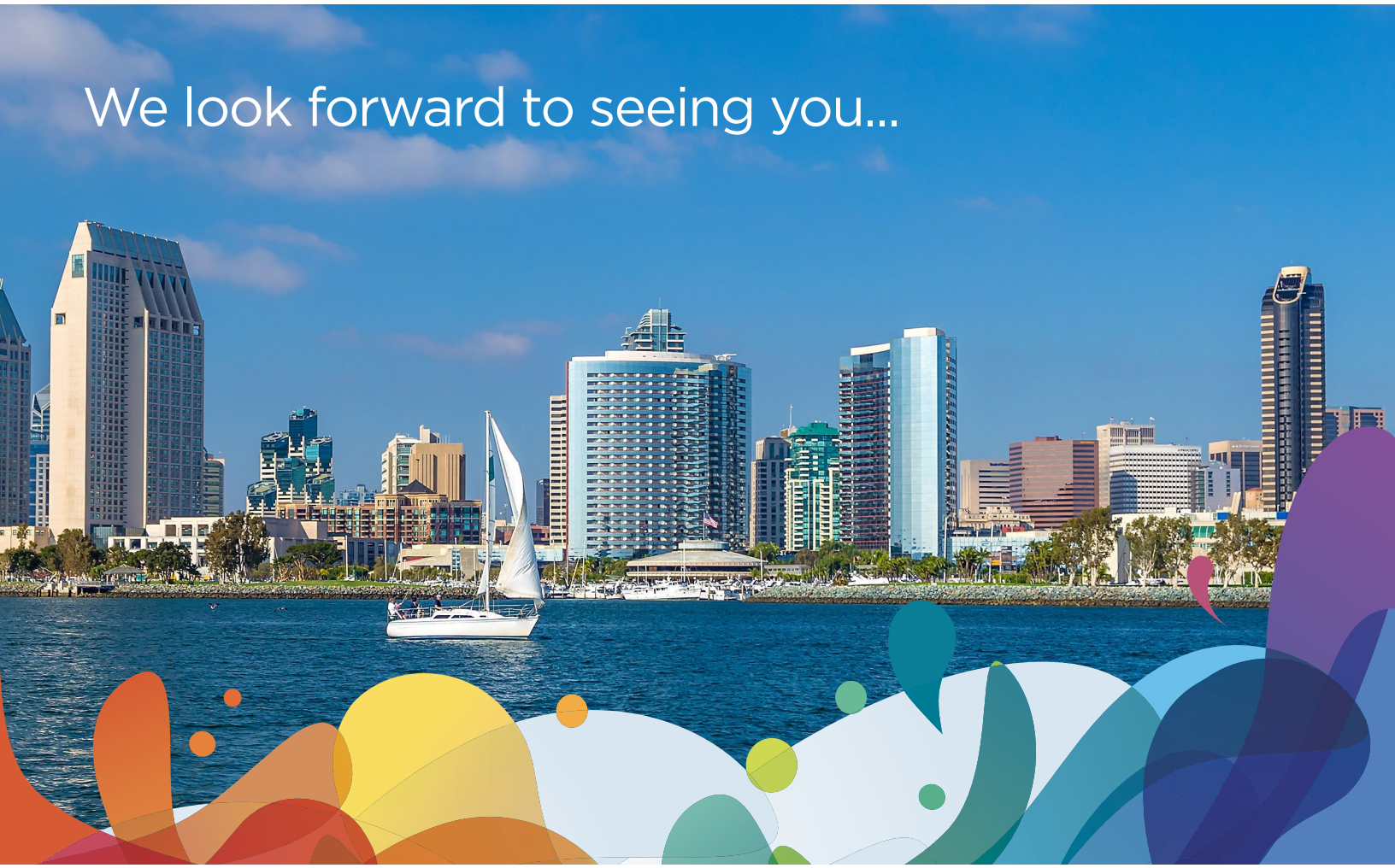
2024
CHILD NEUROLOGY SOCIETY
53rd ANNUAL MEETING
Nov. 11-14, 2024 • San Diego, CA



Mark Your Calendar for Future Meetings

2025
CHILD NEUROLOGY SOCIETY
54th ANNUAL MEETING
October 8-11, 2025 • Charlotte, NC

2026
CHILD NEUROLOGY SOCIETY
55th ANNUAL MEETING
October 14-17, 2026 • Montreal, QC