

77TH ANNUAL MEETING

**Chicago Marriott Magnificent Mile
September 10-13, 2023**

Winds of Hope



AACPD

PRELIMINARY PROGRAM

Dear Industry and Institution Professionals:

Our planning team is thrilled to welcome you to Chicago's Magnificent Mile for the American Academy for Cerebral Palsy and Developmental Medicine (AACPDM) 77th Annual Meeting. After a record-breaking abstract submissions year, we are excited about the options that will be available at the meeting, including 120 free paper presentations, 190 scientific posters, 45 demonstration posters, 23 clinical observation/single case study posters, 37 morning sessions, and 39 mini-symposia. We were impressed by the quality of the submissions and inspired by the diversity of the content. The theme of the 77th Annual Meeting is "Winds of Hope", and I am confident that visions of hope will be apparent in the showcase of the amazing work done in our scientific community.

The pre-conference courses encompass a broad range of topics designed to enhance clinical care and research. We are excited to partner with POSNA and SRS on a preconference program focused on neuromuscular spine; for the support from Northwestern to highlight offerings in the Technology-focused preconference; and the Shirley Ryan Ability Lab for their hosting of the annual Community Forum. The meeting program offers engaging keynote speakers; leaders in their fields who will share their cutting-edge research on a variety of topics, including focuses on mental health and well-being.

We invite you to attend the Welcome Reception in the main exhibit hall from 6:00-8:00 pm on Sunday September 10. Please be prepared to participate in the exhibit hall treasure hunt to be entered for daily prizes! We hope that you will join us for dinner with the largest dinosaur that ever lived at the Tuesday evening networking dinner and celebration at Chicago's historic Field Museum. We know this will be a fun evening and a wonderful opportunity to celebrate being together again.

Winds of Hope carry our Academy. We see the promise and hope in the information we learn and exchange during every Annual Meeting, and the Hope that is inspired when we return home and continue the work we do on behalf of our patients. Our hope is that this meeting will provide many opportunities for both existing and new collaborations to develop and thrive.

Best Regards,



M. Wade Shrader, MD
First Vice President



Bhooma Aravamuthan, MD, DPhil



Theresa Sukal Moulton, PT, DPT, PhD
Scientific Program Committee Co-Chairs

PRESIDENT
Lesley Pritchard PT, PhD
University of Alberta
Edmonton, AB

1ST VICE PRESIDENT
M. Wade Shrader, MD
Nemours A.I. duPont Hospital for Children
Wilmington, DE

2ND VICE PRESIDENT
Laurie Glader, MD
Nationwide Children's Hospital
Columbus, OH

TREASURER
Joline Brandenburg, MD
Mayo Clinic
Rochester, MN

SECRETARY
Golda Milo-Manson, MHSc, MD, FRCPC
University of Toronto
Holland Bloorview Children's Rehabilitation Hospital
Toronto, ON

PAST PRESIDENT (2021-22)
Tom F. Novacheck, MD
Gillette Children's St. Paul, MN

PAST PRESIDENT (2020-21)
Susan Sienko, PhD
Shriners Children's Portland, OR

DIRECTORS AT LARGE
Paige Church, MD
Harvard Medical School
Beth Israel Deaconess Medical Center/Boston
Children's Hospital
Boston, MA

Mary Jo Cooley Hidecker, PhD, CCC-A/SLP
University of Kentucky
Lexington KY

Bernadette T. Gillick, PhD, MSPT, PT
University of Wisconsin-Madison
Madison, WI

Anna McCormick, MD, FRCPIC
Children's Hospital of Eastern Ontario (CHEO)
University of Ottawa
Ottawa, Ontario

Nancy Murphy, MD
University of Utah Health Sciences Center
Salt Lake City, UT

Verónica Schiariti, MD MHSc PhD
Division of Medical Sciences, University of Victoria
Victoria, BC

Benjamin J. Shore MD MPH FRCSC
Harvard Medical School
Boston Children's Hospital
Boston, MA

Sruthi P. Thomas, MD, PhD
Baylor College of Medicine
Texas Children's Hospital
Houston, TX

555 East Wells Street, Suite 1100, Milwaukee, WI 53202
info@aacpdm.org | +1 (414) 918-3014 | www.aacpdm.org

Meeting at a Glance

SUNDAY, SEPTEMBER 10, 2023

8:30 AM – 12:00 PM CT	AACPDM Board & Committee Meetings
8:00 AM – 12:00 PM CT	Pre-Conference Sessions PC1: Transforming Your Early-Stage Research Program into an Established One (TICKET)
8:00 AM – 12:00 PM CT	PC2: Learning to Read and Interpret Gait Lab Kinematics and Kinetics: Testing Your Skills (TICKET)
8:00 AM – 5:15 PM CT	PC3: A Global Perspective on Technology Use in Rehabilitation (TICKET)
12:00 PM – 1:00 PM CT	Product Theater
1:00 PM – 5:00 PM CT	PC4: The Value of Lived Experience: Partnering with Patients & Families in Research, QI, Education, & Health (TICKET)
1:00 PM – 5:00 PM CT	PC5: Early Orthotic Management for Standing and Mobility in Children with Movement Limitations: Empowering Families (TICKET)
1:00 PM – 5:30 PM CT	PC6: Spine Deformity in Cerebral Palsy: A Comprehensive Approach (TICKET)
1:00 PM – 5:00 PM CT	PC7: Initiating a Research Program Focused on Cerebral Palsy or Other Child-Onset Developmental Disabilities (TICKET)
1:00 PM – 5:00 PM CT	Board of Directors Meeting
6:00 PM – 8:00 PM CT	Welcome Reception (TICKET)

MONDAY, SEPTEMBER 11, 2023

7:00 AM – 8:00 AM CT	Continental Breakfast
8:00 AM – 9:30 AM CT	General Session • Opening Address • Gayle G. Arnold Lecture • Presidential Guest Lecture
9:30 AM – 9:45 AM CT	Coffee Break
9:45 AM – 10:45 AM CT	Morning Seminars 1-12
11:00 AM – 12:30 PM CT	Free Paper Sessions A-D A: Gait B: Lifespan C: Neuropathology/Pathophysiology D: Basic Science/Genetics
12:30 PM – 1:30 PM CT	Product Theater
12:45 PM – 2:00 PM CT	Poster Hall
2:00 PM – 3:30 PM CT	General Session • Early Detection Panel
3:30 PM – 4:00 PM CT	Coffee Break
4:00 PM – 6:00 PM CT	Mini Symposia 1-13

TUESDAY, SEPTEMBER 12, 2023

7:00 AM – 8:00 AM CT	Continental Breakfast
8:00 AM – 9:00 AM CT	Morning Seminars 13-25
9:00 AM – 9:30 AM CT	Coffee Break
9:30 AM – 11:30 AM CT	General Session • Duncan Wyeth Award • Gayle G. Arnold Award • Mac Keith Press Basic Science Lecture • Mentorship Award • Lifetime Achievement Award • Corbett Ryan Award
12:00 PM – 1:00 PM CT	Product Theater
1:30 PM – 3:15 PM CT	Free Paper Sessions E-H E: Early Detection and Diagnosis F: Rehab/Participation G: Tone Management/Epidemiology H: Medical Complexity/Pain/Nutrition
3:30 PM – 4:00 PM CT	Coffee Break
4:00 PM – 6:00 PM CT	Mini Symposia 14-26
7:00 PM – 11:59 PM CT	Networking Dinner
WEDNESDAY, SEPTEMBER 13, 2023	
7:00 AM – 8:00 AM CT	Continental Breakfast
8:00 AM – 9:00 AM CT	Morning Seminars 26-37
9:00 AM – 9:30 AM CT	Coffee Break
9:00 AM – 9:30 AM CT	International Affairs Committee Meet and Greet
9:30 AM – 11:15 AM CT	Free Paper Sessions I-L I: Early Detection and Intervention J: Orthopedics K: Health Service L: Upper Extremity/ Hand
11:30 AM – 12:30 PM CT	Product Theater
12:45 PM – 1:45 PM CT	General Session • Chambers Family Lifespan Lecture • Closing Remarks • 2024 Committee Introduction
2:00 PM – 4:00 PM CT	Mini Symposia 27-39
2:00 PM – 6:00 PM CT	Board of Directors Meeting

Table of Contents

Meeting at a Glance	3
2022-2023 AACPDM Board of Directors	5
2023 Scientific Program Committee	5
AACPDM Presidential History	6
The Chicago Marriott Magnificent Mile Floor Plans	7
General Meeting Information	9
2023 Scientific Program Overview	14
Program and Events	15
Sunday, September 10, 2023	15
Monday, September 11, 2023	16
Tuesday, September 12, 2023	24
Wednesday, September 13, 2023	32
Exhibit Hall	40



American Academy for Cerebral Palsy and Developmental Medicine

AACPDM Office

555 E Wells Street, Suite 1100
Milwaukee, WI 53202
Tel: 1.414.918.3014
Fax: 1.414.276.2146
Email: info@aacpdm.org
Website: www.aacpdm.org

Office Staff

Tamara Wagester – Executive Director
Sarah Shier – Senior Meetings Manager
Mckenzie Morgan – Meetings Manager
Amanda Prendergast – Communications Manager
Claire Lofald – Membership & Administrative Coordinator

Future Annual Meetings

78TH ANNUAL MEETING

October 23-26, 2024
Quebec City Convention Centre
Quebec City, Canada

79TH ANNUAL MEETING

October 15-18, 2025
New Orleans Marriott
New Orleans, Louisiana

2022-2023 AACPDM Board of Directors

Lesley Pritchard, PT, PhD – President
 M. Wade Shrader, MD – First Vice President
 Laurie Glader, MD – Second Vice President
 Joline Brandenburg, MD – Treasurer
 Golda Milo-Manson, MHSc, MD, FRCPC – Secretary
 Tom F. Novacheck, MD – Past President
 Susan Sienko, PhD – Past President
 Paige Church, MD – Director
 Mary Jo Cooley Hidecker, PhD, CCC-A/SLP – Director
 Nancy Murphy, MD – Director
 Benjamin J. Shore, MD, MPH, FRCSC – Director
 Bernadette T. Gillick, PhD, MSPT, PT – Director
 Anna McCormick, MD, FRCP(C) – Director
 Verónica Schiariti, MD, MHSc, PhD – Director
 Sruthi P. Thomas, MD, PhD – Director

Ex-Officio Board Members

William L. Oppenheim, MD – Historian
 Bernard Dan, MD, PhD – Editor, DMCN
 Tamara Wagester – Executive Director

2023 Scientific Program Committee

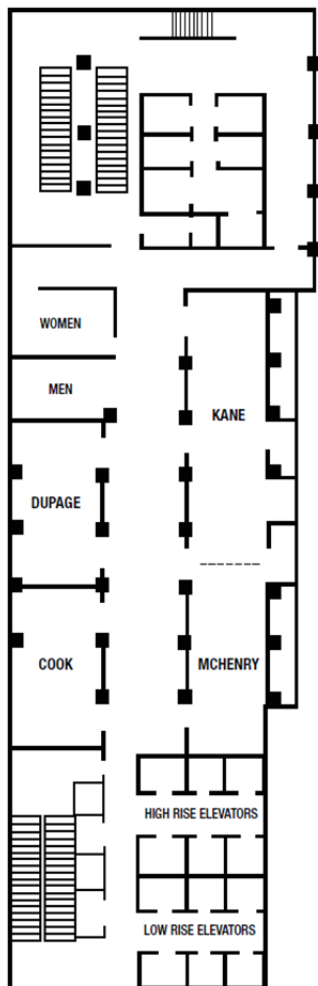
M. Wade Shrader, MD
 Theresa Moulton, PT, DPT, PhD
 Bhooma Aravamuthan, MD
 Laurie Glader, MD
 Sruthi Thomas, MD, PhD
 Vedant Kulkarni, MD
 Desiree Maltais, PT, PhD
 Brittany Hornby, DPT
 Kelli Chaviano, DO
 Christos Papdelis, PhD
 Heidi Haapala, MD
 Pooya Hosseinzadeh, MD
 Matt Halanski, MD
 Nancy Lennon, DPT, MS, PT
 Eric Chin, MD
 Lauren Jantzie, PhD
 Diana Cejas, MD, MPH
 Siddharth Srivastava
 Sam Nemanich, PhD
 Larissa Pavone, MD
 Karen Harpster, OT, PhD
 Raye-Ann DeRegnier, MD
 Amena Fine, MD, PhD
 Helen Long, PhD, CCC-SL

AACPDM Presidential History

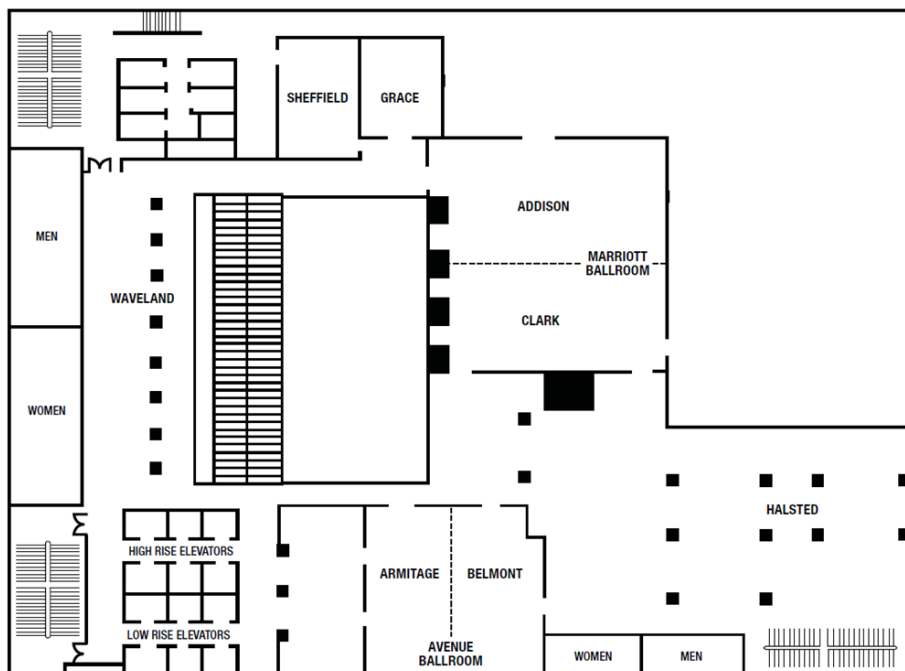
Winthrop Phelps, MD	1948	Alfred L. Scherzer, MD	1986
George G. Deaver, MD	1949	Robert P. Christopher, MD	1987
Earl R. Carlson, MD	1950	Leon Root, MD	1988
Bronson Crothers, MD	1951	Alfred Healy, MD	1989
Leslie B. Hohman, MD	1952	Gayle G. Arnold, MD	1990
Arnold Gesell, MD	1953	James R. Gage, MD	1991
Meyer A. Perlstein, MD	1954	John F. McLaughlin, MD	1992
Lenox D. Baker, MD	1955	Michael A. Alexander, MD	1993
Margaret H. Jones Kanaar, MD	1956	Helen M. Horstmann, MD	1994
Nicholson J. Eastman, MD	1957	Charlene Butler, EdD	1995
William T. Green, MD	1958	Robert K. Rosenthal, MD	1996
Alvin J. Ingram, MD	1959	Peter L. Rosenbaum, MD	1997/1998
Raymond R. Rembolt, MD	1960	Dennis C. Harper, PhD	1999
G.W.R. Eggers, MD	1961	John F. Mantovani, MD	2000
Jessie Wright, MD	1962	Michael D. Sussman, MD	2001/2002
Russell Meyers, MD	1963	James A. Blackman, MD	2003
Eric Denhoff, MD	1964	Robert W. Armstrong, MD	2004
Chester A. Swinyard, MD	1965	Luciano S. Dias, MD	2005
Samuel B. Thompson, MD	1966	Barry S. Russman, MD	2006
Sedgwick Mead, MD	1967	William L. Oppenheim, MD	2007
William Berenberg, MD	1968	Diane L. Damiano, PhD PT	2008
William J. Hillman, MD	1969	Hank G. Chambers, MD	2009
Harriet E. Gillette, MD	1970	Deborah J. Gaebler-Spira, MD	2010
Henry H. Banks, MD	1971	Scott A. Hoffinger, MD	2011
Lawrence T. Taft, MD	1972	Joseph P. Dutkowsky, MD	2012
Robert L. Samilson, MD	1973	Maureen E. O'Donnell, MD MSc FRCP (C)	2013
Elliott D. O'Reilly, MD	1974	Richard D. Stevenson, MD	2014
Hans U. Zellweger, MD	1975	Darcy Fehlings, MD MSc FRCP (C)	2015
Eugene E. Bleck, MD	1976	Eileen Fowler, PhD PT	2016
Leon Greenspan, MD	1977	Unni Narayanan, MBBS MSc FRCP (C)	2017
Gerald Solomons, MD	1978	Sarah Winter, MD	2018
Hyman H. Soboloff, MD	1979	Jilda Vargus-Adams, MD, MPH	2019
Leonard F. Bender, MD	1980	Mauricio Delgado, MD	2020
Fred P. Sage, MD	1981	Susan Sienko, PhD	2021
Paul H. Pearson, MD	1982	Tom F. Novacheck, MD	2022
Harold B. Levy, MD	1983	Lesley E. Pritchard, PhD, PT	2023
David H. Sutherland, MD	1984	M. Wade Shrader, MD	2024
Robert V. Groover, MD	1985	Laurie Glader, MD	2025

The Chicago Marriott Magnificent Mile Floor Plans

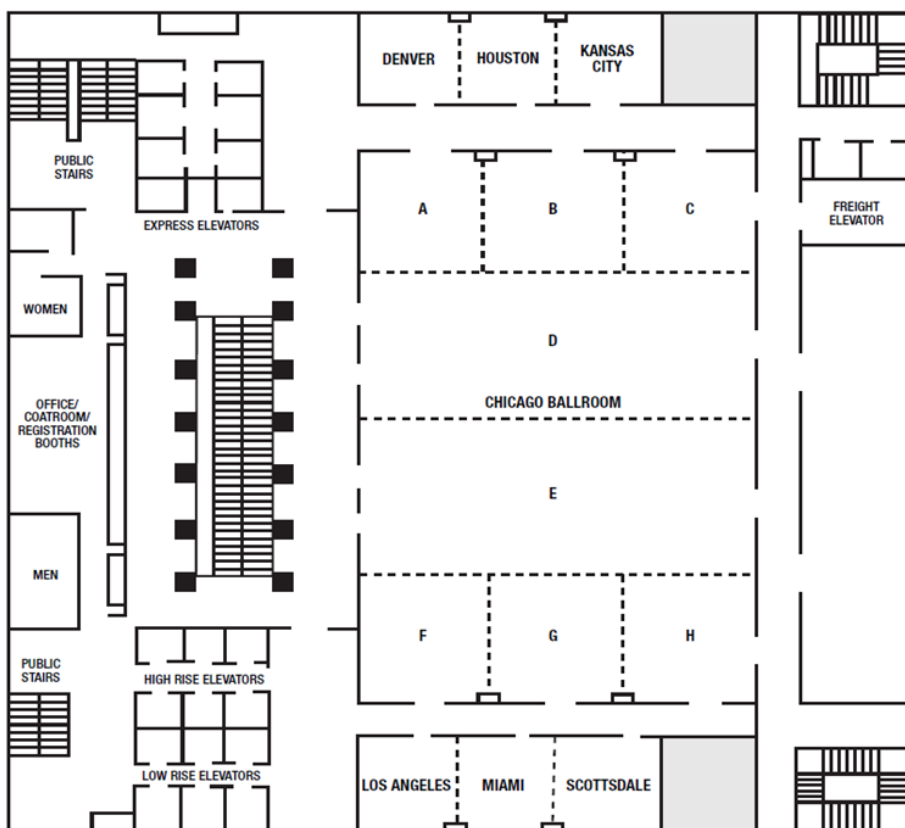
3RD FLOOR DIAGRAM



4TH FLOOR DIAGRAM

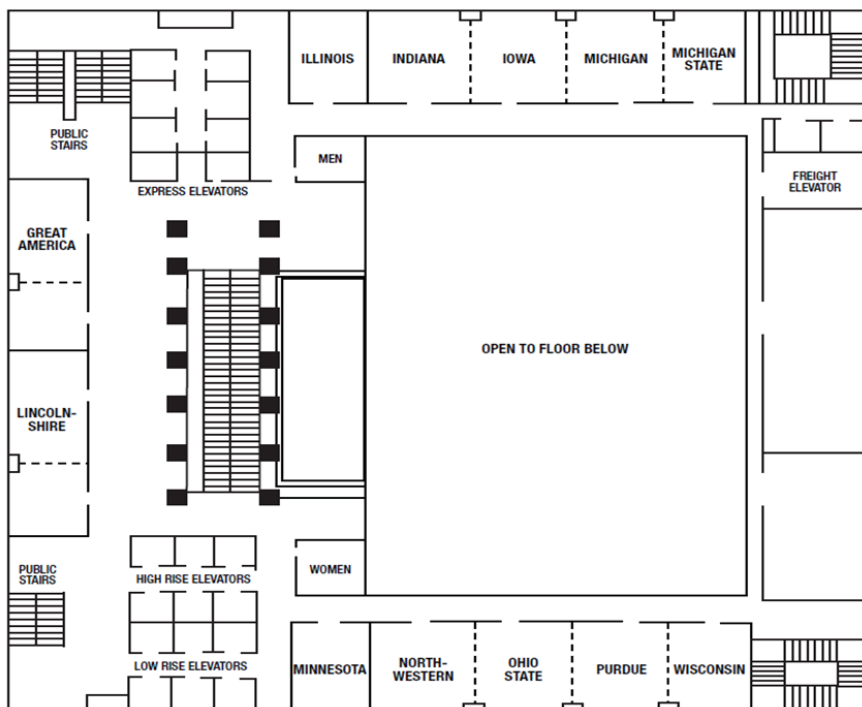


5TH FLOOR DIAGRAM

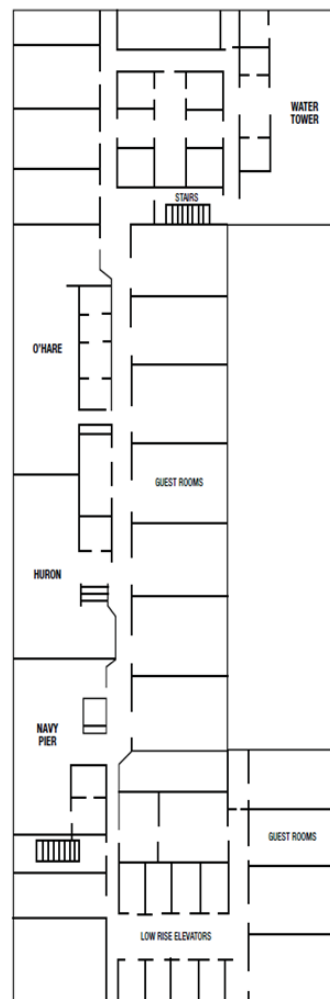


The Chicago Marriott Magnificent Mile Floor Plans

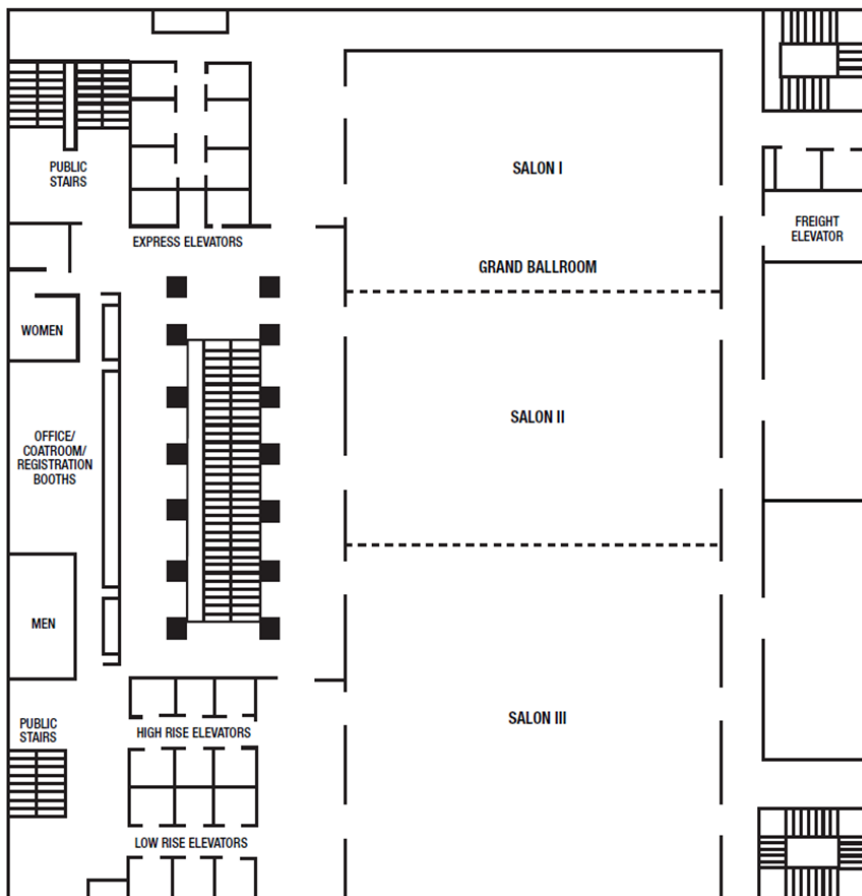
6TH FLOOR DIAGRAM



10TH FLOOR DIAGRAM



7TH FLOOR DIAGRAM



Purpose

The educational program of the American Academy for Cerebral Palsy and Developmental Medicine (AAPDM) is designed to provide targeted opportunities for dissemination of information in the basic sciences, prevention, diagnosis, treatment, and technical advances as applied to persons with childhood-onset disabilities. The program provides a forum for discussion of scientific developments and clinical advances in the care of people with these conditions. By presenting forums which foster interdisciplinary communication and interchange among all allied health care professionals concerned with individuals with cerebral palsy and neurodevelopmental disorders, this program's purpose is to ensure that the qualified personnel have the skills and knowledge derived from practices that have been determined through research and experience to be successful in serving children with disabilities. The purpose is also to encourage teambuilding within organizations and institutions, encourage multicenter studies, develop information for parents, and find a consensus on the optimal care of various conditions.

Objectives

To disseminate information on new developments in applied and translational sciences, prevention, diagnosis, treatment, and technology for individuals with cerebral palsy and other childhood onset disabilities. Specifically:

- Participants will increase awareness of new and emerging treatments for individuals with cerebral palsy and other developmental disabilities.
- Participants will be able to identify new modalities for the diagnosis of cerebral palsy and developmental disabilities.
- Participants will increase interprofessional collaboration to help coordinate and improve services across the continuum of care for individuals with cerebral palsy and developmental disabilities across the lifespan.

Target Audience

All health care professionals, clinicians, researchers and health administrators who are concerned with the care of patients with cerebral palsy and other childhood-onset disabilities, including: developmental and other pediatricians, neurologists, physiatrists, orthopedic and neuro-surgeons, physical and occupational therapists, speech-language pathologists, orthotists, dieticians, rehabilitation engineers, kinesiologists, nurses, psychologists, special education teachers and educators. Note: All levels of skill will be addressed.

AACPDM Vision

To advance the health and well-being of all individuals with cerebral palsy and other childhood-onset disabilities.

AACPDM Mission

Empowering and supporting a collaborative multidisciplinary community that

- a. provides accessible and robust scientific education for health professionals and researchers
- b. fosters innovative research as well as its dissemination and implementation
- c. advocates for equitable access to evidence based and patient centered care

AACPDM Member Benefits

How can you benefit from membership in the American Academy for Cerebral Palsy and Developmental Medicine?

Annual Meeting

An international forum for the dissemination and exchange of new knowledge, ideas and educational information between participants from all disciplines.

Each year, the Academy offers International Scholarships and Student Scholarships to members to assist with the cost of attending the Annual Meeting. Financial support for the creation of new international meetings that are related to cerebral palsy and developmental medicine is also available through the Development Grant.

Advisor Support Program

The AACPDM Membership Committee launched an Advisor Support Program to match veteran AACPDM members with new members to ensure they get everything they can out of their membership. Advisor areas include networking, committee involvement, research and grants, international experience and more!

eCourses

The AACPDM Education Committee launched AACPDM eCourses which are 3-4 week online, self-paced educational opportunities to earn continuing education credits (CEUs).

Networking

Membership in AACPDM facilitates making contacts with medical professionals and researchers with similar interests. This diverse group of professionals is bound together by a unified interest in improving the lives of people with cerebral palsy and developmental disabilities.

Publications

Developmental Medicine and Child Neurology (DMCN) is the official journal of the AACPDM. This peer reviewed journal is recognized internationally as the leader in the field. Fellow Members receive a FREE subscription to DMCN, or they may choose to select from a list of Clinics in Developmental Medicine series books in place of the DMCN Journal.

AACPDM creates a quarterly newsletter and periodic broadcast emails about various events and activities in the industry. Members assist in developing informational materials to keep the public informed about advances in treating cerebral palsy and other developmental disabilities.

Research

AACPDM offers the opportunity for members to apply for a Research Planning Grant. The purpose of this grant is to provide financial support to bring together investigators from geographically disparate locations, obtain statistical consultation and develop a multi-center research study plan. The goal is to provide the forum and initial planning to develop a successful grant submission for full funding through some larger agency (e.g., NIH, UCP, NIDRR, CDC, CIHR etc). The grant should focus on an important clinical question relevant to the membership of AACPDM and the involvement of a multidisciplinary team is expected.

Website

Members can visit the Members Only section of the AACPDM website for a wide variety of information not available to non-members including Sage Award Videos, membership contact information and other educational opportunities.

Committees

The heart of the Academy is our committees. These committees offer networking and opportunities to explore areas of deep interest with a wide range of professionals from the membership.

- Adapted Sports and Recreation
- Advocacy
- Awards
- Communications
- Complex Care
- Education
- International Affairs
- Lifespan Care
- Membership
- Nominating
- Publications
- Research
- Scientific Program

Councils

The AACPDM offers an opportunity to participate in a Committee or a Council. Councils are similar to Committees, but the terms of service, objectives, and reporting structures can differ based on the unique nature of the Council Charge.

- Community Council
- Care Pathways Council

THANK YOU TO OUR COMMITTEES

COMMITTEE	CHAIR
Adapted Sports & Recreation	Marianne A. Mousigian, MD
Advocacy	Rishi K. Agrawal, MD, MPH
Awards	Desiree B. Maltais, PT, PhD
Communications	Brittany D. Hornby, DPT
Complex Care	Kilby Mann, MD
Education	Kelli N. Chaviano, DO
International Affairs	Antigone S. Papavasiliou, MD
Lifespan Care	Heidi J. Haapala, MD
Membership	Michael T. Healy, MD
Publications	Unni G. Narayanan, MBBS, MSc, FRCS(C)
Research	Christos Papadelis, PhD
Nominating	Tom F. Novacheck, MD
Scientific Program	Bhooma Aravamuthan, MD, DPhil and Theresa Sukal Moulton, PT, DPT, PhD
Community Council	Angela Harris
Care Pathways Council	Stacy Miller BScPT, MRSc

TREASURER'S REPORT

Joline Brandenburg, MD - Treasurer

QUESTIONS FROM MEMBERS

AACPDM's annual meeting of members is typically held during the Annual Meeting. The Annual Meeting consists of scientific sessions and at least one Business Session. We look forward to seeing you soon.

American Academy
for Cerebral Palsy and
Developmental Medicine



Registration

Annual Meeting registration will be open online through September 1, 2023.

E-Poster

An E-Poster is an electronic version of the traditional paper poster in PowerPoint format, and is displayed on a monitor. In addition to traditional paper posters on bulletin boards, Scientific, Demonstration and Clinical Observation/Single Case Study Poster Presenters were also required to submit their poster as an E-Poster. There will be computer kiosks throughout the Chicago Marriott Magnificent Mile dedicated to E-Posters. Thank you to all the Poster Presenters who took on the extra work to participate in the Poster Preview and/or to submit an E-Poster!

No Smoking

Smoking is prohibited at all Annual Meeting sessions and events.

Attire

Attire for the educational sessions of the meeting is business casual. Please bring a jacket or sweater, as room temperatures may vary.

Camera/Recording Policy

It is the policy of AACPDm that no cameras are permitted in the meeting sessions, exhibit hall, or poster sessions. Please refrain from taking any photos in those locations. Audio or videotaping is strictly prohibited.

FDA Disclaimer

Some medical devices or pharmaceuticals not cleared by the FDA or cleared by the FDA for a specific use only may be used "off-label" (i.e., a use not described on the product's label) if, in the judgment of the treating physician, such use is medically indicated to treat a patient's condition. "Off label" uses of a device or pharmaceutical may be described in AACPDm educational programs or publications so long as the lack of FDA clearance for such uses is also disclosed. Results from scientific studies known to the author or presenter relating to the described intended use should be discussed, if so doing will not adversely affect the study or violate some other regulatory requirement. Some drugs or medical devices described or demonstrated in Academy educational materials or programs have not been cleared by the FDA or have been cleared by the FDA for specific use only. The FDA has stated that it is the responsibility of the physician to determine the FDA clearance status of each drug or device he or she wishes to use in practice.

Americans with Disabilities Act

The AACPDm wishes to ensure that no individual with a disability is excluded, denied services, or otherwise treated differently than other individuals because of the absence of auxiliary aides and services. If you need any auxiliary aids or services identified in the Americans with Disabilities Act please notify AACPDm at least 14 working days prior to the program to allow time to acquire the support needed.

SESSION EVALUATIONS

We need your feedback! As a dedicated learner during the AACPDm 77th Annual Meeting we truly value your feedback on the individual sessions, general sessions as well as the overall meeting experience. The future leadership of the AACPDm uses this information to improve on the future educational offerings and to make your experience the most productive and realistic in bringing back practical information to your practice.

Please take a moment to provide your feedback on the AACPDm 77th Annual Meeting in the following ways:

- The Annual Meeting website will include access to the online survey tool to complete various session evaluations.
- Participants will be asked to provide input on the educational program of the AACPDm 77th Annual Meeting through the online CME / CEU Claim System when claiming credit for participation.

Insurance/Liabilities and Disclaimer

The AACPDm will not be held responsible for injuries or for loss or damage to property incurred by participants or guests at the Annual Meeting, including those participating in social and fitness events. Participants and guests are encouraged to take out insurance to cover loss incurred in the event of cancellation, medical expenses, or damage to or loss of personal effects when traveling outside of their own country. The AACPDm cannot be held liable for any hindrance or disruption of Annual Meeting proceedings arising from natural, political, social or economic events, or other unforeseen incidents beyond its control. Registration of a participant implies acceptance of this condition. The material presented at this continuing medical education activity is made available for education purposes only. The material is not intended to represent the only, nor necessarily the best, methods or procedures appropriate for the medical situations discussed, but rather is intended to present an approach, view, statement, or opinion of the faculty that may be helpful to others who face similar situations.

Disclosure

The presenting authors on the Free Papers and Posters are underlined. All corresponding authors were responsible for querying the co-authors regarding the disclosure of their work. The AACPDM does not view the existence of these disclosed interests or commitments as necessarily implying bias or decreasing the value of the author's participation in the course. To follow ACCME guidelines the Academy has identified the options to disclose as follows:

- a. Research or institutional support has been received
- b. Miscellaneous, non-income support (e.g., equipment or services), commercially derived honoraria, or other non-research related funding (e.g., paid travel) has been received
- c. Royalties have been received
- d. Stock or stock options held
- e. Consultant or employee
- f. Received nothing of value
- g. Did not respond or unable to contact

One or more of these letters appears by each author's name indicating their disclosure. Please see the Disclosure Index at the back of the program.



2023 Scientific Program Overview

This year's program was developed from a submission total of 647 abstracts. All electronically submitted abstracts were independently rated by the multidisciplinary scientific program committee of 24 members. The committee met in March 2023 to review the abstracts and finalize the program (e.g. Scientific poster or free paper, demonstration poster, clinical observation or single case study posters). Scientific posters and free papers were rated (masked to authors) on research question/objectives, design, methodology, conclusions and relative impact, relevance and importance to the care and treatment of children with childhood onset disabilities. Mini Symposia were rated (unmasked) on course objectives, content, presenters and level of impact, relevance and importance to conference attendees and the AACPDm membership at large. The feedback from the previous year's evaluations are utilized in the process of creating the program with the aim of better meeting the needs of meeting attendees.

The 2023 program includes:

- 7 Pre-Conference Sessions
- 37 Morning Seminars
- 39 Mini Symposia
- 120 Scientific Papers
- 190 Scientific Posters
- 45 Demonstration Posters
- 23 Clinical Observation/Single Case Study

SCIENTIFIC REVIEW PROCESS

- Blinded abstracts submitted electronically
- Abstracts are scored independently by the program committee with scores submitted electronically and then tallied/averaged
- Highest scored abstracts are selected
- Program Committee meets in March to make final decisions re: scientific program planning and to ensure that the program is balanced in content.

Free Papers and Posters are rated on:

- Research Question/Objectives
- Research Design, Methodology
- Impact, Relevance & Importance

Mini Symposia are rated on:

- Course Objective
- Content/Presenters
- Impact, Relevance & Importance

Morning Seminars are rated on:

- Course Objective
- Content/Presenters
- Impact, Relevance & Importance

Scholarships

The American Academy for Cerebral Palsy and Developmental Medicine Scholarship Program supports the mission of the AACPDm to improve the health and general status of children and adults with cerebral palsy, developmental disorders and childhood acquired disabilities. The Academy seeks international applicants who are highly motivated, currently in clinical practice, and who are in a position which will enable them to disseminate knowledge acquired at the meeting to others in their home country once they return. Particular emphasis is placed on assisting those from areas with under supported medical systems and limited financial resources. The AACPDm also awards scholarships to students each year so that they may attend the Annual Meeting.

Grant Awards

A key mission of the Academy is to promote excellence in research for the benefit of persons with cerebral palsy and childhood-onset disabilities. One way in which the Academy promotes research is through the annual Research Grants. Historically, the AACPDm has partnered with the Pedal with Pete Foundation, the Center for Progress, and the Cerebral Palsy Alliance Research Foundation to fund multiple grants, up to \$25,000 USD each! Areas of research should focus on topics related to cerebral palsy.

Research grant funding supports high-quality, clinical research projects/programs. The award may be used to fund planning for a project or to complete a small research project of high impact in any area relevant to the AACPDm's mission. The successful applicant will have a solid track record in childhood-onset disability research.

The Principal Investigator on the grant must be an AACPDm member in good standing. Only one grant application per member will be considered in a given budget year.

8:30 AM – 12:00 PM CT

AACPDM Board & Committee Meetings

Preconference Sessions

8:00 AM – 12:00 PM CT

PC1: Transforming Your Early-Stage Research Program into an Established One

Christopher M. Modlesky, PhD, Kathleen Friel, PhD, Dalina Delfing, MS, Kristie F. Bjornson, PT, PhD, Michael C. Kruer, MD, Stacey Dusing, PT, PhD, Corinna Bauer, PhD

Member: \$100
Non-Member: \$125
Student: \$75

8:00 AM – 12:00 PM CT

PC2: Learning to Read and Interpret Gait Lab Kinematics and Kinetics: Testing Your Skills

Ross Chafetz PT, DPT, PhD, MPH, Kirsten Tulchin-Francis PhD, Sylvia Ounpuu MSc, Kristan Pierz MD, James McCarthy MD, MHCM, Freeman Miller MD

Member: \$100
Non-Member: \$125
Student: \$75

8:00 AM – 5:15 PM CT

PC3: A Global Perspective on Technology Use in Rehabilitation

Anna McCormick MD FRCP, Sylvain Brochard MD, PhD, Sunil Agrawal MS, PhD, Julius Dewald PT, PhD, John Andersen MD, Diane Damiano PhD, FAPTA, Hana Alazem MD, Sally Evans MD, Richard Lieber PhD, MBA, Mauri Beer MD MPA, Naomi Gefen MPA, MsOT, Danielle Levac BSc, PT, MSc, PhD, Jessica Rose PhD, Vedant Kulkarni MD, Heather Feldner BS, MPT, PhD, James Sulzer PhD, Michael Pearlmutter BSc, BMA, Ralph Nitkin PhD, Maria Nurminskaya PhD

Member: \$175
Non-Member: \$200
Student: \$75

1:00 PM – 5:00 PM CT

PC4: The Value of Lived Experience: Partnering with Patients & Families in Research, QI, Education, & Health

Kristina Malik MD, Cristina Sarmiento MD, Brenda Agnew BA

Member: \$100
Non-Member: \$125
Student: \$75

1:00 PM – 5:00 PM CT

PC5: Early Orthotic Management for Standing and Mobility in Children with Movement Limitations: Empowering Families

Mary Rahlin PT, DHS, Board-Certified Clinical Specialist in Pediatric Physical Therapy, Kristie Bjornson PT, PhD, MS, Kyrä Kane BscPT, MSc, PhD

Member: \$100
Non-Member: \$125
Student: \$75

1:00 PM – 5:30 PM CT

PC6: Spine Deformity in Cerebral Palsy: A Comprehensive Approach

Jason Howard MD, Freeman Miller MD, Suken Shah MD, Hiroko Matsumoto PhD, Jane Berry OT, MSc Paediatric OT, Ron El-Hawary MD, Christina Hardesty MD, Amit Jain MD, Laura Owens MD, Michelle Janas MSN RN, Firoz Miyanji MD, FRCS(C), Benjamin Shrader BA

Member: \$100
Non-Member: \$125
Student: \$75

1:00 PM – 5:00 PM CT

PC7: Initiating a Research Program Focused on Cerebral Palsy or Other Child-Onset Developmental Disabilities

Disabilities

Christos Papadelis PhD, Christopher Modlesky PhD, Paul Gross, BA, Bhooma Aravamuthan, MD, DPhil, Jill Heathcock, PT, PhD, Maria Nurminskaya, PhD, Michael Pearlmutter, MBA

Member: \$100
Non-Member: \$125
Student: \$75

12:00 PM – 1:00 PM CT

Product Theater

First Come, first served. Lunch provided.

1:00 PM – 5:00 PM CT

Board of Directors Meeting

6:00 PM – 8:00 PM CT

Welcome Reception

Program & Events — Monday, September 11, 2023

7:00 AM - 8:00 AM CT

Continental Breakfast

8:00 AM - 9:30 AM CT

General Session

Opening Address

Gayle G. Arnold Lecture

Presidential Guest Lecture

9:30 AM - 9:45 AM CT

Coffee Break

9:45 AM - 10:45 AM CT

Morning Seminars 1-12

9:45 AM - 10:45 AM CT

MORNSEM01: EMPOWERING DIVERSE COMMUNITIES: IMPLEMENTATION OF EARLY DETECTION OF CEREBRAL PALSY WITHIN THE UNITED CEREBRAL PALSY AFFILIATE NETWORK

Valerie Pieraccini MS OTR, Nathalie Maitre MD, PhD, Mark Gormley MD, Rachel Byrne BS

Learning Objectives:

1. Understand the concept, the design and the barriers and solutions in the execution of implementing early detection in diverse community settings
2. Identify measurable, inclusive and equitable goals that can be generalized for early detection in similar organizations
3. Understand unique implementation science approaches to drive success in diverse community-based settings.
4. Identify replicable models in the community similar to the UCP's affiliate network that can be scaled up and adapted.

9:45 AM - 10:45 AM CT

MORNSEM02: JOURNEY - A VIRTUAL SUPPORT GROUP PROMOTING OPTIMAL MENTAL HEALTH AND WELLNESS FOR CAREGIVERS OF CHILDREN AND YOUNG ADULTS WITH CEREBRAL PALSY

Lisa Zimmermann MSW, Margaret Hoffman MSW

Learning Objectives:

1. Explain the research on CP caregivers' experiences of grieving and adjustment.
2. Discuss the importance of peer support in promoting positive mental health for caregivers.
3. Describe the main components of a virtual caregiver support program.
4. Identify early learnings about program outcomes and caregiver feedback.

9:45 AM - 10:45 AM CT

MORNSEM03: IMPROVING CARE FOR YOUTH WITH CEREBRAL PALSY AFTER ORTHOPEDIC SURGERY UTILIZING TELEHEALTH

Nancy Lennon DPT, Elizabeth Koczur MPT

Learning Objectives:

1. Identify barriers to and solutions for incorporating telehealth physical therapy services into clinical practice.
2. Describe the advantages of delivering physical therapy via telehealth.
3. Recognize the importance of educating stakeholders during implementation of telehealth services.
4. Appreciate how expanding access to care provides relief and eases stress for families and caregivers.

9:45 AM - 10:45 AM CT

MORNSEM04: THE WINDS OF CHANGE IN REHABILITATION: MEASURING ENGAGEMENT AS A KEY COMPONENT TO PARTICIPATION

Tonya Rich PhD, OTR/L, Claire Shrader MS, OTR/L, Brittany Virgil DPT

Learning Objectives:

1. Define the concept of engagement across multiple rehabilitation disciplines
2. Discuss the association between engagement in rehabilitation and outcome achievement
3. Identify engagement outcome measures across the lifespan
4. Apply understanding of engagement concepts to their own clinical or research practice

9:45 AM - 10:45 AM CT

MORNSEM05: EPIC-CP: DEVELOPING EQUITY AND INTEGRATED CARE PATHWAYS TO ADDRESS HEALTH INEQUITIES OF CHILDREN AND YOUNG PEOPLE WITH CEREBRAL PALSY AND THEIR FAMILIES.

Susan Woolfenden PhD, Katarina Ostojic PhD, Simon Paget MBBS

Learning Objectives:

1. Upon completion participants will be able to describe the health inequities experienced by children and young people with cerebral palsy (CP) and their families.
2. Upon completion participants will be able to summarise emerging evidence for equity and integrated care pathways to systematically identify and address these health inequities in the healthcare setting.
3. Upon completion participants will understand how to use co-design with research advisors with a lived experience of CP to develop equity and integrated care pathways.
4. Upon completion participants will understand the common barriers and enablers to identify the unmet social needs of families and have strategies to address these.

9:45 AM – 10:45 AM CT

MORNSEM06: CONSIDERATIONS FOR EFFECTIVE SCHOOL READINESS ASSESSMENT OF CHILDREN WITH CEREBRAL PALSY

Stina Oftedal PhD, B Hlth Sc (Diet), Samudragupta Bora PhD, Leanne Sakzewski PhD, Bachelor Occupational Therapy, Roslyn Boyd PhD

Learning Objectives:

1. Describe the conceptual framework of School Readiness and associated risk and protective factors.
2. Review the current state of the evidence for School Readiness in children with cerebral palsy who are at risk of neurodevelopmental delay, and the role of early intervention.
3. Propose a toolbox for School Readiness assessment of children with cerebral palsy based on evidence mapping and systematic review of instruments and highlight challenges in current protocols.
4. Apply the knowledge presented to develop practical solutions for effective School Readiness assessment of children with cerebral palsy to optimize their transition to school using interactive case studies.

9:45 AM – 10:45 AM CT

MORNSEM07: SLEEP PROBLEMS IN THE CHILD WITH PHYSICAL DISABILITIES

Golda Milo-Manson MD, MHSc, FRCPC

Learning Objectives:

1. Upon completion participants will gain knowledge of current evidence related to the management of sleep disorders in children/youth with neurodevelopmental and specifically physical disabilities
2. Upon completion the participant will understand the role of medication in the treatment of sleep disorders in children with physical disabilities.
3. Upon completion the participant will understand when to consider the use of medication in sleep management.
4. Upon completion the participant will understand when to order a sleep study.

9:45 AM – 10:45 AM CT

MORNSEM08: EXPERIENCE-BASED CO-DESIGN - AN INNOVATIVE APPROACH TO SERVICE IMPROVEMENT FOR INDIVIDUALS WITH CHILDHOOD ONSET DISABILITIES AND THEIR FAMILIES

Jill Massey BSc/MSc, Mary Tanay PhD, Glenn Robert

Learning Objectives:

1. Describe the principles and six stages of EBCD
2. Define the benefits and challenges of using EBCD approach
3. Apply the EBCD process to an identified improvement area from their experience of working within childhood onset disabilities.
4. Create an outline plan for an EBCD project applied to their area of clinical practice.

9:45 AM – 10:45 AM CT

MORNSEM09: HEALTHCARE TRANSITIONS FOR INDIVIDUALS WITH CP- RESOURCES AND CONSIDERATIONS FROM THE PEDIATRIC AND ADULT PROVIDER PERSPECTIVE

Fabiola Reyes MD, Cherlyn Caneda MSN, Rajashree Srinivasan MBBS, Heakyung Kim MD

Learning Objectives:

1. Implement the TRAQ questionnaire and develop transitional care goals for adolescents in the process of transitioning into adult care
2. Understand how tone interventions may change based on activity and vocational goals in adulthood
3. Understand how school and psychology resources can help determine guardianship needs
4. List the recommended neurological and musculoskeletal screening recommendations in adults with CP

9:45 AM – 10:45 AM CT

MORNSEM10: NERVE TRANSFERS AND NEURECTOMIES IN CEREBRAL PALSY: PERIPHERAL SOLUTIONS TO A CENTRAL PROBLEM

Eugene Park MD, Dan Zlotolow MD, Sami Tuffaha MD, Jessica Zawrotny MS, OTR/L

Learning Objectives:

1. Describe the pathomechanism of spasticity in cerebral palsy and the mechanism behind hyperselective neurectomies.
2. Perform a comprehensive evaluation of patients with upper extremity cerebral palsy as it relates to surgical indications and planning.
3. Incorporate hyperselective neurectomies for elbow and wrist flexors, as well as forearm pronators into their repertoire of surgeries for upper extremity cerebral palsy.
4. Plan a comprehensive functional evaluation and post-operative therapy protocol for patients undergoing hyperselective neurectomies for upper extremity cerebral palsy.

9:45 AM – 10:45 AM CT

MORNSEM11: ORTHOPEDIC ASPECTS OF HEREDITARY SPASTIC PARAPARESIS: DIAGNOSIS AND TREATMENT OF LOWER LIMB DEFORMITIES

Sharon Eylon MD, Steven Bachrach MD, Michal Frankl MD, Jason Howard MD

Learning Objectives:

1. Describe the clinical features, natural history and diagnostic workup to evaluate patients with Hereditary Spastic Paraparesis (HSP), in comparison to cerebral palsy (CP)
2. Debate on the protocol of X-rays for hip migration monitoring
3. Describe the non-operative treatment options for neuromodulation – oral medications, botulinum toxin injections, bracing, assistive devices and therapies
4. Describe surgical plans for patients considering joint contractures, rotational deformities, or gait limiting pathologies.

9:45 AM – 10:45 AM CT

MORNSEM12: FROM BABY SHARKS TO MEGALODONS: A PATHWAY TO A PARTICIPATION MODEL FOR ORGANIZED SWIMMING

Juliana Libertin DPT, PCS, Kaitlin Barr DPT, Walter Guminiak AAS, Daisy Carrasco

Learning Objectives:

1. Explain how organized recreational sports improve physical fitness while promoting emotional development in children
2. Explore options to adapt swimming to meet the physical and emotional needs of children with physical disabilities
3. Evaluate and utilize community resources to implement an adaptive sports program
4. Describe steps to build an adaptive swim program and competitive swim program

11:00 AM – 12:30 PM CT

FREE PAPER SESSIONS A-D

Free Paper Session A: Gait

11:00 AM – 11:07 AM CT

A1: Absolute Reliability of the Gait Outcomes Assessment List (GOAL) Questionnaire

Jean Stout PT, MS, PhD(c), Marissa Thill MS, Meghan Munger MPH, Kathryn (Katie) Walt PT, DPT, Elizabeth Boyer PhD

11:08 AM – 11:15 AM CT

A2: Changes in Foot Posture over the Course of Childhood in Ambulatory Youth with Cerebral Palsy

Chris Church MPT, Nancy Lennon DPT, Madison Lennon BS, John Henley PhD, Thomas Shields BS, Tim Niiler PhD, Daveda Taylor DPT, Michael Shrader MD, Freeman Miller MD

11:16 AM – 11:23 AM CT

A3: Gait Kinematic Trajectories in Youth with Cerebral Palsy throughout Childhood: Influence of Age and Orthopedic Surgery

Nancy Lennon DPT, Chris Church MPT, Daniel Wagner BS, Tim Niiler PhD, John Henley PhD, Freeman Miller MD, Michael Shrader MD, Jason Howard MD

11:24 AM – 11:31 AM CT

A4: Comparing Lower Extremity Muscle Activation Patterns of Simulated Walking Using An End-Effector-Type Robot With Real-Level and Stair Walking in Children with Spastic Bilateral Cerebral Palsy

YongJin Ahn MD, Juntaek Hong MD, Dain Shim MS, Joong-on Choi MS, Dong-wook Rha PhD

11:32 AM – 11:39 AM CT

A5: Sagittal Gait Kinematics of Patients with Cerebral Palsy and Pelvic Incidence-Lumbar Lordosis Mismatch

Erikson Nichols MS, MMS, Peter Cirrincione BA, Vishnu Deep Chandran PhD, Silvia Zanini MS, Jennifer Jezequel DPT, Bridget Assip DPT, Sherry Backus DPT, Dara Jones MD, David Scher MD, Paulo Selber MD

11:45 AM – 11:52 AM CT

A6: Energy Expenditure During Ambulation in Patients With Hereditary Spastic Paraparesis And Cerebral Palsy

Robert Wimberly MD, Kelly Jeans MS, Elizabeth Bunkell BS

11:53 AM – 12:00 PM CT

A7: Predictors for Changes in Pelvic Rotation After Surgery in Ambulatory Children with Cerebral Palsy: Impact of Femoral Derotational Osteotomy

Reiko Hara PhD, Susan Rethlefsen DPT, Tishya Wren PhD, Robert Kay MD

12:01 PM – 12:08 PM CT

A8: Factor Analysis of the Gait Outcomes Assessment List's Goal Questions: A New Method for Measuring Goal Prioritization in Ambulatory Patients With Cerebral Palsy

Meghan Munger MPH, Tom Novacheck MD, Nathan Shippee PhD, Timothy Beebe PhD, Beth Virnig PhD, MPH

12:09 PM – 12:16 PM CT

A9: Gait Outcomes for Foot And Ankle Surgery In Children With Charcot-Marie-Tooth Disease: A Multisite Investigation

Sylvia Ounpuu MSc, Kristan Pierz MD, Susan Rethlefsen DPT, Jennifer Rodriguez-MacClintic PT, DPT, Gyula Acsadi MD, PhD, Tishya Wren PhD

12:17 PM – 12:24 PM CT

A10: Using The Edinburgh Visual Gait Score in the Evaluation Of Gait Outcomes Following Multi-Level Orthopaedic Surgeries For Ambulatory Children with Cerebral Palsy

Peace Amaraegbulam FWACS, Unni Narayanan MBBS, MSc, FRCSC

Free Paper Session B: Lifespan

11:00 AM – 11:07 AM CT

B1: Effectiveness of Transition to Adulthood Programs Among Adolescents with Disabilities: A Realist-Informed Mixed-Methods Systematic Review

Ahlan Zidan, David Gabay, Sarah-Eve Poirier MSc, Marie Grandisson PhD, Steve Jacob PhD, Mathieu Ouimet PhD, Francine Julien-Gauthier PhD, Sarah Martin-Roy PhD, Marie-Ève Lamontagne PhD, Chantal Desmarais, Noémi Dahan-Oliel OT, PhD

11:08 AM – 11:15 AM CT

B2: Transition To Adult Healthcare Among Children With Cerebral Palsy, Developmental Disabilities, And Typically Developing Children

Sarah Creveling MS, Mario Keko MPH, Haresh Rochani DrPh, MPH, MBBS, Joshua Vova MD, Christopher Modlesky PhD, Gavin Colquitt PhD

11:16 AM – 11:23 AM CT

B3: Growing Pains: A Qualitative Approach to Understanding the Transition of Care Needs of Young Adults with Cerebral Palsy in a Pediatric Rehabilitation Clinic

Cristina Sarmiento MD, Jordan Wyrwa DO, Chloe Glaros MPH, MSW, Brooke Dorsey Holliman PhD, Lisa Brenner PhD

Program & Events — Monday, September 11, 2023

11:24 AM – 11:31 AM CT

B4: Altered Dexterity of Adults with Cerebral Palsy is Linked with Reduced Activation of the Higher-Threshold Spinal Motoneurons
Saihari Dukkupati PhD, Sarah Walker BS, Michael Trevarrow PhD, Morgan Busboom DPT, Katie Schlieker DPT, Max Kurz PhD

11:32 AM – 11:39 AM CT

B5: Physical and Psychological Consequences of Falls in Individuals with Cerebral Palsy
Elizabeth Boyer PhD, Marissa Thill MS, Kari Pederson MSW, Sandy Tierney MSW, PhD, Nathan Wandersee AS Business Administration, Linda Krach MD

11:45 AM – 11:52 AM CT

B6: The Outcome of Onabotulinumtoxin A Injections for Painful Hips in Patients with Cerebral Palsy (Gmfcs 4 And 5)
Henry Chambers MD, Kyle Ryan MD, Reid Chambers DO

11:53 AM – 12:00 PM CT

B7: Evaluation of a Mindfulness Based Stress Reduction Intervention for Adults with Cerebral Palsy with Anxiety and/or Emotion Regulation Difficulties – A Randomised Control Trial
Hayley Smithers-Sheedy BAppSc (Sp Path), MPH, PhD, Ingrid Honan BPsych (Hons), MCLinNeuroPsych, PhD, Emma Waight BA, Katherine Swinburn BAppSc, MPH, Fiona Given BA LLB, Kate Hooke BSW, Annabel Webb MRes, Sarah McIntyre PhD, Georgina Henry BPsych (Hons)

12:01 PM – 12:08 PM CT

B8: Altered Systemic Metabolomics in Ambulatory Young Adults with Cerebral Palsy
Chad Hanaoaka BS, Raji Pichika PhD, Sudarshan Dayanidhi PT, PhD, Prakash Jayabalan MD, PhD

12:09 PM – 12:16 PM CT

B9: Longitudinal Patterns of Post-Fracture Outpatient Physical/Occupational Therapy Use and Its Association With 3-Year Mortality Among Adults With Cerebral Palsy
Rachel Gottlieb BS, Kate Panzer BAS, Daniel Whitney PhD, Daniel Whitney PhD

12:17 PM – 12:24 PM CT

B10: Factors Impacting Positive and Negative Participation of Young People with Cerebral Palsy: A Delphi Study of Consumers and Health Professionals.
Jacinta Quartermaine BS, Tanya Rose PhD, Megan Auld PhD, Leanne Johnston PhD

Free Paper Session C: Neuropathology/Pathophysiology

11:00 AM – 11:07 AM CT

C1: Efficacy of Transcranial Direct Current Stimulation for Improving Motor Function in Children with Cerebral Palsy: A Systematic Review and Meta-Analysis
Hyunjoon Kim MS, Marie Kelly MPH, Xiwen Su MS, Claudio Ferre PhD

11:08 AM – 11:15 AM CT

C2: Remote Ischemic Conditioning Enhances Bimanual Skill Learning and Corticospinal Excitability in Children with Unilateral Cerebral Palsy: A Phase II Randomized Controlled Trial
Swati Surkar PT, PhD, Shailesh Gardas PT, Mary Scott Faircloth BS, DPT, Casey Burroughs DPT, Caroline Brown BS, Katie Woosley BS, DPT, Natalie McBryde BS, Exercise Physiology, David Turnure BS, DPT, John Willson PT, PhD, Jessica Cassidy DPT, PhD, Shailesh Kantak PT, PhD

11:16 AM – 11:23 AM CT

C3: Relationship Between Mid-Level Visual Perceptual Dysfunctions and White Matter Integrity in Cerebral Visual Impairment
Marie Drottat MA, Claire Manley BS, Lotfi Merabet PhD, OD, MPH, Corinna Bauer Ph.D.

11:24 AM – 11:31 AM CT

C4: White Matter Pathways Associated with Visual Search Dysfunctions in Cerebral Visual Impairment
Claire Manley BS, Marie Drottat MA, Lotfi Merabet PhD, OD, MPH, Corinna Bauer Ph.D.

11:32 AM – 11:39 AM CT

C5: Reaching Accuracy Deficits are Related to Altered Prefrontal Cortex Activity in Children With Cerebral Palsy: A Functional Near-Infrared Spectroscopy (Fnirs) Study
Owais Khan PT, Tarkeshwar Singh PhD, Deborah Barany PhD, Christopher Modlesky PhD

11:45 AM – 11:52 AM CT

C6: Sensorimotor Cortical Oscillations of Persons with Cerebral Palsy during an Adaptive Motor Control Task are Uncharacteristic
Erica Hinton PhD, Morgan Busboom DPT, Christine Embury PhD, Tony Wilson PhD, Max Kurz PhD

11:53 AM – 12:00 PM CT

C7: Integrity of the Spinal Cord Microstructure is Connected to the Sensory Acuity of Persons with Cerebral Palsy
Max Kurz PhD, Julia Edelstein BS, Sarah Baker MA, Saihari Dukkupati PhD, Erica Hinton PhD

12:01 PM – 12:08 PM CT

C8: Adults with Down Syndrome Exhibit Altered Entrainment of the Occipital Cortical Neural Generators
Julia Edelstein BS, Erica Hinton PhD, Tony Wilson PhD, Max Kurz PhD

12:09 PM – 12:16 PM CT

C9: Bilateral Coordination Develops Throughout Childhood and Adolescence in Typically-Developing Children
Brittany Wehausen BS, Karissa Wennstrom BS, Camryn Stasulas BS, Annika Ward BS, Karin Goodfriend MD, MPT, Sheila Schindler-Ivens PhD, PT, Samuel Nemanich PhD

MONDAY

Program & Events — Monday, September 11, 2023

12:17 PM – 12:24 PM CT

C10: The We-Study; Does Botulinum Toxin a Make Walking Easier in Children with Cerebral Palsy? An Industry-Independent Double Blind Placebo-Controlled Trial

Anne Elisabeth Raftemo Medical doctor, Siri Merete Brændvik PhD, Karin Roeleveld PhD, Kjersti Ramstad PhD, Jasmina Majkic-Taisic MD, Torarin Lamvik MD, Ånen Aarli MD, Marcin Bonikowski MD PhD, Serge Colson PhD, Turid Follestad Follestad PhD, Torstein VIK MD, PhD, Guro Andersen PhD

Free Paper Session D: Basic Science/Genetics

11:00 AM – 11:07 AM CT

D1: Etiology of Cerebral Palsy in the BC Hip Surveillance Cohort
Stacey Miller BSc(PT), MRSc, Caitlyn Siu BSc, Kishore Mulpuri MBBS, MS (Ortho), MHSc (Epi), FRCSC, Ram Mishaal MD

11:08 AM – 11:15 AM CT

D2: Excessive Stiffness Promotes Fibrosis and Impairs Regeneration in Muscle Stem Cells from Children with Cerebral Palsy

Taryn Loomis, Vedant Kulkarni MD, Jon Davids MD, Marie Villalba BS, Lucas Smith PhD

11:16 AM – 11:23 AM CT

D3: Whole-Brain Functional Connectivity Profiles in the Mature Central Nervous System after Perinatal Injury: Sensitive Preclinical Biomarker Linking Motor Deficits, White Matter Injury and Cognition

Lauren Jantzie PhD, Shenandoah Robinson MD, Eric Chin MD

11:24 AM – 11:31 AM CT

D4: Selective Disruption of the Epigenome in Glutamatergic Neurons After Prenatal Hypoxia is Correlated to Persistent Neuronal Dysfunction

Ana Cristancho MD/PhD

11:32 AM – 11:39 AM CT

D5: Association of Feeding with Functional and Structural Brain Abnormalities in Infants with Hypoxic Ischemic Encephalopathy

Sabrina Shandley PhD, Yvette Johnson MD, Dave Riley MD, Madhan Bosemani MD, Jonathan NedreLOW MD, Christos Papadelis PhD

11:45 AM – 11:52 AM CT

D6: Transcription Profiling Suggests a Mechanistic Link Between Hypoxia and Muscle Contracture

Andy Domenighetti PhD, Isabel O'Malley-Krohn BS, Jake Parsons BS, Richard Lieber PhD, MBA

11:53 AM – 12:00 PM CT

D7: Does Collagen and Laminin Abundance in Muscles Reflect Spasticity in Children with Cerebral Palsy?

Kristen Reider PhD, PT, Rachel Thompson MD, Kara Shin MS, Yiran Deng, Kevin Chen BA, Shannon Wu BS, Sierra Pinal BA, Richard Bowen MD

12:01 PM – 12:08 PM CT

D8: Comprehensive Whole-Genome Sequence Annotation to Elucidate the Genetic Architecture of Cerebral Palsy

Darcy Fehlings MD FRCPC MSc, Mehdi Zarrei PhD, Maryam Oskoui MD, Richard Wintle PhD, Bank Enqchuan PhD, Neal Sondheimer MD, PhD, Michael Shevell MD, Adam Kirton MD, Edward Higginbotham MS, Carolyn Hunt BSc, MD, FRCP(C), Shannon Knights MD, Nomazulu Dlamini MBBS, MSc, PhD, Dawa Samdup FRCPC, Ronit Mesterman MD, Anna McCormick MD FRCPC, Jan Willem Gorter MD PhD, Stephen Scherer PhD, DSc, FRSC

12:09 PM – 12:16 PM CT

D9: The Quality of Phenotype Data in Genetic Studies of Cerebral Palsy

Yana Wilson, Hayley Smithers-Sheedy BAppSc (Sp Path), MPH, PhD, Shona Goldsmith PhD, Tasneem Karim MBBS, MPH, PhD, Georgina Henry BPsych (Hons), Jozef Gecz PhD, Gareth Baynam PhD, Nadia Badawi PhD, Sarah McIntyre PhD

12:17 PM – 12:24 PM CT

D10: The Role of Pathogenic Alleles and Their Potential Link to Cerebral Palsy and Secondary Health Risks

Nedeke Ntekim OMS-II, Tyler Hamby PhD, Stephanie Acord MD, Carter Butson OMS-II, WARREN MARKS MD

12:30 PM – 1:30 PM CT

Product Theater

First Come, first served. Lunch provided.

12:45 PM - 2:00 PM CT

Poster Hall

2:00 PM – 3:30 PM CT

General Session

Early Detection Panel

4:00 PM – 6:00 PM CT

Mini Symposia 1-13

4:00 PM – 6:00 PM CT

MINISYMP01: DEVELOPING A CAREER IN PEDIATRIC REHABILITATION RESEARCH

Ralph Nitkin PhD, Amy Darragh PhD, Stephanie Deluca PhD, Maria Nurminskaya PhD, Bernadette Gillick PhD

Learning Objectives:

1. List some research opportunities in developmental medicine particularly related to support of children with disabilities and their families
2. Describe some opportunities to network with other researchers and access critical research infrastructure
3. Identify NIH research opportunities, funding mechanisms, and the peer-review system
4. List the needs and opportunities to develop an independent research career

4:00 PM – 6:00 PM CT

MINISYMP02: SURVEILLANCE AND MANAGEMENT OF HIP DISPLACEMENT IN CHILDREN WITH CEREBRAL PALSY: CLINICAL AND ETHICAL DILEMMAS

Jason Howard MD, Benjamin Shore MD, MPH, FRCSC, Kishore Mulpuri MBBS, MS (Ortho), MHSc (Epi), FRCSC, Erich Rutz MD, PhD

Learning Objectives:

1. To review new thinking on the pathophysiology of hip displacement (HD) in cerebral palsy (CP)
2. To review the state of hip surveillance in CP
3. To review the long term outcomes and goals of preventative and reconstructive surgery for HD in CP
4. To discuss controversies and ethical dilemmas regarding orthopedic surgery for HD in CP

4:00 PM – 6:00 PM CT

MINISYMP03: TOP 10 ARTICLES IN DEVELOPMENTAL DISABILITIES

Nancy Murphy MD, Richard Adams MD, Garey Noritz MD

Learning Objectives:

1. Upon completion, participant will be able to describe recent publications and updates related to the care of children with CP and related disabilities.
2. Upon completion, participant will be able to describe what is known and future directions related to current topics in the care of children with CP and related disabilities.
3. Upon completion, participant will be able to critically review scientific literature and apply relevant advances to the care of children with CP and related disabilities in their local settings.
4. Upon completion, participant will be able to disseminate updates on the care of children with CP and related disorders with local stakeholders (trainees, those with lived experience, communities, others).

4:00 PM – 6:00 PM CT

MINISYMP04: THE FUTURE IS HERE: USING NON-INVASIVE BRAIN-COMPUTER INTERFACE TECHNOLOGY TO ENHANCE PARTICIPATION FOR CHILDREN WITH NEUROMOTOR DISABILITIES

Michelle Roy PT, Lesley Pritchard PT, PhD, John Andersen MD, FRCPC, Hosein Bahari MS, Jonathan Halton OT, Diane Damiano PhD, FAPTA

Learning Objectives:

1. Describe the current state of BCI research in pediatric rehabilitation
2. Understand what BCI technology is and how it can be applied clinically
3. Consider the pros and cons of using BCI as an alternate access method
4. Apply implementation strategies to adopt BCI technology into clinical practice

4:00 PM – 6:00 PM CT

MINISYMP05: THE NATIONAL INSTITUTE OF NEUROLOGICAL DISORDERS AND STROKE (NINDS) CEREBRAL PALSY COMMON DATA ELEMENTS (CDE): WHAT THEY ARE, WAYS TO USE THEM, AND GAPS

Joline Brandenburg MD, Carolina Mendoza-Puccini MD, Theresa Moulton PT, DPT, PhD, Robin Feldman BS, MBA, Angela Shierk PhD

Learning Objectives:

1. Define CP CDEs, case report forms, and instruments.
2. Describe the process for developing and adding CP CDEs and instruments.
3. Demonstrate how to navigate the NINDS CDE website
4. Demonstrate how to use CP CDEs and case report forms in research, clinical practice, and education.

4:00 PM – 6:00 PM CT

MINISYMP06: UNDERSTANDING THE RATIONALE BEHIND PRACTICE VARIATION IN SELECTIVE DORSAL RHIZOTOMY

Paul Gross BA, Brandon Roque MD, MS, Jeffrey Leonard MD, Tom Novacheck MD, Joyce Oleszek MD, Bhooma Aravamuthan MD, DPhil, Nelleke Langerak BSc, MSc, PhD, Caroline Colvin PT, DPT, PCS

Learning Objectives:

1. Understand key areas of agreement and divergence in SDR decision making criteria based on real world practices.
2. Describe the tools and measures that are consistently used to guide decision making for SDR.
3. Learn the key areas of existing research and gaps to support these decisions.
4. Describe the key disciplines and process shared across most surgical spasticity clinics for SDR.

4:00 PM – 6:00 PM CT

MINISYMP07: MAKING A DIFFERENCE WITH THE GOAL QUESTIONNAIRE: INCORPORATING PATIENT AND PARENT PRIORITIES INTO PRACTICE

Jean Stout PT, MS, PhD(c), Elizabeth Boyer PhD, Andrew Georgiadis MD, Pam Thomason MPT, Kathryn (Katie) Walt PT, DPT, Unni Narayanan MBBS, MSc, FRCSC

Learning Objectives:

1. Describe the unique nature of the GOAL Questionnaire and what it adds to functional patient reported outcome assessment.
2. Understand the reliability and validity of the GOAL Questionnaire; and describe the scoring and interpretation of the GOAL across patients with different gross motor abilities.
3. Identify pearls and pitfalls of incorporating the GOAL Questionnaire into clinical practice.
4. Discuss how knowledge of patient and parent priorities related can augment and direct treatment planning.

4:00 PM – 6:00 PM CT

MINISYMP08: IDIOPATHIC TOE WALKING: AN EVIDENCE BASED APPROACH TO DIAGNOSIS AND TREATMENT

Jeremy Bauer MD, Jon Davids MD, Jenny Wilson MD, Amanda Stoltz PT, DPT, PCS

Learning Objectives:

1. To enhance the knowledge of the natural history of ITW
2. To formulate a treatment plan for children with ITW
3. To utilize QGA to diagnose ITW and to differentiate ITW from other disorders
4. To describe the differential diagnosis of ITW.

4:00 PM – 6:00 PM CT

MINISYMP09: LESSONS LEARNT FROM THE REACH CLINICAL TRIAL OF REHABILITATION EARLY FOR INFANTS AT HIGH RISK OF CONGENITAL HEMIPLEGIA – INFORMING CLINICAL PRACTICE AND FUTURE RESEARCH

Roslyn Boyd PhD, Susan Greaves PhD, Leanne Sakzewski PhD, Bachelor Occupational Therapy, Kimberley Scott PT, DPT, PhD, Jill Heathcock MPT, PhD

Learning Objectives:

1. Upon completion, the participant will be able to highlight the entry criteria for early upper limb rehabilitation for infants at high risk of UCP including early identification tools.
2. Upon completion, the participant will be able to determine the setting, mode, toys and play based activities to undertake Baby CIMT for infants at high risk of Unilateral CP.
3. Upon completion, the participant will be able to select appropriate setting, mode, toys and play based activities to undertake Baby BIM for infants at high risk of Unilateral CP.
4. Upon completion, the participant will be able to measure of fidelity of delivery of intervention by therapists and enactment of intervention by parents in an Early Rehabilitation Clinical Trial.

4:00 PM – 6:00 PM CT

MINISYMP10: SLEEP IN INFANTS AND YOUNG CHILDREN WITH CEREBRAL PALSY

Angelynn Zimmerman OTR/L, MA, BCP, IBCLC, AOMT-C, Vlad Ianus MD, John Phillips MD

Learning Objectives:

1. Review normal sleep milestones in the first year of life
2. Identify 3 common problems causing sleep disturbance as a secondary issue and what referrals may be helpful and to whom.
3. Be able to list at least 3 non-drug treatments for a child with CP who has poor sleep
4. Describe normal sleep changes in the first year of life

4:00 PM – 6:00 PM CT

MINISYMP11: SEXUALITY AND INTIMACY FOR INDIVIDUALS AFFECTED WITH CEREBRAL PALSY: A MULTIDISCIPLINARY APPROACH TO ENHANCE QUALITY OF LIFE

Heakyung Kim MD, Jan Moskowitz MSW, Susan Labhard MSN, RN

Learning Objectives:

1. Upon completion, participants will be able to understand the importance of including sex/sexuality in assessments and learn how to initiate meaningful conversation relating sex/sexuality.
2. Upon completion, participants will be able to understand physical challenges and limitation that people with CP experience related to sexual activity.
3. Upon completion, participants will be educated on available treatment options for management of medical conditions that people with CP experience related to sexual activity.
4. Upon completion, participants will be able to encourage the inclusion and attention to sexuality as a topic in health care and transition planning

4:00 PM – 6:00 PM CT

MINISYMP12: AUGMENTATIVE & ALTERNATIVE COMMUNICATION (AAC): SUPPORTING A SPECTRUM OF COMMUNICATION NEEDS IN INDIVIDUALS WITH CEREBRAL PALSY AND OTHER NEUROMOTOR IMPAIRMENTS

Abygail Marx MS, CCC-SLP, Jaclyn Bender OTR/L, Anastasia Wilson BS in Arts

Learning Objectives:

1. Describe concepts underlying use of AAC and its importance in meeting communication needs for individuals with complex motor, sensory, and communication impairments including cerebral palsy and other neuromotor conditions.
2. Understand the importance of the feature matching process as a strategy for selecting and implementing appropriately matched AAC systems that best support a client's current communication and access needs.
3. Demonstrate knowledge of current low-, mid-, and high-tech AAC options, including tablet-based applications and dedicated communication devices, along with potential resources for funding these tools.
4. Identify language features, access settings and peripherals to support an individual's physical and sensory needs to allow for successful use of AAC systems.

4:00 PM – 6:00 PM CT

MINISYMP13: REDUCING RISK OF ASPIRATION PNEUMONIA - AN INTERPROFESSIONAL MODEL FOR ASPIRATION RISK MANAGEMENT ACROSS THE LIFESPAN

Toni Benton MD, Mary Beth Schubauer PhD, Elizabeth Finley RN, Jason Buckles PhD, Deann Griego

Learning Objectives:

1. Understand the impact of aspiration on the health and safety of the individual with IDD.
2. Recognize the unique feeding needs of the individual with intellectual and developmental disabilities which can place them at risk for aspiration
3. Recognize the benefits of interprofessional collaboration in the recognition, evaluation, and management of the individual with IDD who may be at risk for aspiration
4. Participate in group simulation activity and discussion with an adult volunteer with IDD and risk for aspiration, strategies to reduce aspiration risk

7:00 AM - 8:00 AM CT

Continental Breakfast

8:00 AM - 9:00 AM CT

Morning Seminars 13-25

8:00 AM - 9:00 AM CT

MORNSEM13: THINKING OUTSIDE THE BUN: YOUR ROLE IN COMMUNITY-BASED WELLNESS

Jennifer Angeli DPT, PhD, Daniel Meyer DPT

Learning Objectives:

1. Identify wellness as a critical component of child health
2. Recognize that health promotion is a job responsibility that will require time and effort in a novel workplace setting: the local community
3. Apply be.well or other audience-identified wellness models as scalable exemplars for local practice
4. Simulate the cursory steps of program development by completing a process map for a hypothetical community-based wellness program

8:00 AM - 9:00 AM CT

MORNSEM14: RECENT PRACTICE CHANGING PUBLICATIONS FOR THE PEDIATRIC COMPLEX CARE PROVIDER (2023)

Kristina Malik MD, Anna Jesus MD, Larry Desch MD, Irene Dietz MD

Learning Objectives:

1. Discuss current topics and advances in the care of children with medical complexity.
2. Understand the multidisciplinary implications for each recent publication.
3. Identify methods to integrate findings into clinical practice.
4. Learn ways to improve patient's mental health and transition care through new research.

8:00 AM - 9:00 AM CT

MORNSEM15: I'M A PHYSIATRIST NOT A PSYCHIATRIST: ADDRESSING MENTAL HEALTH IN AN INTERDISCIPLINARY CLINIC FOR ADULTS WITH DEVELOPMENTAL DISABILITIES

Jensine Clark MD, Lauren Wang MD, Corey Keeton MD

Learning Objectives:

1. Discuss prevalence and psychosocial risk factors for the development of mental health disorders in adults with developmental disabilities.
2. Utilize screening tools to diagnose mental health disorders in patients with a variety of communication styles and/or levels of cognitive impairment.
3. Develop strategies to address and treat mental health disorders in adults with developmental disabilities.
4. Explore how an interdisciplinary approach can be utilized to treat mental health disorders.

8:00 AM - 9:00 AM CT

MORNSEM16: POWERED MOBILITY IN CHILDREN AND YOUNG PEOPLE WITH CEREBRAL PALSY: STATE-OF-THE-ART IN ASSESSMENT, TRAINING AND NEW TECHNOLOGIES

Mari Naaris MSc, Saranda Bekteshi PhD, Inti Vanmechelen MSc, Elegast Monbaliu PhD

Learning Objectives:

1. Set-up and optimize powered mobility skills training in children and young people with CP.
2. Assess movement disorders during powered wheelchair use and relate them to driving performance.
3. Implement the most recent instrumented assessment methods relevant to powered mobility.
4. Apply the new technological solutions in powered wheelchair mobility.

8:00 AM - 9:00 AM CT

MORNSEM17: IMPROVING CARE OF CHILDREN WITH CEREBRAL PALSY AT THE STATE LEVEL - INTRODUCING THE GEORGIA ALLIANCE FOR CEREBRAL PALSY - ADVOCACY AND CLINICAL COORDINATION IN ACTION

Cynthia Frisina MA, CARSS, Nathalie Maitre MD, PhD, Allison McIntyre OTR/L, Gavin Colquitt PhD

Learning Objectives:

1. Demonstrate an understanding of state and local cerebral palsy care models.
2. Demonstrate an understanding of how advocacy can improve cerebral palsy care coordination at the state and local level throughout the lifespan.
3. Describe resources needed to assist with creating a transformative state-wide care coordination model.
4. Demonstrate an understanding of methods to overcome barriers and engage stakeholders effectively.

8:00 AM - 9:00 AM CT

MORNSEM18: COMPLEXITIES IN THE STUDY OF CAREGIVER-REPORTED INFANT DEVELOPMENT: FINDINGS FROM THE PEDIATRIC PROJECT

Seth Warschausky Ph.D., Renee Lajiness-O'Neill Ph.D., Jennifer Gidley Larson Ph.D., ABPP-CN, H. Gerry Taylor Ph.D., ABPP-CN

Learning Objectives:

1. Upon completion, the participant will be able to describe the importance of and distinctions between measures of response style and response validity in caregiver ratings, and complex associations with socio-demographics.
2. Upon completion, the participant will be able to evaluate the advantages and disadvantages of child development monitoring and screening with cross-sectional versus longitudinal metrics based on caregiver report.
3. Upon completion, the participant will be able to describe biological sex and sociodemographic differences in caregiver ratings of infant development.
4. Upon completion, the participant will be able to describe differences between the PediaTrac instrument and the ASQ-3.

Program & Events — Tuesday, September 12, 2023

8:00 AM – 9:00 AM CT

MORNSEM19: TARGETED SELF-GENERATED MOVEMENT STRATEGIES FOR INFANTS AND TODDLERS AT RISK

Susan Duff EdD, MPT, OT/L, CHT

Learning Objectives:

1. Upon completion, participant will be able to describe common hand and arm dysfunction present in infants and toddlers secondary to peripheral nerve or other neurological conditions.
2. Upon completion, participant will be able to identify low-cost and technology-based strategies to improve muscle activation and arm function in infants with various neuromotor conditions.
3. Upon completion, participant will be able to identify considerations relevant to the timing and intensity of intervention methods for infants and toddlers, essential for successful home or clinic implementation.
4. Upon completion participant will be able to critique intervention strategies introduced by the speaker and audience as well as readiness for home or clinic implementation.

8:00 AM – 9:00 AM CT

MORNSEM20: WHAT DO TODAY'S PARENTS EXPECT FROM HEALTHCARE SERVICES? A PARENT-RESEARCH PARTNERSHIP TO DEVELOP AN UP-TO-DATE MEASURE OF FAMILY-CENTRED SERVICE

Kinga Pozniak PhD, Peter L Rosenbaum MD, CM, FRCP(C), DSc (HC), FRCPI Hon (Paed) RCPI, Gillian King PhD, Elizabeth Chambers BA

Learning Objectives:

1. Appreciate components of care that are important to families (ie. the tenets of Family-Centred Service)
2. Identify whether and how these components apply to their own practice
3. Reflect on clinical, attitudinal and structural barriers to implementing FCS in their own practice
4. Reflect on strategies for addressing/overcoming these barriers in their practice and at the systems level.

8:00 AM – 9:00 AM CT

MORNSEM21: INTERPRETING HIP SURVEILLANCE X-RAYS WITH THE HIPSCREEN APP: A PRIMER FOR THE RADIOLOGY NOVICE

Vedant Kulkarni MD, Jon Davids MD, Amanda Whitaker MD

Learning Objectives:

1. Upon completion, participants will be able to use the HipScreen App to measure a hip's migration percentage.
2. Upon completion, participants will be able to identify important landmarks on a hip surveillance radiograph used for quantifying hip displacement.
3. Upon completion, participants will be able to recognize features of poor patient positioning for radiographs that could cause inaccuracy of the migration percentage measurement.
4. Upon completion, participants will be able to understand protocols for proper positioning of children to obtain accurate hip surveillance radiographs.

8:00 AM – 9:00 AM CT

MORNSEM22: EXPANDING THE DELIVERY OF PEDIATRIC CONSTRAINT-INDUCED MOVEMENT THERAPY: A MENTORSHIP APPROACH TO TRAIN THERAPISTS IN TRINIDAD AND TOBAGO

Patty Coker-Bolt PhD, OTR/L, FNAP, FAOTA, Mary Rebekah Trucks MS, OTR/L

Learning Objectives:

1. Understand how to use a translational framework to build capacity and support health equity for evidence-based interventions in countries where resources are limited.
2. Describe ways to train and mentor therapists in countries with workforce capacity challenges.
3. Discuss the resources available from the World Health Organization (WHO) Rehabilitation 2030 initiative which was launched to scale up rehabilitation in the most needed areas of the world.
4. Understand how to collaborate with practitioners abroad to develop culturally relevant models of interventions developed in Western settings.

TUESDAY

Program & Events — Tuesday, September 12, 2023

8:00 AM – 9:00 AM CT

MORNSEM23: CASTING AS A PART OF MULTIMODAL TREATMENT APPROACH IN CHILDREN WITH CEREBRAL PALSY

Marcin Bonikowski MD PhD, Nigar Dursun MD, Jorge Carranza PhD

Learning Objectives:

1. Understand complexity of secondary problems related to muscle shortening in children with cerebral palsy (CP) and importance of multimodal treatment approach
2. Understand the level of evidence for the use of serial casting
3. Develop skills in making clinical decisions on patient selection, type of casting and follow-up
4. Learn how to incorporate casting into integrated rehabilitation process
Discover methods for adapting the therapy program while using casts

8:00 AM – 9:00 AM CT

MORNSEM24: ACCESSING THE CP RESEARCH NETWORK REGISTRIES FOR COMMUNITY RESEARCH AND SECONDARY ANALYSES

Paul Gross BA, Kristie Bjornson PT, PhD, MS, Mary Gannotti PT, PhD, Brandon Roque MD, MS

Learning Objectives:

1. Describe the type and volume of data available in the CP Research Network registries.
2. Understand the protocol for accessing data in the CP Research Network registries.
3. What studies and datasets are available for secondary analyses.
4. How new community studies can be proposed and implemented to target specific populations.

8:00 AM – 9:00 AM CT

MORNSEM25: TO STAND OR NOT TO STAND: A DISCUSSION OF GOALS AND HEALTH RELATED QUALITY OF LIFE IN PATIENTS WITH MMFC1 SPINA BIFIDA

Jill Larson MD, Caren Mangarelli MD, MS, Ana-Marie Rojas MD, Vineeta Swaroop MD

Learning Objectives:

1. Upon completion, participant will be able to describe the current evidence regarding the benefits of a standing program for patients with MMFC 1 spina bifida.
2. Upon completion, participant will be able to define a standing program for patients with MMFC 1 spina bifida including when to initiate, what to use, and duration of time.
3. Upon completion, participant will be able to understand the factors that contribute to decision-making to discontinue a standing program .
4. Upon completion, participant will be able to define when orthopaedic surgery may be a reasonable recommendation for the goal of continuing supported standing in patients with MMFC 1 spina bifida

9:00 AM – 9:30 AM CT

Coffee Break

9:30 AM – 11:30 AM CT

General Session

Duncan Wyeth Award

Mac Keith Press Basic Science Lecture

Mentorship Award

Lifetime Achievement Award

Corbett Ryan Award

12:00 PM – 1:00 PM CT

Product Theater

First Come, first served. Lunch provided.

1:30 PM – 3:15 PM CT

FREE PAPER SESSIONS E-H

Free Paper Session E: Early Detection and Diagnosis

1:30 PM – 1:37 PM CT

E1: Effect of NICU and Home-Based Intervention on Motor Outcomes of Moderate and Late Preterm Infants During First 6 Months of Life – A Randomized Clinical Trial

Sonia Khurana PhD, Bhamini Rao PhD, Leslie Edward Lewis MD, Daniel Russell PhD, Stacey Dusing PhD

1:38 PM – 1:45 PM CT

E2: The Effect of Early Physical Therapy Interventions on Emotional Availability in Children with Neuromotor Delay and Their Caregiver

Rebecca Molinini DPT, Corri Stuyvenberg PT, DPT, MA, Regina Harbourne PT PhD FAPTA, Lin-Ya Hsu PhD, Michele Lobo PT PhD, Sarah McCoy MPT PhD, Sandra Willett PT PhD, Natalie Koziol PhD, James Bovaird PhD, Virginia Chu PhD, Sarah Price MSW PhD, Mary Shall PT PhD, Stacey Dusing PhD

1:46 PM – 1:53 PM CT

E3: Randomised Controlled Trial of Parent-Delivered Early Intervention (Leap-Cp Learning Through Everyday Activities With Parents) for Infants at High Risk of Cerebral Palsy in Low-Middle Income Country

Katherine Benfer PhD, Asis Ghosh MSc, Koa Whittingham PhD, Iona Novak PhD, Robert Ware PhD, Roslyn Boyd PhD

1:54 PM – 2:01 PM CT

E4: A Family- Centered, Early Intervention Package for Infants at High Risk for Neuro-Developmental Disabilities to Promote Language Development During Early Infancy: A Randomized Controlled Trial

Yvonne Weerasinghe MPhil, BSc (honors) SLT, PGDHD, Nalika Gunawardena MBBS, MD, Samanmali Sumanasena MD

Program & Events — Tuesday, September 12, 2023

2:02 PM – 2:09 PM CT

E5: Quantifying the Activity Levels of Toddlers with Down Syndrome Playing in a Partial Body Weight Support System
Mia Hoffman, Reham Abuatiq PT, Alyssa LaForme Fiss PT, PhD, Julia Looper PhD, Katherine Steele PhD, Heather Feldner PT, MPT, PhD, PCS

2:21 PM – 2:28 PM CT

E6: The Baby CHAMP Comparative Efficacy Trial: Effects of high-dosage CIMT and Bimanual rehabilitation for infants and toddlers with Hemiparetic Cerebral Palsy
Stephanie Deluca PhD, Amy Darragh PhD, Mark Conaway PhD, Jill Heathcock MPT, PhD, Warren Lo MD, Thais Cabral PhD, Andrew Gordon PhD, Sharon Ramey PhD

2:29 PM – 2:36 PM CT

E7: REACH: Randomised Trial of Rehabilitation Very Early in Congenital Hemiplegia
Roslyn Boyd PhD, Leanne Sakzewski PhD, Bachelor Occupational Therapy, Iona Novak PhD, Susan Greaves PhD, Margaret Wallen PhD, Catherine Morgan PhD, Nadia Badawi PhD, Catherine Elliott PhD, Jill Heathcock MPT, PhD, Ann-Christian Eliasson PhD, Natalie Maitre PhD, Koa Whittingham PhD, Robert Ware PhD

2:37 PM – 2:44 PM CT

E8: Therapist Fidelity in a Multi-Site Randomized Comparative Efficacy Trial of Baby-Cimt and Baby-Bim for Infants with Unilateral Cerebral Palsy
Kimberley Scott PT, DPT, PhD, Jill Heathcock MPT, PhD, Leanne Sakzewski PhD, Bachelor Occupational Therapy, Roslyn Boyd PhD

2:45 PM – 2:52 PM CT

E9: Outcomes of Preterm Infants Enrolled in a Randomized Clinical Trial of a Parent Administered Sensorimotor Intervention
Sandra Fucile PhD, Kimberly Dow MD, Laurie Snider PhD, Karel O'Brien MD

2:53 PM – 3:00 PM CT

E10: Evaluating Responsiveness of the Gross Motor Function Measure-66 Item Sets for Young Infants with or at High Risk for CP
Natalie Koziol PhD, Christiana Butera EdM, PhD, Silvana Pereira PhD, Nicole Greenberg PT, DPT, PCS, Lin-Ya Hsu PhD, Stacey Dusing PhD

Free Paper Session F: Rehab/Participation

1:30 PM – 1:37 PM CT

F1: Role of Environmental Factors and Social Determinants of Health in the Functioning of Children and Youth with CP in 8 Cities of Argentina
L. Johana Escobar Zuluaga BA, Maria de las Mercedes Ruiz Brunner PhD, Eduardo Cuestas PhD, M. Elisabeth Cieri PhD, Ana Laura Condinanzi BA, Federico Sanchez BA, Verónica Schiariti PhD

1:38 PM – 1:45 PM CT

F2: The Effectiveness of Wheeled Mobility Skills Interventions in Children and Young People with Cerebral Palsy: A Systematic Review
Mari Naaris MSc, Saranda Bektashi PhD, Maria Aufheimer MSc, Kathrin Gerling PhD, Hans Hallez PhD, Els Ortibus PhD, Marco Konings PhD, Elegast Monbaliu PhD

1:46 PM – 1:53 PM CT

F3: Construct Validity of the Both Hands Assessment Using Wrist-Worn Accelerometers
Stina Oftedal PhD, B Hlth Sc (Diet), Andrea Burgess PhD, Roslyn Boyd PhD, Sarah Reedman PhD, Stewart Trost PhD, Robert Ware PhD, Leanne Sakzewski PhD, Bachelor Occupational Therapy

1:54 PM – 2:01 PM CT

F4: Capable and Able: A Photovoice Study of Ankle-Foot Orthosis Perceptions and Use by Ambulatory Children with Cerebral Palsy and their Families
Heather Feldner PT, MPT, PhD, PCS, Brooke Suitum, Kristen Wan, Kristie Bjornson PT, PhD, MS

2:02 PM – 2:09 PM CT

F5: Balance in Children with Obstetric Brachial Plexus Paralysis and Its Relationship with Upper Limb Injury Severity
Ozlem Karatas MD, Tugba Gokbel MD, Cigdem Cekmece PhD, Nigar Dursun MD

2:21 PM – 2:28 PM CT

F6: Caregiver Perspectives of Spinal Cord Stimulation for Children with Cerebral Palsy: A Qualitative Study
Siddhi Shrivastav PT, MS, Charlotte Caskey BS, MS, Madeline Herrenkohl, Kristie Bjornson PT, PhD, MS, Katherine Steele PhD, Chet T. Moritz PhD, Heather Feldner PT, MPT, PhD, PCS

2:29 PM – 2:36 PM CT

F7: Investigating Possible Risk Factors for Burnout in Parents of Children with Disabilities
Daniel McKee DPT, Erin Wentzell DPT, DrPH(c)

2:37 PM – 2:44 PM CT

F8: The Effect of Umbilical Cord Blood Treatment on Improving Gross Motor Function in Individuals with Cerebral Palsy: Results From an Individual Participant Data Meta-Analysis
Megan Finch-Edmondson PhD, BSc (Hon), Madison Paton PhD, Annabel Webb MRes, Mahmoud Reza Ashrafi MD, Charles Cox MD, Kylie Crompton BSc(hons), PhD, Alexandra Griffin PhD, MinYoung Kim MD, Steven Kosmach MSN, RN, Joanne Kurtzberg MD, Masoumeh Nouri PhD, Jessica Sun MD, Morteza Zarrabi MD, PhD, Iona Novak PhD

2:45 PM – 2:52 PM CT

F9: Baby Intensive Early Active Treatment (babiEAT): A Pilot Randomised Controlled Trial of Feeding Therapy for Infants with Cerebral Palsy and Oropharyngeal Dysphagia
Amanda Khamis PhD, Nadia Badawi PhD, Catherine Morgan PhD, Iona Novak PhD

TUESDAY

Program & Events — Tuesday, September 12, 2023

2:53 PM – 3:00 PM CT

F10: Quality of Instruments Assessing Activity and Participation of Children with Developmental Coordination Disorder: A Systematic Review Using the Cosmin Methodology
Meihuan Huang, Wujie Huang MS, Jianguo Cao MS

Free Paper Session G: Tone Management/Epidemiology

1:30 PM – 1:37 PM CT

G1: Multi-Center Improvement in Dystonia Detection in People with CP

Bhooma Aravamuthan MD, DPhil, Esra Pehlivan BS, Keerthana Chintalapati MD, Keisuke Ueda MD, Toni Pearson MBBS, Christie Becu MD, Michael Kruer MD, Deborah Grenard BS, Desiree Roge MD, Paul Gross BA, Amy Bailes PT PhD

1:38 PM – 1:45 PM CT

G2: Individuals with Dyskinetic Cerebral Palsy Show Altered Upper Limb Kinematics in Comparison with Typically Developing Peers – A Statistical Parametric Mapping Study

Inti Vanmechelen MSc, Kaat Desloovere PhD, Helga Habermehlner PhD, Brian Martens MD, Jeroen Vermeulen MD, Annemieke Buizer MD, Hilde Feys PhD, Elegast Monbaliu PhD

1:46 PM – 1:53 PM CT

G3: Markerless Motion Tracking to Assess Upper Extremity Movements in Children and Adolescents with Dyskinetic Cerebral Palsy

Inti Vanmechelen MSc, Ellen Van Wouterghem MSc, Hans Hallez PhD, Jean-Marie Aerts PhD, Elegast Monbaliu PhD, Helga Habermehlner PhD

1:54 PM – 2:01 PM CT

G4: Identifying Upper Extremity Features of Dystonia in People with Cerebral Palsy

Laura Gilbert DO, MBA, Sushma Gandham BA, Toni Pearson MBBS, Keisuke Ueda MD, Bhooma Aravamuthan MD, DPhil

2:02 PM – 2:09 PM CT

G5: Selective Dorsal Rhizotomy Practice Variation

Brandon Roque MD, MS, Steven Wisniewski PhD, Samuel Browd MD, Manish Shah MD, Jeffrey Leonard MD, Robert Bollo MD, Jeffrey Raskin MS, MD, Virendra Desai MD, Charles Stevenson MD, Scellig Stone MD, Lisa Diller PhD, Paul Gross BA

2:21 PM – 2:28 PM CT

G6: Causal Trends and Prevention Measures of Post-Neonatally Acquired Cerebral Palsy in Australia 1975-2014

Emma Waight BA, Sarah McIntyre PhD, Susan Woolfenden PhD, Shona Goldsmith PhD, Susan Reid PhD, Linda Watson, Annabel Webb MRes, Nadia Badawi PhD, Hayley Smithers-Sheedy BAppSc (Sp Path), MPH, PhD

2:29 PM – 2:36 PM CT

G7: Cerebral Palsy in Australia: Prevalence Estimates and Residential Remoteness

Hayley Smithers-Sheedy BAppSc (Sp Path), MPH, PhD, Sarah McIntyre PhD, Emma Waight BA, Susan Reid Ph, Shona Goldsmith PhD, Catherine Gibson PhD, Heather Scott BMgmt, Linda Watson, Megan Auld PhD, Gina Hinwood MSE, Fiona Kay MBBS FRACP GCAD, Clare Wiltshire BPhysio (Hons), BA, Grad Cert (Clinical Redesign), Nadine Davies, Nadia Badawi PhD

2:37 PM – 2:44 PM CT

G8: Cerebral Palsy Registers and Surveillance Systems: A Survey Understanding The Depth and Breadth of Data Collected Globally

Shona Goldsmith PhD, Hayley Smithers-Sheedy BAppSc (Sp Path), MPH, PhD, Nihad Almasri PhD, Guro Andersen PhD, Leanne Diviney, Ecaterina Buftac Gincota PhD, Kate Himmelmann PhD, Israt Jahan PhD, Emma Waight BA, Sarah McIntyre PhD

2:45 PM – 2:52 PM CT

G9: Deep-Learning Algorithm Accurately Measures Migration Percentage on Hip Surveillance Radiographs: Validation on a Data Set from 24 International Centers

Vedant Kulkarni MD, Chun-Hsiao Yeh MS, Justin Krogue MD, Michael Firtha DO, Marie Villalba BS, Patrick Donohue BS, Sangryul Jeon PhD, Stella Yu PhD

2:53 PM – 3:00 PM CT

G10: Perspectives of Health-Workers and Parents About Readiness to Implement and Incorporate Early Child Developmental Screening into Routine Clinic Services in South-Western Nigeria: A Qualitative Study

Oluwatosin Olorunmoteni MBBS, MPH, FWACP, Melissa Gladstone MD, Adeleye Adeomi MBBS, PhD, Temiloluwa Oyetoke MBBS

Free Paper Session H: Medical Complexity/Pain/Nutrition

1:30 PM – 1:37 PM CT

H1: What if Children with Cerebral Palsy Were Smaller? Burdens, Interests and Acceptance of Caregivers

Manuela Quiroga MD, Francisco Castro-Guzmán MD, Alejandro Mejía-Grueso MD, María Fernanda García-Rueda MD, Camilo Mendoza-Pulido MSc, Fernando Suárez-Obando PhD, José Luis Duplat MD

1:38 PM – 1:45 PM CT

H2: Discharge Readiness for Transition from Hospital to Home for Children with Cerebral Palsy Undergoing Orthopedic Surgery

Judith Vessey PhD, MBA, RN, FAAN, Rachel DiFazio PhD, RN, PPCNP-BC, FAAN, Patricia Miller MS, Brian Snyder MD, PhD, Benjamin Shore MD, MPH, FRCSC

1:46 PM – 1:53 PM CT

H3: Deep Learning-Based Bone Mineral Density Prediction Assessment Using Plain Radiographs for Children

Juntaek Hong MD, Joong-on Choi MS, Dain Shim MS, YongJin Ahn MD, Dong-wook Rha PhD

TUESDAY

Program & Events — Tuesday, September 12, 2023

1:54 PM – 2:01 PM CT

H4: Latent Class Analysis to Describe Patterning of Comorbidity in Adults with Cerebral Palsy Utilizing Medicare Services

Allie Leis PhD, MS, Daniel Whitney PhD

2:02 PM – 2:09 PM CT

H5: Surgery for Neuromuscular Scoliosis Is Associated with Reduced Pulmonary Mortality in Children with Cerebral Palsy

Matti Ahonen MD, Ilkka Helenius MD, Mika Gissler PhD, Ira Jeglinsky Kankainen Associate professor

2:21 PM – 2:28 PM CT

H6: North American Validation of the Cerebral Palsy Growth Charts and the Relationship between Weight Percentiles and Health

Richard Stevenson MD, Mark Conaway PhD

2:29 PM – 2:36 PM CT

H7: Does Skinfold Thickness Add to the Relationship Between Weight Percentile and Health in Children with Cerebral Palsy?

Richard Stevenson MD, Mark Conaway PhD

2:37 PM – 2:44 PM CT

H8: Uncovering the Hidden Crisis: An 8-Year Retrospective Study of the Prevalence of Undernutrition in Children with Cerebral Palsy in Northeast Mexico

Sofia Villarreal-Zambrano MS, Consuelo Ibarra-Rodriguez MD, Alejandra Sagástegui Roel, Jessica Villarreal Rios RD

2:45 PM – 2:52 PM CT

H9: Candidate Pain Biomarkers in Communicative Adults with Cerebral Palsy and Bilateral White Matter Injury: Brain Structure, Connectivity, and Dimensions of Pain

Nicole Gorny M.S., Claudia Campbell PhD, Alexander Hoon MD, MPH, Lauren Jantzie PhD, Colleen Lenz NP, Martin Lindquist MSc, PhD, Shenandoah Robinson MD, Eric Chin MD

2:53 PM – 3:00 PM CT

H10: Changes in Pain Intensity and Associated Factors in Young Children with Cerebral Palsy

Heather Shearer DC, MSc, PhD, Darcy Fehlings MD FRCPC MSc, Lauren Switzer MSc, HBSc

Tuesday, September 12, 2023:

3:30 PM – 4:00 PM CT

Coffee Break

4:00 PM – 6:00 PM CT

Mini Symposia 14-26

4:00 PM – 6:00 PM CT

MINISYMP14: PERSPECTIVES ON WOMEN IN LEADERSHIP: SHE SAID HE SAID.

Joline Brandenburg MD, Michael Sussman MD, Eileen Fowler PhD, PT, Susan Sienko PhD, William Oppenheim MD, Richard Stevenson MD, Jilda Vargus-Adams MD MSc, Robert Armstrong MD PhD FRCPC, Maureen O'Donnell MD MSc FRCPC, Peter L Rosenbaum MD, CM, FRCPC(C), DSc (HC), FRCPI Hon (Paed) RCPI, Darcy Fehlings MD FRCPC MSc

Learning Objectives:

1. Understand more about perceived and actual leadership differences between women and men.
2. Describe successes and challenges men and women experience in advocating and sponsoring women to leadership positions.
3. Identify effective strategies to enhance progress towards promoting women to successful leadership roles.
4. Formulate one action item to advance their own leadership interests or leadership of women.

4:00 PM – 6:00 PM CT

MINISYMP15: CONTROVERSY IN THE UTILITY OF GAIT ANALYSIS: CONSISTENCY OF GAIT INTERPRETATION & TREATMENT RECOMMENDATIONS

Jean Stout PT, MS, PhD(c), Andrew Georgiadis MD, Kathryn (Katie) Walt PT, DPT, Michael Healy MD, Tom Novacheck MD

Learning Objectives:

1. Discuss the controversy related to gait interpretation consistency and its influence on the utility of gait analysis as a clinical tool.
2. Explain the sources of variability that may contribute to the lack of consistency of interpretation and the benefits of a structured, on-going consistency assessment program.
3. Identify the challenges associated with achieving consistency of problem identification and treatment recommendations among course participants.
4. Discuss the impact of consistency competency and consensus of gait data interpretation on providing quality patient care.

TUESDAY

4:00 PM – 6:00 PM CT

MINISYMP16: CP-ADAPT – SPEEDING UP CLINICAL TRIALS AND TRANSLATION OF NEW KNOWLEDGE INTO TREATMENT FOR CHILDREN WITH CEREBRAL PALSY VIA A RESEARCH NETWORK

Iona Novak PhD, Michael Shrader MD, Darcy Fehlings MD FRCP, MSc, Jens Bo Nielsen PhD, Bernard Dan PhD, Michael Fahey PhD, Paul Gross BA, Anina Ritterband-Rosenbaum PhD

Learning Objectives:

1. Upon completion, participants will be able to understand the field agreement to date on building such a network
2. Upon completion, participants will be able to describe the various opportunities for global collaboration
3. Upon completion, participants will be able to understand how to become a member and collaborate
4. Upon completion, participants will be able to choose ways to stay uncoiled with the network

4:00 PM – 6:00 PM CT

MINISYMP17: USE OF THE BABYOSCAR (OBSERVATIONAL SELECTIVE CONTROL APPRAISAL) TO QUANTIFY INDIVIDUAL JOINT CONTROL IN INFANTS: SCORING THE TEST AND IMPLICATIONS FOR PROGNOSIS

Theresa Sukal-Moulton PT, DPT, PhD, Colleen Peyton PT, DPT

Learning Objectives:

1. Define selective motor control in older children and describe how it may appear in an infant.
2. Practice scoring items on the BabyOSCAR tool, adding summary scores.
3. Predict motor outcome based on elements of the BabyOSCAR score.
4. Describe the neural pathways that may be implicated in the expression of selective motor control in infants with and without CP.

4:00 PM – 6:00 PM CT

MINISYMP18: DEMYSTIFYING THE KNEE: EXPERT CONSENSUS INFORMED BY THE DELPHI PROCESS FOR SOFT TISSUE AND BONE SURGERIES PERFORMED ABOUT THE KNEE IN AMBULATORY CHILDREN AND ADOLESCENTS WITH CEREBRAL PALSY

Kristan Pierz MD, James McCarthy MD, MHCM, Henry Chambers MD, Tom Novacheck MD, Benjamin Shore MD, MPH, FRCSC, Erich Rutz MD, PhD

Learning Objectives:

1. Upon completion, participant will be able to describe the Delphi process
2. Discuss where consensus does/does not exist for common procedures performed on the long bones, foot, and ankle for ambulatory children with cerebral palsy
3. Improve confidence in surgical recommendations and execution
4. Identify where additional work is needed to justify surgical recommendations

4:00 PM – 6:00 PM CT

MINISYMP19: INTEGRATING CAREGIVER AND PATIENT PRIORITIES AND GOALS INTO SHARED DECISION-MAKING FOR CEREBRAL PALSY RELATED INTERVENTIONS

Laurie Glader MD, FAAP, Kristie Bjornson PT, PhD, MS, Amy Cutler MS, OTR/L, Rachel DiFazio PhD, RN, PPCNP-BC, FAAN, Angela Harris BS, Unni Narayanan MBBS, MSc, FRCSC, Adam Ostendorf MD, Brandon Roque MD, MS

Learning Objectives:

1. Characterize common elements of shared decision making
2. Know how to utilize the SDM-Q9 to assess SDM
3. Identify caregiver/patient priorities around common interventions for individuals with CP

Utilize caregiver/patient perspectives to drive the SDM process

4:00 PM – 6:00 PM CT

MINISYMP20: FOSTERING EXCEPTIONAL TEAMS

Nancy Murphy MD, Kilby Mann MD

Learning Objectives:

1. Identify behaviors and dynamics of exceptional teams. Recognize and modify team dynamics that get in the way of exceptional team performance.

Bring 2-3 resources to their own teams to optimize participation, engagement and outcomes.

Identify and implement strategies to improve his/her team dynamics in daily work

4:00 PM – 6:00 PM CT

MINISYMP21: SO YOU ARE THE ONLY PROVIDER; A PRACTICAL APPROACH TO THE ADULT WITH CP

Unoma Akamagwuna MD, Tracy Pickar MSW, Toni Benton MD, Heidi Haapala MD

Learning Objectives:

1. Participants will list 3 strategies to educate and empower self-advocates and their families to participate in, direct, and guide their own care in regards to primary care management
2. Receive a practical guide on resources to access mental health resources for patients
3. Participants will learn about national resources that aid in accessing community supports
4. Explore strategies to expand the role and capacity of communities to identify local needs and promote health and wellness

4:00 PM – 6:00 PM CT

MINISYMP22: MULTIFACETED MEALTIME MANAGEMENT FOR CHILDREN WITH CEREBRAL PALSY: THE ART, SCIENCE, AND REALITY OF SUPPORTING ORAL FEEDING AROUND THE WORLD

Gina Rempel MD, FRCPC, FASPEN, Cindy Dodds PhD, Marianne Gellert-Jones MA, CCC-SLP, Consuelo Ibarra-Rodriguez MD, David Opendi OT

Learning Objectives:

1. Identify points of controversy in the literature regarding approaches to address eating and drinking difficulties for children with cerebral palsy
2. Appreciate a broad and global perspective of eating and drinking in children with cerebral palsy
3. Recognize and value international strategies used to support eating and drinking in children with cerebral palsy
4. Consider quality of life and supportive care models to mitigate risk and optimize mealtime participation for children with cerebral palsy

4:00 PM – 6:00 PM CT

MINISYMP23: THE DEVELOPMENT OF A CAUSAL DIAGRAM FOR CEREBRAL PALSY

Robert Reynolds MS MPH PhD, Steven Day PhD, Sarah McIntyre PhD, Bernard Dan PhD, Shona Goldsmith PhD, Kate Himmelmann PhD, Nadia Badawi PhD, Gija Rackauskaite MD PhD

Learning Objectives:

1. Describe causal diagramming using directed acyclic graphs (DAGs), and construct causal DAGs independently.
2. Understand how scientific evidence may be used in the construction and enhancement of a causal DAG.
3. Explain the current causal diagram for cerebral palsy, including its strengths and weaknesses.
4. Participate in the ongoing development and curation of the causal diagram for cerebral palsy.

4:00 PM – 6:00 PM CT

MINISYMP24: THERAPEUTIC PRIORITIES FOR INDIVIDUALS ACROSS THE LIFESPAN AT GMFCS LEVELS IV AND V

Ginny Paleg DScPT, MPT, PT, Elisabet Rodby-Bousquet PhD, PT, Claire Shrader MS, OTR/L

Learning Objectives:

1. Participants will be able to describe needs and priorities across the lifespan for individuals functioning at GMFCS Levels IV and V.
2. Participants will be able to identify, analyze, and mitigate risk for contractures and deformities.
3. Participants will demonstrate understanding of the importance of breaking up sedentary behavior with activity and participation at each life stage.
4. Participants will be able to apply three intervention strategies to address an individual's priorities and needs in their own setting.

4:00 PM – 6:00 PM CT

MINISYMP25: THAT LOOKS LIKE IT HURTS: THE SEQUEL! CASE BASED DISCUSSION OF INTERVENTIONS TO IMPROVE FUNCTION OF THE PEDIATRIC AND ADOLESCENT FOOT IN CEREBRAL PALSY

Robert Wimberly MD, Rachel Thompson MD, Jason Rhodes MD

Learning Objectives:

1. To improve the understanding of the pediatric orthopaedic surgeon's approach to common foot difference in children with cerebral palsy
2. An enhanced understanding of the advanced assessment of foot deformity through 3 dimensional gait analysis, foot pressure mapping, and radiographic interpretation
3. To consider when nonsurgical approaches to foot pathology are appropriate and when surgical management may be more beneficial
4. To better assess the possible benefits of foot pathology management on function and quality of life for patients with cerebral palsy

4:00 PM – 6:00 PM CT

MINISYMP26: MAKING LARGE INTERNATIONAL CARE STRIDES THROUGH SCHOLARSHIPS AND EDUCATION -- THE IMPACT OF AACPDM SCHOLARSHIPS AND GLOBAL ACTIVITIES OF THE INTERNATIONAL AFFAIRS COMMITTEE

Nathan Rosenberg MD, Antigone Papavasiliou MD, PhD, FAAP, Sandra Hollung PhD, Peter Lichtenthal MD

Learning Objectives:

1. Upon completion, participants will increase their knowledge about the AACPDM international efforts towards knowledge transfer and capacity building.
2. Upon completion, participants will describe how a single AACPDM international scholarship can have multiplicative impacts on health care in underserved countries.
3. Upon completion, participants will identify barriers to change in health care in low to middle income countries.
4. Upon completion, participants will share how they can utilize the AACPDM international committee experience to inform their own international endeavors.

7:00 PM – 11:59 PM CT

Networking Gala

7:00 AM – 8:00 AM CT

Continental Breakfast

8:00 AM – 9:00 AM CT

Morning Seminars 26-37

8:00 AM – 9:00 AM CT

MORNSEM26: HOW PARTICIPATORY RESEARCH INFORMED PRACTICE AND POLICY AT A CANADIAN CHILDHOOD DISABILITY RESEARCH ORGANIZATION: REFLECTIONS FROM CANCHILD

Michelle Phoenix PhD, Alice Soper MSc, Rachel Martens, Olaf Kraus De Camargo MD FRCPC

Learning Objectives:

1. Build awareness of the value of PR in childhood disability research.
2. Increase knowledge on how PR can be applied at an organizational level.
3. Identify opportunities for building capacity in PR.
4. Apply tools and strategies for supporting PR.

8:00 AM – 9:00 AM CT

MORNSEM27: “MY CP IS GETTING WORSE” - HOW CENTRAL NERVOUS SYSTEM DISEASES DISRUPT THE “STATIC” NATURE OF CP

Rebecca Siegel MD, Edward Hurvitz MD, Linda Krach MD, Alejandra Camacho MD

Learning Objectives:

1. Consider secondary conditions affecting the central nervous system when patients with CP present with functional decline.
2. Identify red-flags for spinal cord injuries, brain tumors, stroke and myelopathy
3. Learn how to diagnosis and classify patients with CP and SCI.
4. Gain knowledge about the role of rehabilitation medicine in diagnosis and management of secondary medications conditions adversely affecting CP.

8:00 AM – 9:00 AM CT

MORNSEM28: SKELETAL MUSCLE ADAPTATION TO CEREBRAL PALSY

Richard Lieber PhD, MBA

Learning Objectives:

1. Upon completion, participant will be able to describe the basic anatomical and physiological properties of human skeletal muscles.
2. Upon completion, participant will be able to describe the anatomical, biomechanical and physiological properties of human muscle contractures.
3. Upon completion, participant will be able to describe the insights into muscle contractures revealed by transcriptional profiling.
4. Upon completion, participant will be able to understand potential therapeutic interventions to relieve contractures in children in cerebral palsy.

8:00 AM – 9:00 AM CT

MORNSEM29: IMPLEMENTING A HIGH-DOSE CAREGIVER-DRIVEN THERAPY ACROSS THE CONTINUUM OF CARE (NICU-TO-HOME): STRATEGIES UTILIZED IN A MULTI-CENTER RANDOMIZED CONTROLLED TRIAL (PROJECT CORBETT)

Weiyang Deng PT, PhD, Sofia Anastasopoulos DPT, Raye-Ann DeRegnier MD, Nicole Pouppirt MD

Learning Objectives:

1. Explain the gaps in current early intervention therapies and the difficulties of delivering an intervention in NICU and home settings throughout the first year of life.
2. Describe the steps needed to implement an intervention framework in home settings throughout the first year of life.
3. Summarize participating families' feedback towards a high dosage, caregiver-directed, 1-year-long intervention from focus group interviews.
4. Assess the feasibility of an early intervention RCT.

8:00 AM – 9:00 AM CT

MORNSEM30: EDUCATIONAL SERIES FOR FAMILIES AFFECTED BY PEDIATRIC STROKE OR BRAIN INJURY BUILDS COMMUNITY WHILE EMPOWERING FAMILIES

Mara Yale PhD, Patricia Musolino MD, PhD, Brian Wishart DO, Gretchen Murphy

Learning Objectives:

1. Describe ingredients that make an educational series and outreach program successful
2. List ideas for 2-4 topics per year to begin to build local community that includes families, clinicians, and others
3. Motivate others in their organization to consider supporting an educational series and outreach program
4. Recruit families to partner in designing a first session, workshop, or event to meet their needs

8:00 AM – 9:00 AM CT

MORNSEM31: IMPLEMENTING HIP SURVEILLANCE FOR CHILDREN WITH CEREBRAL PALSY: MOVING BEYOND THE GUIDELINES AND RECOGNIZING THE ADDED BENEFITS

Stacey Miller BSc(PT), MRSc, Maria Juricic BScKin, BScPT, MRSc, Kishore Mulpuri MBBS, MS (Ortho), MHSc (Epi), FRCSC

Learning Objectives:

1. Upon completion, participants will be able to describe the evidence for hip surveillance in children with cerebral palsy.
2. Upon completion, participants will be able to describe strategies for implementing hip surveillance.
3. Upon completion, participants will be able to list barriers and potential solutions to implementing hip surveillance guidelines in their local context.
4. Upon completion, participants will be able to recognize potential side benefits to implementing hip surveillance in their local context.

Program & Events — Wednesday, September 13, 2023

8:00 AM – 9:00 AM CT

MORNSEM32: 'EYE-GAZE TECHNOLOGY IN CHILDREN AND YOUTH WITH SEVERE CEREBRAL PALSY: EVIDENCE-BASED RECOMMENDATIONS AND FUTURE PERSPECTIVES'

Saranda Bektashi PhD, Petra Karlsson PhD, Elegast Monbaliu PhD

Learning Objectives:

1. Structure eye-gaze training programs in their clinical practice aimed at improving eye-gaze performance and skill-acquisition processes in children and youth with severe cerebral palsy.
2. Assess eye-gaze training progress using evidence-based scales and methods that are time- and cost-efficient, such as eye-gaze games or goal attainment scales to evaluate readiness and performance.
3. Implement the international eye-gaze clinical guidelines that provide in-depth, consensus-based insights to support all the steps before and after introducing eye-gaze technology to a person with cerebral palsy.
4. Understand the current gaps in eye-gaze research and future perspectives that include state-of-the-art methods.

8:00 AM – 9:00 AM CT

MORNSEM33: DEVELOPMENT OF AN INDIVIDUALIZED CAREGIVER EDUCATION INTERVENTION FOR PARENTS OF CHILDREN WITH CEREBRAL VISUAL IMPAIRMENT

Karen Harpster PhD, OTR/L, Haley Oliver OTD, OTR/L, Tricia Gribben BA, OTR/L

Learning Objectives:

1. Describe current evidence-based evaluation and intervention methods for children with cerebral visual impairment (CVI)
2. Describe evidence-based vision related task and environmental adaptations for children with CVI that are currently being used in clinical practice.
3. Demonstrate how to translate functional vision evaluation findings into individualized task and environmental adaptations to support a child's vision during functional activities.
4. Develop an individualized plan for environmental and task adaptations to promote occupation-based functional skills for children with CVI.

8:00 AM – 9:00 AM CT

MORNSEM34: CASE BASED DISCUSSION OF MANAGEMENT IN PROGRESSIVE DYSTONIA AND ADVANCEMENTS IN TREATMENT

Larissa Pavone MD, Sarah Macabales DO, Jeffrey Raskin MS, MD, Ana-Marie Rojas MD

Learning Objectives:

1. Discuss medical management of challenging to treat dystonia
2. Understand surgical options available for dystonia
3. Better understand how tone may change over time
4. List scales used to measure dystonia

8:00 AM – 9:00 AM CT

MORNSEM35: THE WINDS OF CHANGE: INTEGRATING DIVERSITY INTO PEDIATRIC RESEARCH PARTICIPATION AND RECRUITMENT

Veronika Mak MSc, Lindsay Gissler BS, Alina Grimaldo, Julia Schiller BA

Learning Objectives:

1. Recognize potential barriers which prevent opportunities for research participation
2. Identify communication strategies for building effective community partnerships
3. Discuss family perspectives regarding research involvement and strategies to increase research engagement
4. Synthesize examples of efforts for broadening representation in research for historically marginalized communities (HMC)

8:00 AM – 9:00 AM CT

MORNSEM36: THE BABY MOVES SMARTPHONE APP: ADVANCING THE GENERAL MOVEMENTS ASSESSMENT IN RESEARCH AND CEREBRAL PALSY SCREENING

Amanda Kwong PhD, Colleen Peyton PT, DPT

Learning Objectives:

1. Apply the concepts from the Baby Moves smartphone app to clinical practice and/or research
2. Discuss the benefits and challenges of parent-collected data
3. Communicate effectively to parents who collect video recordings
4. Describe how screening of the general population may be possible using smartphone applications

8:00 AM – 9:00 AM CT

MORNSEM37: USE OF WEARABLE SENSORS FOR THE ASSESSMENT OF THE UPPER LIMB IN CHILDREN WITH CEREBRAL PALSY

Giuseppina Sgandurra MD, PhD, Silvia Filogna PhD, Elena Beani PT, PhD, Giuseppe Prencipe PhD

Learning Objectives:

1. Upon completion, participants will be able to understand the importance of the use of technologies in children healthcare
2. Upon completion, participants will be able to use wearable sensors in children
3. Upon completion, participants will be able to identify the most appropriate type of wearables to use
4. Upon completion, participants will be able to understand the relevance of AI algorithms for supporting the clinicians in upper limb assessment

9:00 AM – 9:30 AM CT

Coffee Break

WEDNESDAY

9:30 AM – 11:15 AM CT

FREE PAPER SESSIONS I-L

Free Paper Session I: Early Detection and Intervention

9:30 AM – 9:37 AM CT

I1: Two-Year Outcomes of Infants Admitted to a Neonatal Intensive Care Unit with Risk Factors for Cerebral Palsy in Bangladesh

Anna te Velde BAppSc(Pthy); PhD, Tasneem Karim MBBS, MPH, PhD, Annabel Webb MRes, Saifuddin Ahmed, Mohammad Shafiqul Islam, Iskander Hossain, Catherine Morgan PhD, Iona Novak PhD, Khandaker Gulam PhD, Nadia Badawi PhD

9:38 AM – 9:45 AM CT

I2: Early Spontaneous Movements in the First Months of Life and Developmental Outcomes At Later Age Infants Born to Mothers with Gestational Diabetes Mellitus

Bilge Nur Yardimci Lokmanoglu PhD, Akmer Mutlu PhD

9:46 AM – 9:53 AM CT

I3: Cerebral Palsy Diagnosis in BC: An Exploration of Factors Impacting Diagnostic and Rehabilitation Services

McIntosh Taylor, Ash Sandhu BSc, Vivian Wong BA, Ram Mishaal MD

9:54 AM – 10:01 AM CT

I4: Mini-SCALE: Selective Control Assessment of the Lower Extremity in Infants and Young Children: Evidence of Content and Construct Validity

Loretta Staudt PT,MS, Barbara Sargent PhD, PT, Eileen Fowler PhD, PT

10:02 AM – 10:09 AM CT

I5: Prediction of Adverse Neurodevelopmental Outcomes in a State-Wide Early Detection Network (Qedin-Cp)

Carly Luke MPaedPhys, BPhy, Lynda McNamara BPhy Hons, Morgan Carlton PhD, Christine Finn BPT, Sarah Gibson BPT, Kym Morris BPT, Bernadette Shannon B.Occ.Thy, Ellena Oakes B.Occ. Thy, Anya Gordon MPaedPhys, MPhyStudies, BS (Hons), Rachel Thomas BPT, Joanne George PhD BPT, Megan Kentish B.Phy: Grad Cert Pthy (paeds) T, Robert Ware PhD, Roslyn Boyd PhD

10:21 AM – 10:28 AM CT

I6: Infants At High Risk of Spastic Cerebral Palsy Demonstrate Decreased Selective Leg Joint Control as Early as 3 Months of Age

Barbara Sargent PhD, PT, Kathryn Havens PhD, Masayoshi Kubo PhD, PT, Tai-Wei Wu MD

10:29 AM – 10:36 AM CT

I7: The Alberta Infant Motor Scale as a Measure of Gross Motor Abilities After Early Complex Cardiac Surgery: Scores, Predictive Validity, and Prediction from Demographic and Surgical Variables

Rebecca Baril MD, Ari Joffe BMSc, MD, John Andersen MD, FRCPC, Julie Sorenson MPT, Sara Khademioureh MS, Irina Dinu PhD, Charlene Robertson MD

10:37 AM – 10:44 AM CT

I8: BabyOSCAR Score at 3 Months Predicts Gmfc Level at Age 2, in Infants with Spastic CP

Colleen Peyton PT, DPT, David Aaby MS, Vanessa Barbosa OTR, CNT, PhD, Raye-Ann DeRegnier MD, Arend Bos PhD MD, Theresa Moulton PT, DPT, PhD

10:45 AM – 10:52 AM CT

I9: Accuracy of Early Markers to Predict Motor Severity, Type and Topography Classifications of Cerebral Palsy in Infants: A Systematic Review

Anna te Velde BAppSc(Pthy); PhD, Iona Novak PhD, Nadia Badawi PhD, Megan Finch-Edmondson PhD, BSc (Hon), Madison Paton PhD, Ashleigh Hines PhD, Esther Tantsis MBBS, BMedSci, DCH, PhD, FRACP (Neurology), Alexandra Griffin PhD, Georgina Henry BPsych (Hons), Maria Mc Namara BAppPsych, MPsych, PhD, Emma Stanton BHLthSc/MOT, Monica Toohey BPhysio, Annabel Webb MRes, Lynda McNamara BPhy Hons, Catherine Morgan PhD

10:53 AM – 11:00 AM CT

I10: Use of Parent's Observations of Social Interactions (POSI) To Screen for Autism in a High-Risk Infant Follow-Up Program

Lydia Schneider MD, Aarabhi Rajagopal MD, Robin Manus BS, Sharon Veis MA, Raye-Ann DeRegnier MD

Free Paper Session J: Orthopedics

9:30 AM – 9:37 AM CT

J1: Efficacy of a Multimodal Surgical Site Injection in Pediatric Patients with Cerebral Palsy Undergoing Hip Reconstruction: A Multi-Center Randomized Controlled Trial

Danielle Greig MD, Christina Sun MPH, Daniel McBride BS, Bailey Young DO, Vineeta Swaroop MD, Rachel Thompson MD

9:38 AM – 9:45 AM CT

J2: Flexibility Studies in Neuromuscular Scoliosis: A Comparison of Predictive Ability of Three Radiographic Techniques

Jenny Zheng BS, Stuart Mitchell MD, David Spiegel MD, Christine Goodbody MD, Keith Baldwin MD

9:46 AM – 9:53 AM CT

J3: Bone Complications of Pamidronate Therapy in Children with Cerebral Palsy: A Retrospective Series

Freeman Miller MD, Luiz Silva MD, Burak Kaymaz MD, Yusuke Hori MD, Kenneth Rogers PhD, Arianna Trionfo MD, Richard Bowen MD, Jason Howard MD, Michael Shrader MD

9:54 AM – 10:01 AM CT

J4: Muscle Strength, Muscle Volume and Muscle Stiffness in High Functioning Children with Cerebral Palsy

Alexandra Palmcrantz, Eva Pontén MD, PhD, Antea Destro MSc, Ferdinand von Walden MD, PhD, Ruoli Wang PhD, Cecilia Lidbeck PhD

Program & Events — Wednesday, September 13, 2023

10:02 AM – 10:09 AM CT

J5: Posterior Instrumented Fusion to L5 versus to Pelvis in Cerebral Palsy Associated Neuromuscular Scoliosis: A Systematic Review of Radiographic and Functional Outcomes
Patrick Thornley FRCSC, ABOS Part I, Ali Pirshahid MD, Suken Shah MD, Peter Gabos MD, M. Wade Shrader MD, Jason Howard MD

10:21 AM – 10:28 AM CT

J6: Does Social Deprivation Affect Severity of Hip Subluxation in Cerebral Palsy?
 Kevin Orellana BS, Rachel Lenhart MD, Daniel Yang MS, Keith Baldwin MD, Christine Goodbody MD

10:29 AM – 10:36 AM CT

J7: Hip Displacement After Triradiate Cartilage Closure in Ambulatory Cerebral Palsy: Who Needs Continued Radiographic Surveillance?
 Amelia Lindgren MD, Kenneth Rogers PhD, Michael Shrader MD, Freeman Miller MD, Jason Howard MD

10:37 AM – 10:44 AM CT

J8: Medial Column Soft Tissue Imbrication with Internal Brace Augmentation Following Lateral Column Lengthening in the Cerebral Palsy Population with Pes Planovalgus Foot Deformities: A Novel Indication
Sean Tabaie MS MD

10:45 AM – 10:52 AM CT

J9: Role of Pelvic Osteotomy in Cp Hip Displacement
Jae Jung Min MD, Soon-sun Kwon PhD, Dae Hyun Kim MD, Chin Youb Chung MD, Ki Hyuk Sung MD, Hee Joung Joung PhD, Moon Seok Park MD

10:53 AM – 11:00 AM CT

J10: The Foot Posture Index: Are Three Components as Good as Six? (10)
 Susan Rethlefsen DPT, Alison Hanson MS PT, Sylvia Ounpuu MSc, Jennifer Rodriguez-MacClintic PT, DPT, Kristan Pierz MD, Tishya Wren PhD

Free Paper Session K: Health Service

9:30 AM – 9:37 AM CT

K1: Barriers to Access to Gait Analysis for Children and Adolescents (1)
Melissa Bent MD, Susan Rethlefsen DPT, Veronica Beltran BS, Tishya Wren PhD

9:38 AM – 9:45 AM CT

K2: Out-of-Pocket Costs of Cerebral Palsy for People with Cerebral Palsy and Their Families
Georgina Henry BPsych (Hons), Sarah McIntyre PhD, Annabel Webb MRes, Fiona Garrity, Sophie Marmont, James Espie, Alison Pearce PhD, Claire Galea MS, Nadia Badawi PhD

9:46 AM – 9:53 AM CT

K3: Outpatient Encounters, Continuity of Care and Unplanned Hospital Care for Children and Young People with Cerebral Palsy in New South Wales, Australia
Simon Paget MBBS, Sarah McIntyre PhD, Francisco Schueuer PhD, Tanya Martin MPH, Louise Sellars MSN, Heather Burnett MD, Sophie Price MPT, Natasha Nassar PhD

9:54 AM – 10:01 AM CT

K4: The Complexity of Decision-Making with a Young Child with Cerebral Palsy: Understanding Mothers' Lived Experiences Using a Phenomenological Approach
Meghan Munger MPH, Rhonda Cady PhD, RN, Timothy Beebe PhD, Nathan Shippee PhD, Tom Novacheck MD, Beth Virnig PhD, MPH

10:02 AM – 10:09 AM CT

K5: Effectiveness of Family Centered Care through Capacity Building of Caregivers of Children with Cerebral Palsy on their Quality of Life and Family Empowerment
Deepalaxmi Poojari Master in Paediatric Physiotherapy(MPT), PhD candidate, Shashikiran Umakanth MD, G Arun Maiya PhD, Bhamini Rao PhD, Sonia Khurana PhD, Marie Brien MPT, Hitesh Shah MD, Radhika Attal MPT

10:21 AM – 10:28 AM CT

K6: Implementation of Clinical Practice Guidelines of Eye-Gaze Control Technology for People with Cerebral Palsy: Barriers and facilitators identified by clinicians
 Breyana Stevens-Hofer BS, Petra Karlsson PhD, Michelle McInerney PhD, Margaret Wallen PhD

10:29 AM – 10:36 AM CT

K7: Health Information Behavior of People with Cerebral Palsy
Ira Jeglinsky Kankainen Associate professor, Jonas Tana PhD

10:37 AM – 10:44 AM CT

K8: Use Of Primary Healthcare Services Among Children and Youths with Cerebral Palsy in Norway, A Registry-Based Study
Stine Johansen BS, Guro Andersen PhD, Stian Lydersen PhD, Runa Kalleson PhD, Sandra Hollung PhD

10:45 AM – 10:52 AM CT

K9: Variability of State-Based Early Intervention Eligibility Criteria in Ability to Predict Neuromotor Impairments in Nicu Graduates
 Sophie Frankenthal, Raye-Ann DeRegnier MD, Lynn Boswell MS, Sarah Heigel MSN

10:53 AM – 11:00 AM CT

K10: Preliminary Effectiveness of an Electronic Patient-Reported Outcome Measure and Decision Support Tool on Early Intervention Service Quality
Mary Khetani ScD, OTR/L, Vera Kaelin ScD, Sabrin Rizk PhD, Marlene Angulo, Zurisadai Salgado BS, Yi-Fan Chen PhD, Vivian Villegas OTD, MS, OTR/L, Jodi Dooling-Litfin PhD, Natalie Leland PhD, Elizabeth Lerner Papautsky PhD, Natalie Murphy MPH, Beth McManus PhD, MPH

WEDNESDAY

Program & Events — Wednesday, September 13, 2023

Free Paper Session L: Upper Extremity/Hand

9:30 AM – 9:37 AM CT

L1: Limited Throw Distance was Associated with Limited Upper Extremity Power in Children with Cerebral Palsy

Cory Cribb MS, Sarah Creveling MS, Katelyn Jackson BS, Christopher Modlesky PhD, Noelle Moreau PhD, PT, Li Li PhD, Gavin Colquitt PhD

9:38 AM – 9:45 AM CT

L2: Effects of Non-Invasive Brain Stimulation on Upper Extremity Outcomes in Children with Cerebral Palsy: A Systematic Review and Meta-Analysis

Nicole Hawkins MS, OTR/L, Yu Gu PhD, MPH, Kathleen Friel PhD, Andrew Gordon PhD

9:46 AM – 9:53 AM CT

L3: HABIT-ILE Australia: Randomised Trial of Hand-Arm Bimanual Intensive Training Including Lower Extremity for Children with Bilateral Cerebral Palsy

Leanne Sakzewski PhD, Bachelor Occupational Therapy, Yannick Bleyenheuft PhD, Iona Novak PhD, Catherine Elliott PhD, Sarah Reedman PhD, Catherine Morgan PhD, Kerstin Pannek PhD, Jürgen Frapp PhD, Robert Ware PhD, Roslyn Boyd PhD

9:54 AM – 10:01 AM CT

L4: Effects of Upper Extremity Robotic Rehabilitation on Upper Extremity Functions and Gait Parameters in Individuals with Cerebral Palsy

Mustafa BURAK MSc, Sinem ERTURAN MSc, Murat AKINCI MSc, Ezgi AYDIN ÖZARSLAN PhD, Evren YAŞAR PhD, Bülent ELBASAN PhD

10:02 AM – 10:09 AM CT

L5: The Effects of Action Observation Therapy and Video-Based Game Therapy on Upper Extremity Functions in Children with Unilateral Cerebral Palsy

Sinem ERTURAN MSc, Mustafa BURAK MSc, Bülent ELBASAN PhD

10:21 AM – 10:28 AM CT

L6: Comparing Intensity and Duration of Habitual Dominant and Non-Dominant Arm Activity among Neurotypical Children and Children with Hemiplegic Cerebral Palsy (HCP)

Nidhi Amonkar BS, Vaishnavi Shahane BS, Deborah Bubela PhD, Patrick Kumavor PhD, Kristin Morgan PhD, Sudha Srinivasan PhD

10:29 AM – 10:36 AM CT

L7: The Effect of Motor Learning Based Upper Extremity Interventions on the Contribution of the Trunk to Upper Extremity Movements in Children with Unilateral Spastic Cerebral Palsy

Dalina Delfing MS, Shivakeshavan Ratnadurai-Giridharan PhD, Kathleen Friel PhD, Andrew Gordon PhD

10:37 AM – 10:44 AM CT

L8: Long-term effects of Hand-Arm Bimanual Intensive Training on Real-world Bimanual Performance in Children with Unilateral Cerebral Palsy.

Shailesh Gardas PT, Casey Burroughs DPT, Grant Kirkman BS Exercise Physiology, Christine Lysaght DPT, Holly Holland OTR/L, Swati Surkar PT, PhD

10:45 AM – 10:52 AM CT

L9: Trajectory of Development of the Impaired Hand During the First 15 Months of Life in Infants with Unilateral Cerebral Palsy (UCP)

Leanne Sakzewski PhD, Bachelor Occupational Therapy, Robert Ware PhD, Susan Greaves PhD, Andrea Burgess PhD, Bernadette Shannon B.Occ.Thy, Ann-Christian Eliasson PhD, Roslyn Boyd PhD

10:53 AM – 11:00 AM CT

L10: Brain Activity At Rest Explains Bimanual Hand Function in Children with Unilateral Cerebral Palsy

Rachel Vaughn MOT,OTR/L, Jasper Mark BS, Rachana Gangwani PT, MS, Holly Holland OTR/L, Deborah Thorpe PT, PhD, Joshua Alexander MD, Swati Surkar PT, PhD, Jessica Cassidy DPT, PhD

11:30 AM – 12:30 PM CT

Product Theater

First Come, first served. Lunch provided

12:45 PM – 1:45 PM CT

General Session

Chambers Family Lifespan Lecture

Closing Remarks

2024 Committee Introduction

2:00 PM – 4:00 PM CT

Mini Symposia 27-39

2:00 PM – 4:00 PM CT

MINISYP27: ENSURING A MEDICAL HOME FOR CHILDREN AND YOUTH WITH CEREBRAL PALSY: MULTIDISCIPLINARY TAKEAWAYS FROM NEW AAP & AACPDGM GUIDELINES

Kristina Malik MD, Garey Noritz MD, Lynn Davidson MD, Kilby Mann MD, Nancy Murphy MD

Learning Objectives:

1. Discuss key recommendations from the new guidelines.
2. Implement best practices into their clinical care and identify toolkits that aid care.

Provide general preventive care guidance for children with CP.

Ensure multidisciplinary best care for children with CP.

2:00 PM – 4:00 PM CT

MINISYMP28: NEURO-ORTHOAEDIC JOURNAL CLUB: TOP 10 ARTICLES IN THE LAST YEAR RELATING TO THE ORTHOPAEDIC MANAGEMENT OF CHILDREN WITH NEUROMUSCULAR DISORDERS

Amanda Whitaker MD, Monica Payares-Lizano MD, Benjamin Shore MD, MPH, FRCSC, Jon Davids MD, Vedant Kulkarni MD

Learning Objectives:

1. Introduction to a standardized format for the critical analysis of scientific articles from the medical literature.
2. Be familiar with the most significant recent advances in the orthopaedic management of children with neuromuscular disorders.
3. Incorporate new techniques and technologies into clinical practice.
4. Appreciate current research trends in this area and be inspired to make a contribution to the body of knowledge!

2:00 PM – 4:00 PM CT

MINISYMP29: LET'S LOOK AT THE LIMB: EXPERT CONSENSUS INFORMED BY THE DELPHI PROCESS FOR LOWER EXTREMITY SURGERIES PERFORMED IN AMBULATORY CHILDREN AND ADOLESCENTS WITH CEREBRAL PALSY

Kristan Pierz MD, Unni Narayanan MBBS, MSc, FRCSC, Thomas Dreher MD, Jason Rhodes MD, Jeffrey Shilt MD, Robert Kay MD

Learning Objectives:

1. Upon completion, participant will be able to describe the Delphi process
2. Discuss where consensus does/does not exist for common procedures performed on the long bones, foot, and ankle for ambulatory children with cerebral palsy
3. Improve confidence in surgical recommendations and execution
4. Identify where additional work is needed to justify surgical recommendations

2:00 PM – 4:00 PM CT

MINISYMP30: TASK-SPECIFIC TRAINING IN CEREBRAL PALSY: FROM JARGON TOWARDS EVIDENCE AND KEY INGREDIENTS

Ashleigh Hines PhD, Iona Novak PhD, Anna te Velde BAppSc(Pthy); PhD, Leanne Sakzewski PhD, Bachelor Occupational Therapy, Michelle Jackman PhD, Catherine Morgan PhD, Alexandra Griffin PhD

Learning Objectives:

1. Identify the key ingredients of task-specific intervention approaches
2. Describe the various evidence base using the traffic light system
3. Identify effective evidence-based interventions from the major clinical practice guidelines
4. Understand how to engage children to provide outcomes that matter to children

2:00 PM – 4:00 PM CT

MINISYMP31: TRANSLATING RESEARCH INTO CLINICAL CARE: USING NEUROMUSCULAR ELECTRICAL STIMULATION TO IMPROVE FUNCTION FOR INDIVIDUALS WITH CEREBRAL PALSY

Kelly Greve PT, DPT, PhD, Jessica Rose PhD, Kornel Schadt MD, Christopher Joseph DPT

Learning Objectives:

1. Recognize concepts, technologies, and protocols for the clinical application of NMES as a strengthening intervention for individuals with CP.
2. Understand protocols for stimulation to the muscle fibers as it relates to electrical impulses.
3. Identify clinical applications of NMES to alter muscle tone and enhance function in individuals with CP.
4. Familiarize and implement NMES that can be used for individuals with CP in the clinical setting.

2:00 PM – 4:00 PM CT

MINISYMP32: EARLY DETECTION OF INFANTS AND YOUNG CHILDREN AT HIGH RISK OF CEREBRAL PALSY IN LOW RESOURCE SETTINGS-THE BORN-TO-GET-THERE-CONSORTIUM

Roslyn Boyd PhD, Katherine Benfer PhD, Andrea Guzzetta PhD, Nana Tashivilli PhD, Gopi Kitnasamy BS, Physiotherapy, Asis Ghosh MSc, Carly Luke MPaedPhys, BPhy

Learning Objectives:

1. Upon completion, Participants will understand the best inclusion criteria, best accurate measures with clinical utility for surveillance for Cerebral Palsy and other like conditions in Low Resource Settings.
2. Upon completion, participants will understand the best processes for training, reliability calibration and implementation of accurate measures for surveillance for Cerebral Palsy and other like conditions in Low Resource Settings.
3. Upon completion, participants will understand the various cultural considerations for surveillance for Cerebral Palsy and other like conditions in Low Resource Settings.
4. Upon completion, participants will understand the barriers and facilitators to implementation of surveillance for Cerebral Palsy in Low Resource Settings.

2:00 PM – 4:00 PM CT

MINISYMP33: ADAPTIVE SPORT OPPORTUNITIES, PEER INCLUSION, AND TRANSITION INTO COMMUNITY FITNESS FOR PEOPLE WITH CEREBRAL PALSY (CP)

Jennifer Miros MPT, Julie Grassi PT, M.Ed., Sarah Moran DPT, Kelley Newman DPT, PCS, HPCS

Learning Objectives:

1. Demonstrate an understanding of how to adapt sports for individuals with CP or other COD.
2. Demonstrate an understanding of how to adapt a triathlon for individuals with CP or other COD.
3. Demonstrate an understanding of how to identify community stake holders to participate in planning and funding of community adaptive sports programs and triathlons.
4. Describe resources and equipment needed to assist with making a triathlon accessible to individuals with CP or other COD.

2:00 PM – 4:00 PM CT

MINISYMP34: MORE THAN A GAIT LAB: MOTION ANALYSIS TO GUIDE INTERPROFESSIONAL CARE AND OPTIMIZE OUTCOMES ACROSS THE LIFESPAN

Anna McCormick MD FRCPC, Tasos Karakostas MPT, PhD, John Henley PhD, Jon Davids MD, Hana Alazem MD, Albert Tu FRCS(C), Amanda Rande BSc Kinesiology

Learning Objectives:

1. Appreciate the evolving role of motion analysis in facilitating optimal care and function in individuals with childhood acquired disabilities across the lifespan.
2. List new uses of the gait/motion analysis laboratory.
3. List new tools available to assess motion, measure outcomes and optimize care.
4. Participate in thought provoking discussions regarding optimizing the use of a motion analysis lab, assessing upper extremity function and the role of new tools available for motion analysis.

2:00 PM – 4:00 PM CT

MINISYMP35: INCREASING HEALTHCARE ACCESS: DEVELOPMENT OF AN ACCESSIBLE NEUROPSYCHOLOGICAL BATTERY FOR INDIVIDUALS WITH SEVERE MOTOR AND SPEECH IMPAIRMENT

Petra Karlsson PhD, Ingrid Honan BPsych (Hons), MCLinNeuroPsych, PhD, Jacqueline Kaufman PhD, Seth Warschausky Ph.D.

Learning Objectives:

1. Upon completion, participant will be able to recognize when standardized assessment procedures are limiting the full participation of a child leading to a likely underestimate of cognitive skills and abilities.
2. Upon completion, participant will have had hands-on experience of using switch and eye-gaze technology to select answers in tests.
3. Upon completion, participant will be able to evaluate specific tests and subtests that might be most appropriate for children with motor impairment.
4. Upon completion, participant will have had the opportunity to discuss case studies that illustrate the theoretical elements in this session.

2:00 PM – 4:00 PM CT

MINISYMP36: CLINICAL PROBLEM SOLVING IN THE CARE OF NONVERBAL ADULTS WITH CEREBRAL PALSY

Cristina Sarmiento MD, Mary Schmidt DO, Heidi Haapala MD, Jensine Clark MD

Learning Objectives:

1. Incorporate a comprehensive differential diagnosis into the development of an action plan for adults with CP with pain, functional changes, or behavioral changes.
2. Describe diagnostic and therapeutic considerations for common rehabilitation-related issues in adults with CP.
3. Understand the unique role of the caregiver in caring for adults with CP and how to effectively incorporate the caregiver perspective.
4. Explain the importance of considering social determinants of health and assessing barriers to care in caring for adults with CP.

2:00 PM – 4:00 PM CT

MINISYMP37: MYELOMENINGOCELE FUNCTIONAL CLASSIFICATION (MMFC) – A NEW COMPREHENSIVE VIEW OF FUNCTIONALITY IN CHILDREN WITH SPINA BIFIDA

Jill Larson MD, Vineeta Swaroop MD, Ana-Marie Rojas MD, Nicole Hroma DPT, Sara Beyler CO, LO, Tasos Karakostas MPT, PhD

Learning Objectives:

1. Describe the new functional classification of spina bifida (MMFC) as it relates to manual muscle testing, functional motor scale and the use of assistive devices
2. Analyze gait patterns or functional movements in spina bifida patients from each of the different MMFC functional levels and understand the rationale for use of assistive devices
3. Understand and apply orthotic considerations in spina bifida patients from each of the different MMFC functional levels
4. Define the orthopedic surgery considerations and interventions in spina bifida patients from each of the different MMFC functional levels

2:00 PM – 4:00 PM CT

MINISYMP38: IMPROVING THE HEALTH AND WELL-BEING OF ADULTS WITH CEREBRAL PALSY: INTERNATIONAL AND PERSONAL PERSPECTIVES

Rachel Byrne BS, Mark Peterson PhD, Ashley Whaley M.S., CCC-SLP, Jennifer Ryan MSc, PhD

Learning Objectives:

1. Understand the risk of developing noncommunicable diseases including mental health outcomes in adults with CP.
2. Describe the pain phenotype and treatment disparities faced by adults with CP.
3. Define issues pertaining to unmet rehabilitation and medical needs in adults with CP globally.
4. Expand upon advocacy efforts that improve stakeholder engagement in clinical care and research.

2:00 PM – 4:00 PM CT

MINISYMP39: COMMON DATA MODELS AND RESEARCH DATA SOURCES: THE PRACTICAL REALITIES OF LEVERAGING RICH DATA SETS TO ACCELERATE DISCOVERY

Paul Gross BA, Sarah McIntyre PhD, Yana Wilson, Theresa Sukal-Moulton PT, DPT, PhD, Michael Kruer MD, Carolina Mendoza-Puccini MD

Learning Objectives:

1. Understand the large sources of data to support CP research and how to access them.
2. Understand scope of existing CDE definitions from NINDS and ICPGC
3. Describe practical realities of using existing datasets and new public use data
4. Establish the priorities for overcoming barriers to use.

2:00 PM – 6:00 PM CT

Board of Directors Meeting

Exhibit Hall

EXHIBIT HALL HOURS

Sunday Sept 10: Welcome reception 6-8pm

Monday Sept 11: Continental breakfast 7-8am, coffee break at 9:15- 9:30am and 3:30 -4pm

Tuesday Sept 12: Continental breakfast 7-8am, coffee break at 9:00- 9:30am and 3:30 -4pm

Wednesday Sept 13: Continental breakfast 7-8am, coffee break at 9:00- 9:30am

