



AACPD

75th ANNUAL MEETING



Diamond Jubilee Meeting

**JOIN US
VIRTUALLY
OCTOBER 6-9, 2021**



PRELIMINARY PROGRAM

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AACPDM

Welcome to the American Academy for Cerebral Palsy and Developmental Medicine (AACPDM)'s Diamond Jubilee Meeting!

Enjoy meeting a dynamic, multi-disciplinary group of decision makers virtually. This is the only meeting where you can reach a physical therapist who heads a program at a major hospital, the chief physician of the neuromotor program at the hospital, an occupational therapist who purchases equipment for a clinic, and a neurologist, physiatrist, or developmental pediatrician who researches the effectiveness of a new drug therapy.

To be conducive to a virtual meeting, one of the key modifications of the meeting format this year is the introduction of Mini-Symposia to replace Breakfast Sessions and Instructional Courses. Mini-Symposia are paired with and 'introduce' free paper sessions based on similar topics. We hope you enjoy the wealth of learning opportunities and CME/CEU's due to the opportunity to access content live during the meeting dates, and at your convenience on-demand after those dates and until September, 2022!

The Scientific Program Committee is pleased to offer a Plenary Session on Healthcare Disparity and Diversity, Equity and Inclusion. The goal is to dispel myths and better understand demographics, the most important determinants of health, and the connection between poverty, disability, and race. Additionally, the Scientific Program Committee was excited about the quality and quantity of submissions for the 75th Annual Meeting! The 2021 Program is full of outstanding research that corresponds specifically to the call for abstract submissions directly addressing the topics:

- diversity, equity and inclusion
- early detection and intervention
- adapted sports and participation
- genetics in developmental disabilities
- innovation and technology

We hope you join us during the innovative and exciting fun social activities held throughout our live program. Enjoy socializing with other participants during a beverage mixology training, join a trivia team to test your knowledge of our Academy, or take a quick energizing break courtesy of the AACPDM's Adapted Sports and Recreation Committee's virtual "Let's Move."

The past year has been challenging for everyone; however, the AACPDM continues to be forward looking. The "teamwork" mind-set of our members solidifies a worldwide network that provides the best outcomes for patients. This team will continue to support each other through these challenging times. It was for this reason and because the meeting is being hosted in the French speaking Quebec City that the theme for this year's AACPDM meeting is "On y Val!", a French phrase meaning "Let's Go!". It embodies how AACPDM is ready to emerge from these difficult times, together.

On y va! Let's go!



Tom Novacheck, MD
First Vice President



Anna McCormick, MD,
FRCP(C)



Julieanne Sees, DO, FAAOS,
FAOA, FAOAO

Scientific Program Committee Co-Chairs

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meetings@aacpdm.org | +1 (414) 918-3014 | www.aacpdm.org

Wednesday, October 6, 2021

10:00 am – 2:00 pm	Pre-Conference Sessions
	PC1: GRADE Training (TICKET)
	PC2: How to Establish a Research Program Focused on Cerebral Palsy (TICKET)
	PC3: Cerebral Palsy Lower Extremity Surgical Indications: Expert Consensus Informed by the Delphi Process (TICKET)
3:00 pm – 7:00 pm	PC4: Practical Approaches to Complex Care: Care of Medically Complex Non-Verbal Children with Suspected Pain Behaviors (TICKET)
	Pre-Conference Sessions
	PC1: GRADE Training (TICKET)
	PC2: How to Establish a Research Program Focused on Cerebral Palsy (TICKET)
7:00 pm – 8:00 pm	PC5: Enhancing Mental Health and Well-being in Adolescents and Adults with Cerebral Palsy (TICKET)
	PC6: Development and Analysis of Upright Stability (TICKET)
	PC7: Hammersmith Infant Neurological Examination for Telehealth: A Developmental Surveillance Tool (TICKET)
	PC8: Ultrasound (TICKET)
Welcome Reception	

Thursday, October 7, 2021

8:00 am – 12:00 pm	GRADE Training (continued) (TICKET)
12:00 pm – 1:00 pm	AACPDM Membership Business Meeting (members only)
1:00 pm – 2:15 pm	Mini Symposia 1-5
2:15 pm – 2:45 pm	Session Break Networking Discussions <i>Let's Move!</i>
3:00 pm – 5:00 pm	Free Paper Sessions A-D A: Basic Science/Tech B: Diversity, Equity and Inclusion/Developmental C: Ortho D: Therapy/Tone
5:00 pm – 5:30 pm	Networking Discussions <i>Let's Move!</i>
5:30 pm – 7:00 pm	General Session
7:00 pm – 8:00 pm	Poster Tours

Friday, October 8, 2021

10:00 am – 12:00 pm	Adults and Aging SIG
12:00 pm – 1:00 pm	International Networking Luncheon
1:00 pm – 2:15 pm	Mini Symposia 6-10
2:15 pm – 2:45 pm	Session Break Networking Discussions <i>Let's Move!</i>
3:00 pm – 5:00 pm	Free Paper Sessions E-H E: Complex Care/Early Development F: Gait G: Ortho: Hip H: Technology
5:30 pm – 7:00 pm	General Session
7:00 pm – 10:00 pm	Networking Dinner (TICKET)

Saturday, October 9, 2021

11:00 am – 1:00 pm	Complex Care SIG
1:00 pm – 2:15 pm	Mini Symposia 11-15
2:15 pm – 2:45 pm	Session Break Networking Discussions <i>Let's Move!</i>
3:00 pm – 5:00 pm	Free Paper Sessions I-L I: Early Diagnosis J: Gait K: Lifespan L: Therapy/Upper Extremity
5:00 pm – 5:30 pm	Networking Discussions <i>Let's Move!</i>
5:30 pm – 7:00 pm	General Session

Sunday, October 10, 2021 – Thursday, September 1, 2022

On-Demand	Mini Symposia 16-31
All Annual Meeting Sessions Available On-Demand.	

*All sessions are scheduled in Eastern Daylight Time Zone (EDT).
If you have questions, please use a timezone converter like this one:
<https://www.timeanddate.com/worldclock/converter.html>

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American Academy for Cerebral Palsy and Developmental Medicine

AACPDM 75th Annual Meeting

October 6-9, 2021

Future Annual Meetings

• 76th Annual Meeting

September 21-24, 2022

Mirage Las Vegas

Las Vegas, Nevada

• 77th Annual Meeting

September 10-13, 2023

Chicago Marriott Magnificent Mile

Chicago, Illinois

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

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 and language pathologists, orthotists, dietitians, rehabilitation engineers, kinesthiologists, nurses, psychologists, special education teachers and educators. *Note: All levels of skill will be addressed.*

AACPDM Vision

A global leader in the multidisciplinary scientific education for health professionals and researchers dedicated to the well-being of people with childhood-onset disabilities.

AACPDM Mission

Provide multidisciplinary scientific education for health professionals and promote excellence in research and services for the benefit of people with cerebral palsy and childhood-onset disabilities.

Online Self-Reporting System for CME / CEU / CE Credits

After the Combined AAPDM 75th Annual Meeting, all registrants will receive an instructional email about reporting and printing out their own continuing education certificates. The online self-reporting will be open by no later than November 2021. To verify your correct email address, please visit the registration desk before you leave the meeting. *Please note: In self-reporting, if you miss more than 15 minutes of a session/course, it is not considered full attendance, and cannot be claimed.*

Certificate of Attendance

All attendees may claim a Certificate of Attendance.

Accreditation Statement

In support of improving patient care, this activity has been planned and implemented by Amedco LLC and The American Academy for Cerebral Palsy and Developmental Medicine (AAPDM). Amedco LLC is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.



Physicians (ACCME)

Amedco LLC designates this live activity for *AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Physical Therapists / Physical Therapy Assistants

- The American Academy for Cerebral Palsy and Developmental Medicine is recognized as an Approval Agency by the Physical Therapy Board of California. http://ptbc.ca.gov/licensees/cc_agency.shtml
- This activity has been approved by the Texas Board of Physical Therapy Examiners for CCUs for PTS and PTAs.

Occupational Therapists / Occupational Therapy Assistants

The American Academy for Cerebral Palsy and Developmental Medicine is an Approved Provider of Continuing Education by the American Occupational Therapy Association (AOTA) #6379. Occupational Therapists and Occupational Therapy Assistants will be able to claim AOTA CEU's. All sessions during the AAPDM 75th Annual Meeting are available for credit. *Note: The assignment of AOTA CEUs does not imply endorsement of specific course content, products, or clinical procedures by AOTA.*

Nursing Credits

The American Academy for Cerebral Palsy and Developmental Medicine (AAPDM) is a Provider approved by the California Board of Registered Nursing, Provider # CEP 14720, for Contact Hours.

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
- * Care Pathways
- Communications
- Community Council
- Complex Care
- Education
- International Affairs
- Life Span Care
- Membership
- Nominating
- Publications
- Research
- Scientific Program

Member Events at the Meeting

Thursday, October 7, 2021

12:00 pm – 1:00 pm EDT

AACPDM Annual Membership Business Meeting

Current members only.

COMMITTEE	CHAIR
Adapted Sports & Recreation Chair:	Zachary Boychuck, PhD, OT
Advocacy Chair:	Kelly Pham, MD
Awards Chair:	Lane Wimberly, MD
Care Pathways Chair:	Kat Kolaski, MD
Communications Chair:	Sruthi Thomas, MD
Complex Care Chair:	Emily Goodwin, MD
Education Chair:	Didem Inanoglu, MD
International Affairs Chair:	Nigar Dursun, MD
Lifespan Care Chair:	Prue Morgan, PhD
Membership Chair:	Deidre McDowell, PT, PCS
Publications Chair:	Unni Narayanan, MBBS, MSc, FRCS(C)
Research Chair:	Amy Darragh, OTR/L, PhD

Registration

Annual Meeting registration will be open online through May 1, 2022.

E-Poster

An E-Poster is an electronic version of the traditional paper poster in PowerPoint format, and is displayed on a monitor.

Attire

Attire for the educational sessions of the meeting is business casual.

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 sessions. 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.

SESSION EVALUATIONS

We need your feedback! As a dedicated learner during the AACPDm 75th 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 75th 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 75th 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 nonresearch 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.

2021 Scientific Program Overview

This year's program was developed from a submission total of 462 abstracts. All electronically submitted abstracts were independently rated by the multidisciplinary scientific program committee of 22 members (see page 4 of the program). The committee met in March 2021 to review the abstracts and finalize the program (e.g. Scientific paper or poster, mini symposia, on-demand mini symposia). Scientific papers and posters 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 2021 program includes:

- 120 Scientific Papers
- 78 Scientific Posters
- 38 Demonstration Posters
- 13 Clinical Observation/Single Case Study Posters
- 7 Pre-Conference Sessions
- 15 Mini Symposia
- 16 On-Demand Mini Symposia

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

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.



Richard L. Lieber, Ph.D.

Rick Lieber is a physiologist who earned his Ph.D. in Biophysics from U.C. Davis developing a theory of light diffraction that was applied to mechanical studies of single muscle cells. He joined the faculty at the University of California, San Diego in 1985 where he spent

the first 30+ years of his academic career, achieving the rank of Professor and Vice-Chair of the Department of Orthopaedic Surgery. He received his M.B.A. in 2013 and is currently Chief Scientific Officer and Senior Vice President at the Shirley Ryan AbilityLab and Professor of Physical Medicine & Rehabilitation and Biomedical Engineering at Northwestern University in Chicago, IL.

Dr. Lieber's work represents a translational approach, applying basic scientific principles to help patients who have experienced spinal cord injury, stroke, musculoskeletal trauma and cerebral palsy—an approach that is relevant to those who study biomechanics, rehabilitation and orthopaedic surgery. He has published almost 300 articles in journals ranging from the very basic such as *The Biophysical Journal* and *The Journal of Cell Biology* to clinical journals such as *The Journal of Hand Surgery* and *Clinical Orthopaedics and Related Research*.

Lieber was introduced to the field of cerebral palsy through the eminent surgeons Dr. David Sutherland and Dr. Jackie Perry, both of whom ran courses at the then Children's Hospital of San Diego. Lieber then teamed with Dr. Hank Chambers who, together, performed experiments to understand the structural and biological changes in muscle contractures in children with cerebral palsy.

In recognition of the clinical impact of his basic science studies, Dr. Lieber has been honored by the American Academy of Orthopaedic Surgeons (Kappa Delta Award; twice), the American Bone and Joint Surgeons (Nicolas Andry Award) the American College of Sports Medicine (Fellow), the Council for the International Exchange of Scholars (Fulbright Fellowship) and the American Society for Biomechanics (Borelli Award; Hay Award). He was also named a Senior Research Career Scientist from the Department of Veterans Affairs from which he has received continuous support since 1985.



Bernadette Gillick, PhD, MSPT, PT

Bernadette Gillick, PhD, MSPT, PT is an Associate Professor and Director of Neuromodulation at the Waisman Center, University of Wisconsin-Madison. Dr. Gillick earned her undergraduate degrees in Physical Therapy and Psychology at Marquette

University, an Advanced Master's Degree at Chicago Medical School and a PhD in Rehabilitation Science with a minor in Neuroscience from the University of Minnesota. Thereafter she completed a Fellowship in Randomized Behavioral Clinical Trials at the National Institutes of Health (NIH). She is an internationally respected expert on the use of innovative technologies and interventions in perinatal stroke and cerebral palsy from infancy to young adulthood. Her clinical research focus surrounds pediatric neuromodulation and rehabilitation in optimizing outcomes throughout the lifespan. Her current grant support includes AACPMC C-Progress award, and

NIH R01 and R21 awards investigating infant cortical and behavioral development after perinatal stroke and early brain injury using non-invasive brain stimulation, neuroimaging and neuromodulation interventions. Her work has been supported by over \$10M in international and national funding. Among other positions, she is an active member of the American Academy of Cerebral Palsy and Developmental Medicine and a global representative within the International Alliance of Academies of Childhood Disability. Her experience in diverse mentoring roles spans the last 30 years of her career including the Clinical Coordinator of Education at Loyola University/Rehabilitation Institute of Chicago, Clinical Instructor at the Institute of Latin American Concern in the Dominican Republic, Manager of Inpatient Rehabilitation at Providence Alaska Medical Center and in formal academic training and mentoring roles at Marquette University, Chicago Medical School, University of Alaska, Seattle University, University of Minnesota and University of Wisconsin.



Bradley Heaven

My name is Bradley Heaven. I was born with Non Verbal Spastic Cerebral Palsy, but I don't let it hold me back. I communicate using an Eye Tracker and a Surface Book 3. I graduated from Social Science from Dawson College in Montreal, Quebec. A few years ago,

my best friend / business partner Danny and I noticed it was hard to keep up with trending resources to assist people with disabilities. So, we decided to create a one stop shop for help people keep up. Our website has 7 different categories, Physical Disability, Cerebral Palsy, Autism, Down Syndrome, Deaf/Hard of Hearing, Blind/Visual Impairment, and the Elderly. Each of these categories have technology/gadgets to help daily life easier, Apps, Inspirational Videos, and other resources. We also review Adaptive products, do vlogs to break the stigmas surrounding Cerebral Palsy, and much more on YouTube. Our YouTube is allaccesslife, and our website is www.allaccesslife.org. Danny and I are running a marathon this fall to raise funds for All Access Life. Danny is pushing me 40 kms in my Josi Jogging Adaptive Stroller, and then Danny is going to transfer me in my Adaptive Walker and I'm going to finish the last 2.2km in my walker!!! No Limits!!!



Ben Philpot, Ph.D.

Dr. Ben Philpot is a Kenan Distinguished Professor in the Neuroscience Center and Department of Cell Biology & Physiology at the University of North Carolina. He earned his Ph.D. in psychobiology from Dr. Peter Brunjes at the University of Virginia and

performed a postdoctoral fellowship in the laboratory of Dr. Mark Bear at Brown University and M.I.T., where he made important contributions to our understanding of experience-dependent brain development. He is currently the Associate Director of the UNC Neuroscience Center and a member of the Carolina Institute for Developmental Disabilities, for which he helps direct a cross-disciplinary postdoctoral training grant for neurodevelopmental disorders. Dr. Philpot's current research seeks to understand the pathophysiology underlying monogenic neurodevelopmental disorders, and he uses this information

to develop small molecule and gene therapies to treat these disorders. His research focuses on early-stage development of treatments for Pitt-Hopkins, Dup15q, and Angelman syndromes. Dr. Philpot has made key therapeutic discoveries, including developing an approach to unsilence the epigenetically-repressed paternal UBE3A allele as a novel treatment strategy for Angelman syndrome. Dr. Philpot has >90 peer-reviewed scientific publications. He has advised prominent biotech and pharmaceutical companies, and serves on the scientific advisory committee for the Angelman Syndrome Foundation. He has won multiple awards, including the NARSAD Young Investigator Award, a Whitehall Foundation fellowship, and the Dr. Claudia Benton Award for Scientific Research, and is currently a SFARI Investigator of the Simons Foundation.



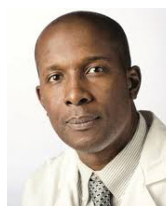
Margaret A. Turk, MD

Margaret A. Turk, MD is SUNY Distinguished Service Professor of Physical Medicine & Rehabilitation, Pediatrics, and Public Health & Preventive Medicine at SUNY Upstate Medical University (UMU). She is Vice Chairman of SUNY UMU Department of Physical Medicine & Rehabilitation (PMR), began and directs the PMR Pediatric Rehabilitation Medicine clinical program serving children and adults with childhood onset disabilities, and participated in developing the brain injury medical services program at Upstate and the Centers at St. Camillus. She has continuously promoted health and wellness for people with lifelong disabilities and the integration of disability education within medical school curricula locally and nationally, with presentations and publications.

Along with her clinical and education responsibilities, she has been active in research on life-long disability and health care accessibility issues, contributing peer-reviewed articles and book chapters on the topic. Most recently she contributed to the limited national information available about the adverse outcomes of people with Intellectual and Developmental Disabilities (I/DD) and the pandemic. She is a co-PI for the Disability Research and Dissemination Center, a cooperative agreement with Center for Disease Control and Prevention National Center on Birth Defects and Developmental Disabilities, to increase their capacity for research and training related to disability and health, and co-chairs the advisory group for the New York State Department of Health Disability and Health Program. She serves as a consultant related to the health of people with I/DD on a National Institute on Aging project and as a member of a National Institute of Dental and Craniofacial research Data and Safety Monitoring Board funded project; she is a National Institutes of Health, National Institute of Neurological Disorders and Stroke/National Institute of Child Health and Human Development Common Data Element working group member, serving on the Infant-Pediatric subgroup. She participated in an advisory capacity to the National Council on Disability related to a national agenda to address health equity for people with disability. Dr. Turk is a founding and present Co-Editor-in-Chief of Disability and Health Journal.

Dr. Turk's professional service includes participation in PMR national leadership and contributions to national/international

reports on disability, rehabilitation services, health promotion, and research. She serves on a community board that supports person-centered services for people with disability. She has received numerous awards for her contributions.



Damon Tweedy, MD

Damon Tweedy, MD is an associate professor of psychiatry at Duke University School of Medicine and a staff psychiatrist within the Durham Veteran Affairs Health Care System. He completed both medical school and his specialty training at Duke. He divides his time between clinical and administrative duties within the VA system and medical student teaching and mentorship at Duke.

Dr. Tweedy has written extensively about the intersection of race and medicine, both in academic journals and popular print publications. His 2015 book, *Black Man in a White Coat: A Doctor's Reflections on Race and Medicine*, made the New York Times bestseller list and was selected by TIME Magazine as a top non-fiction book that year.



Steven Koop, MD

Steven Koop, MD, is Professor of Orthopedic Surgery at the University of Minnesota Medical School. He has worked as a pediatric orthopedic surgeon at Gillette Children's Specialty Healthcare in St. Paul, Minnesota, since 1985. His clinical work has focused on the musculoskeletal problems of children and adolescents, most of whom have lifelong neuromuscular conditions. Gillette Children's serves as an education site for residents from the University of Minnesota, Henry Ford Hospital and the Mayo Clinic and he enjoys every opportunity to work with them. He served as Medical Director of Gillette Children's from 2001 through 2018, a role which helped him understand the complicated and essential collaboration that must take place between those who have the privilege of serving patients and those who work to make that service possible by managing the facilities and processes of a healthcare organization.

Wednesday, October 6, 2021:**Full Day and a Half Session****10:00am - 7:00pm (EDT) on October 6 and****8:00am - 12:00pm (EDT) on October 7****PC1: Grading of Recommendations Assessment, Development and Evaluation (GRADE) Guideline Development Workshop***Stacey Miller MRSc, BSc (PT), Shahnaz Sultan MD, MHSC, AGAF, Yngve Falck-Ytter MD*

Learning Objectives:

1. Understand the basic principles of the GRADE process;
2. Create evidence profiles based on the GRADE process;
3. Critically evaluate systematic reviews to inform evidence-based concepts;
4. Evaluate the process of going from evidence to recommendations.

Full Day (Presented live 10:00am-7:00pm EDT)**Pre-Conference Session Held Live 10:00am - 7:00pm (EDT)****PC2: How to Establish a Research Program Focused on Cerebral Palsy Part I***Christos Papadelis PhD, Christopher Modlesky PhD*

Learning Objectives:

1. Identify and establish necessary components for a successful research program focusing on CP;
2. Understand the different funding sources and mechanisms to support a research program;
3. Understand the different components of a research grant proposal;
4. Learn how to prepare a competitive research grant proposal: science and non-science considerations.

Morning Sessions (Presented live 10:00am-2:00 pm EDT)**PC3: Cerebral Palsy Lower Extremity Surgical Indications: Expert Consensus Informed by the Delphi Process***Tom Novacheck MD, Jim McCarthy MD, Kristan Pierz MD, Jason Rhodes MD, Erich Rutz MD, PhD, Jeff Shilt MD, Ben Shore MD, Wade Shrader MD, Tim Theologis MD, MSc, PhD, FRCS, Hank Chambers MD, Jon Davids MD, Thomas Dreher MD, PhD, Kerr Graham MD, FRCS (Ed), FRACS, Robert Kay MD, Unni Narayanan MBBS, MSc, FRCS(C), and Anja Van Campenhout MD, PhD*

Learning Objectives:

1. Understand the strengths and limitations of the Delphi process;
2. Define the consensus agreement regarding indications for each of these commonly prescribed procedures;
3. Tailor expert consensus to refine indications for surgical procedures in your own patients;
4. Discuss future research to improve the understanding of indications in areas where a lack of consensus exists.

PC4: Practical Approaches to Complex Care: Care of Medically Complex Non-verbal Children with Suspected Pain Behaviors*Laura Owens MD, Irene Dietz MD, Naomi Lorch, PhD, PT*

Learning Objectives:

1. Common presentations of pain behaviors in children with medical complexity (CMC) and approach to assessment in inpatient, outpatient, and telehealth settings;
2. The evaluation of pain behaviors in CMC, including with use of the GRASP tool;
3. Available evidence and off-label use of potential non-pharmacologic interventions and pharmacologic management and the available evidence for treatments of pain behaviors;
4. The role of social determinants of health and resource navigation and psychosocial support for families of children with pain behaviors and medical complexity.

3:00 pm – 7:00 pm EDT**PC5: Enhancing Mental Health and Well-being in Adolescents and Adults with Cerebral Palsy***Prue Morgan BAppSc (PT), MAppSc (PT), PhD, Mark Peterson PhD, Mary Gannotti PT, PhD, Unoma Akamagwuna MD, Kimberly Solondz MS, Jan Willem Gorter MD, PhD*

Learning Objectives:

1. The nature and prevalence of mental health problems, and risk factors for mental health disorders in adolescents and adults with cerebral palsy;
2. Best practice in identifying, measuring, and implementing strategies to address mental health problems in adolescents and adults with cerebral palsy;
3. How to maximize mental well being in adolescents and adults with cerebral palsy in clinical practice;
4. Barriers and facilitators to accessing services to support mental health in adolescents and adults with cerebral palsy.

PC6: Development and Analysis of Upright Stability*Christina Bickley PT, PhD, BOCO, C/NDT, Kirsten Tulchin-Francis PhD*

Learning Objectives:

1. Participants will be able to discuss the subsystems that compose and the development of upright standing stability;
2. Participants will be able to discuss some of the common medical diagnoses or conditions that adversely affect standing balance;
3. Participants will be able to understand the role motion analysis can play with assessing standing balance deficits and the effectiveness of treatment interventions.

PC7: The Hammersmith Infant Neurological Examination for Telehealth: A Developmental Surveillance Tool*Lauren Ayala MD, Andrea Duncan MD*

Learning Objectives:

1. Participants will be able to characterize the challenges posed by decreased in-person access to standardized surveillance of high-risk infants;
2. Participants will be able to compare the limits in validation between the in-person and telehealth performance of the HINE;
3. Participants will be able to identify strategies to overcome difficulties of performing a neurological exam via telehealth.

PC8: Ultrasound for Chemodenervation Procedures*Katharine E. Alter, MD*

Learning Objectives:

1. Proficiency in the basics of ultrasound imaging
2. Identify applications of US in clinical practice including procedural guidance
3. Identify sonoacoustic properties of relevant tissues
4. Identify benefits and limitations of incorporating US into clinical practice
5. Identify key muscles in upper/lower limbs and trunk.

7:00 pm – 8:00 pm EDT – Welcome Reception

**You won't want to miss the first ever
AACPDM Trivia Gameshow
 during the Welcome Reception
**Wednesday, October 6 from
 7:00 - 8:00 pm EDT featuring
 historical fun and facts to honor the
 75th Diamond Jubilee Anniversary!****

Thursday, October 7, 2021:**12:00 pm – 1:00 pm EDT - Membership Business Meeting (members only)****1:00 pm – 2:15 pm EDT - Mini Symposia****MS01: Making a Difference with the GOAL Questionnaire: Incorporating Family Priorities into Practice***Jean Stout MS, PT, Elizabeth Boyer PhD, Pam Thomason MPT, Katie Walt PT, DPT, Andrew Georgiadis MD, Unni Narayanan MBBS, MSc, FRCS(C)*

Learning Objectives:

1. Describe the unique nature of the GOAL Questionnaire and what it adds to functional outcome assessment;
2. Explain the validation process, scoring and interpretation of the GOAL Questionnaire across patients with different motor abilities;
3. Identify one or more pearls and pitfalls regarding incorporation of the GOAL Questionnaire into clinical practice;
4. Discuss how direct knowledge of family priorities related to functional tasks can augment and direct treatment planning.

MS02: Systemic Racism in Medicine: Toward a Greater Understanding*Lisa Thornton MD, Maurice Sholas MD, PhD, Glendaliz Bosques MD, Laura Deon MD*

Learning Objectives:

1. Name 3 examples of how racial bias has influenced medicine;
2. Discuss the impact of systemic racism on patient health;
3. Identify two common tests in medicine that incorrectly use the social construct of race as a feature of human physiology;
4. Discuss how systemic bias prevents marginalized groups from equal participation.

MS03: Establishing a Baby Constraint Induced Movement Therapy Program at Your Centre: An Implementation Course*Darcy Fehlings MD, MSc, FRCPC, Kathleen Friel PhD, Annette Majnemer OT, PhD, FCAHS, Sophie Lam-Damji OT, Amber Makino MD*

Learning Objectives:

1. Understand the evidence for B-CIMT;
2. Have knowledge on developmental identifiers of hemiplegia in primary care;
3. Interpret the scoring of the Hammersmith as it relates to 'asymmetries' to identify children who may benefit from B-CIMT;
4. Understand how to use baby hand assessments to define activities of an individualized B-CIMT program.

MS04: Neuro-Orthopaedic Journal Club: Top Articles of 2020 in the Orthopaedic Management of Children with Neuromuscular Disorders*Amanda Whitaker MD, Benjamin Shore MD, MPH, Jon Davids MD*

Learning Objectives:

1. Use 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!

MS05: Artificial Intelligence in Rehabilitation Targeting Participation for Young Persons with Disabilities: Gaps and Opportunity*Vera Kaelin MSc, Mina Valizadeh BSc, Natalie Parde PhD, Mary Khetani ScD*

Learning Objectives:

1. Describe common types of artificial intelligence (AI) employed in healthcare.
2. Summarize the most prevalent AI applications used in pediatric rehabilitation interventions to target participation of young persons with childhood disabilities;
3. Appraise gaps for further research on the use of AI in pediatric rehabilitation interventions targeting young persons' participation;
4. Describe the Participation and Environment Measure Plus (PEM+) as a participation-focused rehabilitation intervention that may be amenable to the use of AI.

2:15 pm – 2:45 pm EDT - Networking Discussions

Continue the discussion - each session will feature it's own discussion. Open to all registered meeting attendees.

2:15 pm – 2:45 pm EDT - Let's Move!

Take a quick energizing break courtesy of the Adapted Sports and Recreation Committee!

3:00 pm – 5:00 pm EDT - Free Paper Sessions**Free Paper Session A: Basic Science/Technology****Presenting author is underlined***3:00-3:07 pm - A1: Yield of Clinically Reportable Genetic Variants in an Unselected Cerebral Palsy Cohort***Clare van Eyk PhD, Dani Webber BSc (Hons), Andre Minoche PhD, Luis Perez-Jurado MD, PhD, Mark Corbett PhD, Alison Gardner BA, Jesia Berry MPH, PhD, Kelly Harper BHSc, Alastair MacLennan MB, ChB, FRCOG, FRANZCOG, Jozef Gecz PhD, FAA, FAHMS, FFS(RCPA)***3:08-3:15 pm - A2: Variation in the Brain-derived Neurotrophic Actor Gene Predicts Risk of Cerebral Palsy in Extremely Low Birth Weight Infants***Stephen Erickson PhD, Michael Cotten MD, Gordon Worley MD*

3:16-3:23 pm - A3: A Clinical Trial of Umbilical Cord Blood and Umbilical Cord Tissue Mesenchymal Stromal Cells in Children with Cerebral Palsy

Jessica Sun MD, Laura Case DPT, Colleen McLaughlin DNP, Natalie Skergan CPNP, Joan Jasien MD, Mohamad Mikati MD, Jesse Troy PhD, Joanne Kurtzberg MD

3:24-3:31 pm - A4: Targeted Neuroimmunomodulatory Therapies for Functional Improvement in Cerebral Palsy

Yuma Kitase MD, Nethra Madurai MD, Eric Chin MD, Shenandoah Robinson MD, Lauren Jantzie PhD

3:32-3:39 pm - A5: Morpho-Histological Assessment on Gastrocnemius Muscle Microbiopsy of Young Children with Cerebral Palsy

Jorieke Deschrevel MSc, Karen Maes PhD, Jules Peeters, Marlies Corvelyn MSc, Anja Van Campenhout MD, PhD, Nathalie De Beukelaer MSc, Julie Uytterhoeven MSc, Kaat Desloovere PhD, Domiziana Costamagna PhD, Ghislaine Gayan-Ramirez PhD, Els Ortibus MD/Professor, Stefaan Nijs MD

3:40-4:00 pm - Discussion

4:00-4:07 pm - A6: Augmentative and Alternative Communication and Interpreter Use for the Cognitive Assessment of Children with CP: A Question of Equity

Elisabeth O'Regan BA, Ann Alriksson-Schmidt PhD, MSPH, Pia Ödman PT, PhD, Kristine Stadskleiv PhD, Maja Knudsen Cand.psychol

4:08-4:15 pm - A7: Heart Rate Variability in Children with and Without Dyskinetic Cerebral Palsy During Rest and Eye-tracking Gaming Performance

Saranda Bektashi MSc, Petra Karlsson PhD, Inti Vanmechelen MSc, Tamaya Van Criekinge PhD, Marco Konings PhD, Patrick Hellin OT, Hans Hallez PhD, Jean-Marie Aerts PhD, Els Ortibus PhD, MD, Elegast Monbaliu PhD

4:16-4:23 pm - A8: Eye Metrics in Children with Dyskinetic Cerebral Palsy During Eye-tracking Performance Compared to Typically Developing Children

Saranda Bektashi MSc, Petra Karlsson PhD, Inti Vanmechelen MSc, Marco Konings PhD, Tamaya Van Criekinge PhD, Patrick Hellin OT, Jean-Marie Aerts PhD, Hans Hallez PhD, Els Ortibus PhD, MD, Elegast Monbaliu PhD

4:24-4:31 pm - A9: Telerehabilitation for Children and Youth with Brain-based Developmental Disabilities and Their Families: Systematic Review

Tatiana Ogourtsova OT, PhD, Maureen O'Donnell MD MSc, Zachary Boychuck OT, PhD(c), Sara Ahmed PT, PhD, Galil Osman, Annette Majnemer OT, PhD, FCAHS

4:32-4:39 pm - A10: Creation of Evidence-based Resources to Support Pediatric Healthcare Professionals in Adapting Practices to Include Telehealth

Zachary Boychuck OT, PhD, Dahlia Kairy PhD, PT, Tatiana Ogourtsova OT, PhD, Walter Wittich PhD, FFAO, CLVT, Annette Majnemer OT, PhD, FCAHS, Sara Ahmed PT, PhD

4:40-5:00 pm - Discussion

Free Paper Session B: Diversity, Equity and Inclusion/ Developmental

**Presenting author is underlined*

3:00-3:07 pm - B1: Perspectives of Children and Youth with Disabilities Regarding Their Experiences in Inclusive Education: A Meta-aggregative Review

Tithi Paul BS, Wenonah Campbell PhD

3:08-3:15 pm - B2: Healthcare Resource Utilization by Children with Cerebral Palsy

Maria Juricic BScPT, MRSc, Stacey Miller MRSc, BSc (PT), Jaimy Coates, Nandy Fajardo, Christopher Chapman MD, BSc, Eva Habib MPH, Kishore Mulpuri MBBS, MS, MHSc, FRCSC

3:16-3:23 pm - B3: Labour Market Consequences of Cerebral Palsy: A Register-Based Study

Derek Asuman MS

3:24-3:31 pm - B4: Social Capital of Primary Caregivers of Children with and Without Disability in Rural Bangladesh- Findings from a Case-Control Study

Israt Jahan MPH, Rosalie Power PhD, Mohammad Muhit PhD, Nadia Badawi AM, Gulam Khandaker MBBS, MPH, DCH, PhD, FAFPHM

3:32-3:39 pm - B5: Rehabilitation and Education Status of Children with Cerebral Palsy (CP) in Bangladesh: Findings from the Bangladesh CP Register

Mahmudul Hassan AlImam MPH, Israt Jahan, Manik Chandra Das, Mohammad Muhit PhD, Hayley Smithers-Sheedy, Sarah McIntyre, Nadia Badawi AM, Gulam Khandaker MBBS, MPH, DCH, PhD, FAFPHM

3:40-4:00 pm - Discussion

4:00-4:07 pm - B6: Autism and ADHD Are Main Associated Impairments in Children with Cerebral Palsy

Magnus Pålman MD, PhD, Kate Himmelmann MD, PhD

4:08-4:15 pm - B7: Initial Validation of the Ignite Challenge for Children and Youth with Autism Spectrum Disorder

Kerry Evans Bach App Sc in Physiotherapy, Annemarie Wright PhD, BSc (Hons), Catriona Bauve BPhysio, F Virginia Wright PhD

4:16-4:23 pm - B8: Construct Validity of the Autism Classification System of Functioning: Social Communication Across Childhood and Adolescence

Diana Tajik-Parvinchi PhD, Peter Rosenbaum MD, Eric Duku PhD, Mary Jo Cooley Hidecker PhD, Lonnie Zwaigenbaum MD, Caroline Roncadin MD, Stelios Georgiades PhD, Stephen Gentles PhD, Hanna Fang MSc, Briano Di Rezze PhD

4:24-4:31 pm - B9: Selective Motor Control and Strength in Individuals with Spina Bifida

Elizabeth Boyer PhD, Linda Krach MD

4:32-4:39 pm - B10: CO-OP Approach Improves Activity Performance and Participation – in Children with Cerebral Palsy and Spina Bifida

Ann-Marie Öhrvall PhD, Caisa Hofgren PhD, Lena Bergqvist PhD, Barbro Lindquist PhD, Kate Himmelmann MD, PhD, Marie Peny-Dahlstrand PhD

4:40-5:00 pm - Discussion

Free Paper Session C: Orthopaedics

*Presenting author is underlined

3:00-3:07 pm - C1: Epidemiology of Fractures in Children with Cerebral Palsy in Sweden: A Population-based Registry Study

Gustaf Linton, Ann Aliksson-Schmidt PhD, MSPH, Gunnar Hägglund PhD

3:08-3:15 pm - C2: Better Understanding the Orthopaedic Burden of Neurosurgical Hemispherectomy in Pediatric Patients

William Belshe BS, Nicholas Gajewski MD, Rachel Thompson MD

3:16-3:23 pm - C3: A Systematic Review and Meta-analysis: Does Age and Follow-up Affect Outcomes for Pediatric Upper Extremity Cerebral Palsy Surgery?

Amy Song BS, Lauren Hutnik BA, Yash Shah BS, Kunj Jain BA, Anugya Mittal BA, Vaishali Ravikumar BS, Anam Purewal BS, JenFu Cheng MD, Alice Chu MD

3:24-3:31 pm - C4: Calcaneal Sliding versus Calcaneal Lengthening Osteotomy for Valgus Foot Deformity Correction in Children with Cerebral Palsy

Susan Rethlefsen DPT, Alison Hanson MPT, Tishya Wren PhD, Robert Kay MD

3:32-3:39 pm - C5: Mid-term Health-Related Quality of Life and Caregiver Burden Following Orthopedic Surgery in Children with Cerebral Palsy

Rachel DiFazio PhD, RN, Judith Vessey PhD, MBA, RN, DPNP, Patricia Miller MS, Brian Snyder MD, PhD, Benjamin Shore MD, MPH

3:40-4:00 pm - Discussion

4:00-4:07 pm - C6: The Risk of Scoliosis in Children with Dystonic Cerebral Palsy Is Less Than in Children with Spasticity

Supreet Deshpande MD, Rashmi Acharya, Mark Gormley Jr MD

4:08-4:15 pm - C7: Concurrent Hip Dysplasia and Scoliosis in Children with Cerebral Palsy: should We Fix the Hip or Spine First?

Wade Shrader MD, Ali Asma MD, Armagan Can Ulusoglu MD, Kenneth Rogers PhD, Mutlu Cobanoglu MD, Jason Howard MD, Suken Shah MD

4:16-4:23 pm - C8: Baclofen Pump Use: Complications After Growth-Friendly Instrumentation for Early-Onset Scoliosis

Amy Xu BS, Majd Marrache MD, Christina Hardesty MD, Mari Groves MD, Mark Erickson MD, Robert Murphy MD, George Thompson MD, Paul Sponseller MD

4:24-4:31 pm - C9: Postoperative Urinary Retention After Pediatric Orthopedic Surgery: Increased Risk in Children with Neurodisabilities

Mohan Belthur MD, FRCSC, Jessica Burns MD, MPH, Ian Singleton BS, M'hamed Temkit PhD, Thomas Sitzman MD, MPH

4:32-4:39 pm - C10: The Impact of Preoperative Anxiety on Postoperative Pain in Patients with Cerebral Palsy Undergoing Orthopaedic Surgery

Rachel Wahhab BS, Danielle Greig MD, Rachel Thompson MD

4:40-5:00 pm - Discussion

Free Paper Session D: Therapy/Tone

*Presenting author is underlined

3:00-3:07 pm - D1: Treatment of Spasticity in Children and Adolescents with Cerebral Palsy in Northern Europe: A CP-North Registry Study

Ann Aliksson-Schmidt PhD, MSPH, Gunnar Hägglund PhD, Sandra Hollung PhD, MS, Matti Ahonen MD, PhD, Guro L Andersen MD, PhD, Gudbjörg Eggertsdottir MScPh, Msc, PT, Mark Gaston, Reidun Jahnsen PhD, Ira Jeglinsky Kankainen PT, PhD, Kirsten Nordbye-Nielsen MSc, Ilaria Tresoldi MD, PhD

3:08-3:15 pm - D2: Efficacy of Incobotulinumtoxin/A Treatment for Children/Adolescents with Sialorrhea Associated with Neurological Disorders

Steffen Berweck MD, Heakyung Kim MD, Marta Banach MD, PhD, Angelika Hanschmann MS, Michael Althaus MD, Marcin Bonikowski MD

3:16-3:23 pm - D3: Changes of Muscle Mass After Botulinum Toxin Injection in Children with Spastic Hemiplegic Cerebral Palsy

Jaewon Kim MD, Dae-Hyun Jang MD

3:24-3:31 pm - D4: Effect of Activity-based Training on Lower Extremity Contracture and Spasticity in People with Cerebral Palsy: A Systematic Review

David Yang BSc, Caitlin Hurd MSc, MScPT, Diane Lorenzetti MLS, PhD, Jaynie Yang BSc(PT), MSc, PhD, Elizabeth Condliffe PhD, MD, FRCPC

3:32-3:39 pm - D5: Quality of Systematic Reviews of Interventions for Children with Cerebral Palsy

Kat Kolaski MD, Lynne Romeiser Logan PhD, Charlene Butler MA, Edd

3:40-4:00 pm - Discussion

4:00-4:07 pm - D6: What Is the Effect of Progressive Resistance Training in Muscle Function, Activity and Participation in People with Cerebral Palsy?

Theofani Bania PhD, Nicholas Taylor PhD, Hsiu-Ching Chiu, Garyfallia Charitaki, Evdokia Billis

4:08-4:15 pm - D7: Contribution of Sensory-Motor Impairments to Mobility in Pre-Adolescent Children with Cerebral Palsy: An Observational Study

Hsiu-Ching Chiu PhD

4:16-4:23 pm - D8: Participation Measures for Young People Aged 15 to 26 Years with Cerebral Palsy: A Systematic Review

Jacinta Quartermaine PhD Candidate, BSpPath(Hon1), Leanne Johnston PhD, BPhysio, Tanya Rose PhD, BSpPath(Hon1), Megan Auld PhD, BPhysio

4:24-4:31 pm - D9: Physical Literacy and Behaviour Outcomes Associated with Program Participation in Youth with and Without Disabilities

Kelly Arbour-Nicopoulos PhD, F Virginia Wright PhD, Emily Bremer PhD, Jennifer Leo PhD

4:32-4:39 pm - D10: Association Between Social Distancing and Participation at Home of Children and Adolescents with Neuromotor Impairments

Beatriz Brugnaro PT, Olaf Kraus de Camargo MD, PhD, Gesica Fernandes, Ana Carolina de Campos PT, PhD, Silvia Letícia Pavão PhD, Nelci Adriana Cicuto Ferreira Rocha PhD

4:40-5:00 pm - Discussion

5:00 pm – 5:30 pm EDT - Networking Discussions

Continue the discussion - each session will feature it's own discussion. Open to all registered meeting attendees.

5:00 pm – 5:30 pm EDT - Let's Move!

Take a quick energizing break courtesy of the Adapted Sports and Recreation Committee!

5:30 pm – 7:00 pm EDT - General Session

Opening Address and Gavel Exchange: Susan E. Sienko, PhD, PT to Tom F. Novacheck, MD

Presidential Guest Lecturer: Damon Tweedy, MD
Reflections on Race and Medicine in the Era of COVID-19 and Nationwide Protests

Diversity, Equity and Inclusion Panel: Laura Deon MD, Tom Novacheck MD, Maurice G. Sholas MD, PhD, Lisa S. Thornton MD and Damon Tweedy MD

7:00 pm – 8:00 pm EDT - Posters with Past Presidents

Past/present and future presidents will guide attendees through a thought provoking session highlighting the quality work of our members and attendees. Attend, learn and connect! Each poster tour will highlight a different topic including Diversity, Equity and Inclusion, Tone, Technology, Lifespan, Therapy, Gait and Early Diagnosis/Complex Care.



Friday, October 8, 2021

10:00 am – 12:00 pm EDT - Adults and Aging SIG

Purpose: To bring together a multidisciplinary group of health professionals and researchers with a focus on optimizing lifespan care for adults with CP and other childhood onset disabilities (CODs). This Adult Care and Aging SIG will attract researchers, clinicians and other allied healthcare providers to facilitate and foster connections for ongoing collaboration.

12:00 pm – 1:00 pm EDT - International Networking Lunch**1:00 pm – 2:15 pm EDT - Mini Symposia****MS06: Driving Technology Development in the Right Direction: On y Va !**

Anna McCormick BMSc, MD, FRCPC, Elaine Biddiss MASc, PhD, Jan Willem Gorter MD, PhD, Adam Scheinberg MBBS, DCH, FRACP, FAFRM, MMed, Joanna Butchart PT, MPT, MPH, Hana Alazem MD

Learning Objectives:

1. Be introduced to the six F-Words in Child Development built upon the World Health Organization's International Classification of Functioning, Disability and Health (ICF) framework;
2. Review scientific assessment of cutting edge technology including robotic gait trainers, social robots and mixed reality therapy games;
3. Apply the F-words lens to these specific examples of technology;
4. Participate in active discussion regarding how this framework can be utilized to drive the development of powerful cutting edge technology forward.

MS07: Hip Surveillance for Children with Cerebral Palsy: Strategies and Technologies to Overcome Barriers to Implementation

Vedant Kulkarni MD, Jon Davids MD, Stacey Miller MRSc, BSc (PT), Kerr Graham MD, Amanda Whitaker MD

Learning Objectives:

1. Describe the evidence for hip surveillance in children with cerebral palsy;
2. Describe models for the implementation of hip surveillance that have been developed in multiple countries;
3. List barriers and potential solutions to implementing hip surveillance within varying health systems;
4. Understand resources and technology that can overcome common barriers for implementation of a hip surveillance program.

MS08: Top Ten Articles in Developmental Disabilities

Richard Adams MD, Nancy Murphy MD

Learning Objectives:

1. Summarize the major conclusions of each of the ten articles presented;
2. Identify areas in which additional research is needed;
3. Evaluate the utility of each of the articles for one's own clinical practice;
4. Be inspired by the presentations to seek articles on their own.

MS09: Primary and Secondary Gait Deviations and Compensatory Mechanisms in Persons with Neuromuscular Disorders

Sylvia Ounpuu MSc, Kristan Pierz MD

Learning Objectives:

1. Define primary and secondary deviations and compensations seen in gait;
2. Differentiate between primary deviations that need to be treated and compensations that will resolve if the primary problem is addressed;
3. Understand common multi-level gait patterns in persons with neuromuscular disorders;
4. Describe how motion analysis can help us better understand gait function and make more informed treatment decisions.

MS10: Management of Difficult Clinical Presentations of Hypertonia and Complex Movement Disorders in Children with Disabilities

Mark Gormley Jr, MD, Tim Feyma MD, Patrick Graupman MD

Learning Objectives:

1. Be able to better understand difficult hypertonic and complex movement disorders and possible treatment options, including the importance of a team approach in patient management;
2. Understand when a deep brain stimulator can be useful in managing severe dystonic and dyskinetic conditions;
3. Understand which patients may be successfully treated with a ventral-dorsal rhizotomy or a selective dorsal rhizotomy;
4. Understand when intrathecal baclofen, phenol neurolysis, and botulinum toxin injections may be useful in treating hypertonic conditions.

2:15 pm – 2:45 pm EDT - Networking Discussions

Continue the discussion - each session will feature its own discussion. Open to all registered meeting attendees.

2:15 pm – 2:45 pm EDT - Let's Move!

Take a quick energizing break courtesy of the Adapted Sports and Recreation Committee!

3:00 pm – 5:00 pm EDT - Free Paper Sessions**Free Paper Session E: Complex Care/Early Development**

**Presenting author is underlined*

3:00-3:07 pm - E1: Age of Diagnosis, Fidelity and Acceptability of an Early Diagnosis Clinic for Cerebral Palsy: Single Site Implementation Study

Anna te Velde PT, Catherine Morgan PT, PhD, Esther Tantsis FRACP, MBBS, BMedSci, PhD, Prue Golland PT, MPH, Jane Berry OT, MSc Paediatric OT, Johanna Korkalainen B App Sci, Robyn McMurdo BSW, Ronda Shehata BSpeechPath, Nadia Badawi AM, Iona Novak BAppSc, MSc (Hons), PhD

3:08-3:15 pm - E2: Diagnostic Preferences in the Cerebral Palsy Community – A Tale of Two Diagnoses

Bhooma Aravamuthan MD, DPhil, Michele Shusterman BA, LeAnne Snyder PhD, Monica Lemmon MD, Jennifer Bain MD PhD, Paul Gross BA

3:16-3:23 pm - E3: Emergency Room Utilization for Children with Medical Complexity Following Community Emergency Medical Service Collaboration

Kurtis Sobush MD, Tricia Casey EMT-P, Nicholas Salzman EMT-P

3:24-3:31 pm - E4: Quantifying Neurodevelopmental Impairment: Cerebral Palsy and the Encephalopathy of Prematurity

Karnika Mehrotra, Lauren Jantzie PhD, Alexander Hoon MD, MPH, Shenandoah Robinson MD, Eric Chin MD

3:32-3:39 pm - E5: Exploration of Cardiovascular Risk Factors During Childhood in Children with and Without Cerebral Palsy

Theresa Sukal-Moulton PT, DPT, PhD, Xiaoyun Yang MS, Dana Coons BA, Amy Krefman MS, Norrina Allen PhD, MPH, Deborah Gaebler-Spira MD

4:00-4:07 pm - E6: Parents' Perspective of Receiving a Diagnosis for Their Child

Stacey Miller MRSc, BSc (PT), Maria Juricic BScPT, MRSc, Jaimy Coates, Maureen O'Donnell MD, MSc, Kishore Mulpuri MBBS, MS, MHSc, FRCSC

4:08-4:15 pm - E7: Early Childhood Developmental Skills of Children with Tracheostomies and Ventilators Recently Discharged Home

Sarah Sobotka MD, MSCP, Emma Lynch MPH, Robert Graham MD, Michael Msall MD

4:16-4:23 pm - E8: Pneumonia Following Hip Reconstruction Surgery in Children with Neurologic Complex Chronic Conditions

Rachel DiFazio PhD, RN, Jay Berry MD, MPH, Patrice Melvin MS, Benjamin Shore MD, MPH

4:24-4:31 pm - E9: Sleep Problems in Children with Cerebral Palsy and Their Parents: Results from the 24-hour Activity Checklist

Raquel Hulst MSc, Jan Willem Gorter MD, PhD, Jeanine Voorman MD, Eveline Kolk MSc, Sanne van der Vossen MD, Anne Visser-Meily MD, Marjolijn Ketelaar PhD, Sigrid Pillen MD, Olaf Verschuren PhD

4:32-4:39 pm - E10: Home Health Nursing Care Utilization in Children with Medicaid

Sarah Sobotka MD, MSCP, David Hall MD, Cary Thurm PhD, James Gay MD, Matt Hall PhD, Jay Berry MD, MPH

4:40-5:00 pm - Discussion

Free Paper Session F: Gait

*Presenting author is underlined

3:00-3:07 pm - F1: Finding Consensus for Knee Surgery in Children with Cerebral Palsy Using the Delphi Method

Robert Kay MD, James McCarthy MD, Kerr Graham MD, Unni Narayanan MBBS, MSc, FRCS(C), Jon Davids MD, Kristan Pierz MD, Anja Van Campenhout MD, PhD, Jason Rhodes MD, Benjamin Shore MD, MPH, Henry Chambers MD, Tom Novacheck MD, Thomas Dreher MD, PhD

3:08-3:15 pm - F2: International Consensus Regarding Surgical Indications for Distal Femoral Extension Osteotomy in Children with Cerebral Palsy

Robert Kay MD, James McCarthy MD, Kerr Graham MD, Unni Narayanan MBBS, MSc, FRCS(C), Kristan Pierz MD, Tom Novacheck MD, Thomas Dreher MD, PhD, Matthew Veerkamp BA, Wade Shrader MD, Erich Rutz MD, Tim Theologis MD, MSc, PhD, FRCS, Jeffrey Shilt MD

3:16-3:23 pm - F3: Anterior Distal Femoral Hemiepiphysiodesis in Children with Cerebral Palsy: Establishing Surgical Indications and Techniques

Benjamin Shore MD, MPH, Kerr Graham MD, Unni Narayanan MBBS, MSc, FRCS(C), Jon Davids MD, Kristan Pierz MD, Anja Van Campenhout MD, PhD, Wade Shrader MD, Tim Theologis MD, MSc, PhD, FRCS, Matthew Veerkamp BA, Thomas Dreher MD, PhD, Robert Kay MD, James McCarthy MD

3:24-3:31 pm - F4: Association Between Pain and Patella Alta in Patients with Cerebral Palsy and Crouch Gait

Carolina Santini MD, Lauro Neto MD, Guilherme Brodt PharmD, Eduardo Comparsi MD

3:32-3:39 pm - F5: Kinetic and Kinematic Repercussion of the Hip During Knee Hyperextension Gait in Hemiplegic Cerebral Palsy

Carolina Santini MD, Lauro Neto MD, Guilherme Brodt PharmD, Eduardo Comparsi MD

3:40-4:00 pm - Discussion

4:00-4:07 pm - F6: Long-term Evolution of Walking in Unilateral Cerebral Palsy: A 10-years Follow-up of 34 Children

Alice Bonnefoy-Mazure PhD, Geraldo De Coulon MD, Stéphane Armand PhD

4:08-4:15 pm - F7: Combination of Orthopaedic Surgery & Post Surgery Rehabilitation in Treatment of CP with Crouch Gait - Preliminary Experience in China

Haiqing Cai MD, Min Shen MD, Zhigang Wang MD, Sheng Jin MD, Chunxin Xu MD, Cen Chen MD, Yangyang Lu PT

4:16-4:23 pm - F8: Gait and Mobility Outcomes After Multi-level Surgery for Youth with Cerebral Palsy: Differences in Rehabilitation Setting & Dose

Nancy Lennon MS, PT, DPT, Christina Bourantas BS, Jason, Beaman PT, Tim Niiler PhD, Laura Owens MD, Wade Shrader MD

4:24-4:31 pm - F9: The Impact of Preoperative Factors and Surgical Burden on Postoperative Recovery of Walking Activity in Children with Cerebral Palsy

Chris Church MPT, Isabel Biermann BS, Nancy Lennon MS, PT, DPT, John Henley PhD, Stephanie Butler DPT, Tim Niiler PhD, Wade Shrader MD, Freeman Miller MD, Jason Howard MD

4:32-4:39 pm - F10: The Relationship Between Pelvic-Hip Musculature and Functional Ambulation in Patients with Spina Bifida

Tasos Karakostas PhD, Ana-Marie Rojas MD, Jill Larson MD, Suruci Batra BS, Vineeta Swaroop MD, Luciano Dias MD

4:40-5:00 pm - Discussion

Free Paper Session G: Orthopaedics: Hip

*Presenting author is underlined

3:00-3:07 pm - G1: Suspension of Provincial Hip Surveillance for Children with Cerebral Palsy: The Impact of COVID-19

Stacey Miller MRSc, BSc (PT), Maria Juricic BScPT, MRSc, Jennifer Farr, Kishore Mulpuri MBBS, MS, MHSc, FRCS

3:08-3:15 pm - G2: How Well Does Physical Examination Predict Radiographic Hip Displacement in Children with CP?

Susan Stott MD, PhD, Unni Narayanan MBBS, MSc, FRCS(C), Darcy Fehlings MD, MSc, FRCPC, Kerr Graham MD, Kate Willoughby PT, Kishore Mulpuri MBBS, MS, MHSc, FRCS, Benjamin Shore MD, MPH, Tim Theologis MSc, PhD, FRCS, Moon Seok Park MD, PhD

3:16-3:23 pm - G3: Surgeon Practice Variation and Factors Influencing Intervention Indications for Hip Displacement in Children with Cerebral Palsy

Maximillian Mifsud MD, MScRes, FRCSEd, Unni Narayanan MBBS, MSc, FRCS(C), Kishore Mulpuri MBBS, MS, MHSc, FRCS, Benjamin Shore MD, MPH, Wade Shrader MD, Tim Theologis MSc, PhD, FRCS, Susan Stott MD, PhD, Jason Rhodes MD, Vedant Kulkarni MD, Marek Jozwiak MD, PhD, Uri Givon MD, Eva Ponten MD, PhD

3:24-3:31 pm - G4: Hip Displacement in mecp2 Disorders: Prevalence and Risk Factors

Bidzina Kanashvili PhD, Kenneth Rogers PhD, Freeman Miller MD, Wade Shrader MD, Jason Howard MD

3:32-3:39 pm - G5: Is Epidural Analgesia Necessary for Unilateral Hip Reconstruction in Children with Neuromuscular Conditions?

Sean Tabaie MD, Kevin Cho BS, Aribah Shah BS, Evan Sheppard MD

3:40-4:00 pm - Discussion

4:00-4:07 pm - G6: Utilization of Blade vs. Locking Plate in Cerebral Palsy Patients Undergoing Femoral Osteotomy

Afolayan Oladeji BA, Andrew Landau MD, J. Eric Gordon MD, Pooya Hosseinzadeh MD

4:08-4:15 pm - G7: Evaluating Postoperative Immobilization Following Hip Reconstruction in Children with Neuromuscular Conditions

Sean Tabaie MD, Kevin Cho BS, Aribah Shah BS, Evan Sheppard MD

4:16-4:23 pm - G8: A Thousand Hips over Two Decades: What We Have Learned About Complications After Hip Surgery in Children with Cerebral Palsy

Wade Shrader MD, Ahmet Imerci MD, Kenneth Rogers PhD, Jason Howard MD, Freeman Miller MD

4:24-4:31 pm - G9: Total Hip Arthroplasty in Patients with Cerebral Palsy: A Matched Comparison of 90-day Adverse Events and 5-year Implant Survival

Harold Moore BS, Mursal Gardezi BS, Patrick Burroughs BS, Lee Rubin MD, David Frumberg MD, Jonathan Grauer MD

4:32-4:39 pm - G10: Urinary Tract Infections Increase Hospital Stay and Costs After Hip Surgery in Children with Neurologic Complex Chronic Conditions

Shay Seth MD, Benjamin Shore MD, MPH, Patrice Melvin MS, Jay Berry MD, MPH

4:40-5:00 pm - Discussion

Free Paper Session H: Technology

3:00-3:07 pm - H1: In Clinic Motion Analysis of the Upper Extremity for Children with Neuromuscular Conditions: A Systematic Review

Shannon Garvey MS, Patrick Curran MD, Benjamin Shore MD, MPH, Carley Vuillermin MBBS, MPH

3:08-3:15 pm - H2: Stochastic Resonance Stimulation Improves Manual Function in Children with Hemiplegic Cerebral Palsy

Olivier Rolin MD, Jessica Lynn OTR/L, Allison Wolf OTR/L

3:16-3:23 pm - H3: Actigraphy to Measure Real-life Performance for Children with Hemiparesis in Rehabilitation Trials

Anna Bourgeois, Adam Kirton MD, MSc, FRCPC, Megan Metzler OT, MSc, Adrianna Giuffre BA, Asha Hollis MSc, BHSc, Ephrem Zewdie PhD, BSc

3:24-3:31 pm - H4: Ontogenesis of Precision Grip Control While Walking down a Step in Typically Developing Children

Daniela Ebner-Karestinos PhD, Rodrigo Araneda PhD, Jean-Louis Thonnard PhD, Yannick Bleyenheuft PT, PhD

3:32-3:39 pm - H5: Efficacy of a Semi-immersive Virtual Device Intervention in Children with Unilateral Cerebral Palsy: A Randomized Controlled Trial

Geoffroy Saussez PhD, Rodolphe Bailly MSc, Rodrigo Araneda PhD, Julie Paradis PhD, Daniela Ebner-Karestinos PhD, Anne Klöcker PhD, Marie Delsaute, Emmanuel Sogbossi PT, Inmaculada Riquelme PhD, Sylvain Brochard MD, PhD, Yannick Bleyenheuft PT, PhD

3:40-4:00 pm - Discussion

4:00-4:07 pm - H6: Power Training Improves the Sensorimotor Cortical Oscillations in Youth with Cerebral Palsy

Morgan Busboom DPT, Anna Reelfs BS, Mike Trevarrow BS, Brad Corr DPT, Heidi Reelfs DPT, Sarah Baker MA, Hannah Bergwell BS, BA, Tony Wilson PhD, Noelle Moreau PT, PhD, Max Kurz PhD

4:08-4:15 pm - H7: Power Training Improves the Mobility and Somatosensory Cortical Activity of Individuals with Cerebral Palsy

Hannah Bergwell BS, BA, Max Kurz PhD, Tony Wilson PhD, Sarah Baker MA, Heidi Reelfs DPT, Noelle Moreau PT, PhD, Brad Corr PT, DPT

4:16-4:23 pm - H8: Hemodynamics and Oxygenation in the Leg Muscles of Young Adults with Cerebral Palsy Using Near-Infrared Spectroscopy

Ronit Aviram MA, Inbar Kima BA, Thierry Willigenburg BA, Haim Bassan MD, Raziel Riemer PhD, Simona Bar Haim PhD

4:24-4:31 pm - H9: Interrelations Between Lower Limbs Sensory Aspects and Postural Stability in Individuals with Cerebral Palsy

Camila Santana PhD, Carolina Corsi PhD, Beatriz Brugnaro PT, Mariana Santos PhD, Nelci Adriana Cicuto Ferreira Rocha PhD, Isabella Sudati BS, Ana Carolina de Campos PT, PhD

PROGRAM AND EVENTS

4:32-4:39 pm - H10: Barcoding Leg Movements to Compare Infants with Typical Development and Infants at Risk of Developmental Disabilities

Weiyang Deng MS, Vivien Marmelat PhD, Beth Smith PT, DPT, PHD

4:40-5:00 pm - Discussion

5:00 pm – 5:30 pm EDT - Networking Discussions

Continue the discussion - each session will feature its own discussion. Open to all registered meeting attendees.

5:00 pm – 5:30 pm EDT - *Let's Move!*

Take a quick energizing break courtesy of the Adapted Sports and Recreation Committee!

5:30 pm – 7:00 pm EDT - General Session

MacKeith Press Basic Science Lecture

Mentorship Award

Lifetime Achievement Award

7:00 pm – 10:00 pm EDT - Networking Dinner

Join us for this one of a kind opportunity to network with leaders in your field! Learn how to mix a specially-designed 75th Anniversary beverage and connect with your colleagues! Each "table" will be hosted by an AACPDM leader and dinner menus will be selected to engage participants to prepare and share with each other virtually!



FRIDAY

Saturday, October 9, 2021

11:00 am – 1:00 pm EDT - Complex Care SIG

Purpose: To promote advancement of clinical care, education, research, and advocacy for children with medical complexity. Available to all clinical and research professionals who focus on the care of children with medical complexity.

1:00 pm – 2:15 pm EDT - Mini Symposia**MS11: What Physical Distancing Meant for Us: Pandemic Measures, Telehealth, and Solutions for Interdisciplinary Care in CP Clinic**

Jilda Vargus-Adams MD MSc, Caroline Colvin DPT, Hillary Prather LISW-S, Paola Mendoza-Sengco MD

Learning Objectives:

1. List three challenges to comprehensive care created by pandemic circumstances;
2. Describe several strategies to ensure quality care, including use of telehealth, in the face of pandemic constraints; participants;
3. Employ new approaches in the delivery of telehealth care;
4. Challenges presented by symposium participants.

MS12: Cerebral Palsy: Moving Beyond the 'label' to the Ingredients

Darcy Fehlings MD, MSc, FRCPC, Bhooma Aravamuthan MD, DPhil, Michael Kruer MD, Peter Rosenbaum MD, Bernard Dan MD, PhD

Learning Objectives:

1. Understand that a CP diagnosis requires simultaneous thorough description of the associated clinical phenotype, etiologic risk factors, functioning, and developmental/health conditions;
2. Describe the benefits and limitations of a 'diagnosis' of CP;
3. Describe the distinction between a 'diagnosis' of CP and identification of etiologic risk factors for CP (such as prematurity or genetic variation);
4. Discuss potential benefits and challenges in applying this diagnostic framework across specialties, communities and geographical contexts.

MS13: Controversy in the Utility of Gait Analysis: Does It Matter If Interpretation Consistency Can Be Achieved?

Andrew Georgiadis MD, Katie Walt PT, DPT, Michael Healy 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 lack of consistency of interpretation and the benefits of a structured, on-going consistency assessment program;
3. Identify challenges associated with achieving consistency of problem identification and treatment recommendations among course participants;
4. Discuss the impact of consistency and consensus of gait data interpretation on providing quality patient care.

MS14: Spasticity Management, Contracture Prevention, and the Need for Orthopaedic Surgery: Emerging Evidence

Jason Howard MD, Tandy Hastings-Ison PhD, Kristina Tedroff MD, Ph.D, Wade Shrader MD

Learning Objectives:

1. Define spasticity in CP, in particular how it relates to its measurement and impact on gross motor function;
2. Understand the pathophysiology of muscle contracture in CP, as described in the most up-to-date evidence;
3. Understand the pathophysiologic effects of botulinum toxin on CP skeletal muscle, and how these effects are modulated by dosage and frequency of injection;
4. Understand the impact of spasticity management on the development of muscle contractures and need for orthopedic surgery.

MS15: All the Moving Parts: Developing a Transition Program Using QI Methodology

Unoma Akamagwuna MD, Jensine' Norman MD, Ameer Moreno MSN, APPRN, CPN, Jason Woodward MD, MS

Learning Objectives:

1. Describe and identify key components of a framework for change and apply them to developing a transition program;
2. Apply strategies to identify and integrate outcome measures of change using electronic medical record systems;
3. Apply strategies to engage and work with inter-professional colleagues during program planning and implementation;
4. Identify and discuss strategies to engage youth and increase self-management skills throughout the transition process.

3:00 pm – 5:00 pm EDT - Free Paper Sessions**Free Paper Session I: Early Diagnosis**

**Presenting author is underlined*

3:00-3:07 pm - I1: Analyzing Infant General Movements Using Machine Learning

Lisa Letzkus PhD, Zanelli Santina MD, Anvesh Mylavarapu, Sandeep Pillutla MS, Vince Pulido MS

3:08-3:15 pm - I2: Feasibility of Parent-collected General Movement Assessment Data Using a Smartphone Application in a United States City

Colleen Peyton PT, DPT, Ryan Millman, Sarah Rodriguez MD, MPH, Alicia Spittle PhD, Raye-Ann de Regnier MD, Vanessa Barbosa PhD, OTR/L, Theresa Sukal-Moulton PT, DPT, PhD

3:16-3:23 pm - I3: Evaluation of Writhing Movements in Infants with a Novel Quantitative Approach

Halil Ibrahim Celik PhD, Ayse Yildiz MSc, Ramazan Yildiz MSc, Akmer Mutlu PhD, Abdullah Ruhi Soylu PhD, Kivilcim Gucuyener MD, Aysu Duyan Camurdan PhD, Esin Koc PhD, Eray Esra Onal PhD, Bulent Elbasan PhD

3:24-3:31 pm - I4: Uncoordinated Sucking Pattern in Premature Infants Is Associated with Motor Development at 2 Years of Age

You Gyoung Yi MD, Hyung-Ik Shin MD, Moon Suk Bang MD

3:32-3:39 pm - I5: Cardiorespiratory Analytics in the Neonatal Intensive Care Unit and Risk for Cerebral Palsy

Lisa Letzkus PhD, Harshini Pyata, Robert Andris, Karen Fairchild MD, Doug Lake PhD

3:40-4:00pm - Discussion

4:00-4:07 pm - I6: Diagnosis of Cerebral Palsy in a Neonatal Brachial Plexus Palsy Clinic

Kathleen Vonderhaar MD, Tonye Sylvanus, Victoria Blake BA, Linda Krach MD

4:08-4:15 pm - I7: Stroke in Children Under 2-years of Age

Bithi Roy FRACP, Karen Walker PhD, Catherine Morgan PT, PhD, Nadia Badawi AM, Iona Novak BAppSc, MSc (Hons), PhD

4:16-4:23 pm - I8: Acceptability, Feasibility and Fidelity of a Neonatal Rehabilitation Program for Preterm Infants at High Risk for Cerebral Palsy

Zanelli Santina MD, Elizabeth Connaughton DPT, Nancy Kelly DPT, Hyde Megan DPT, Lisa Letzkus PhD

4:24-4:31 pm - I9: Explorer Baby Early Intervention Program Effects on Premature Infants: A Stratified Randomized Controlled Study

Turgay Altunalan PhD, Zübeyir Sarı PhD, Tuba Derya Doğan MSc, Nilüfer Eldeş Hacifazlıoğlu MD, İpek Akman MD

4:32-4:39 pm - I10: Parents' Experiences with Home Activities During Early Intervention

Afnan Gmmash PT, MS, PhD, Susan Effgen PT, PhD, FAPTA, Kimberly Wynarczuk DPT, PhD, MPH

Free Paper Session J: Gait

*Presenting author is underlined

3:00-3:07 pm - J1: Effect of Orthotics on Balance in Cerebral Palsy: Traditional Solid AFO versus Ankle-foot Orthoses Footwear Combination:

Kristie Bjornson PT, PhD, Stefania Fatone PhD, Michael Orendurff PhD, Chuan Zhou PhD, Garth Shippen BS

3:08-3:15 pm - J2: Ankle Dorsiflexion During Stance Predicts Cmpeds Outcomes in Children with Charcot-Marie-Tooth Disease Type 1

Sylvia Ounpuu MSc, Kristan Pierz MD, Gyula Acsadi MD, PhD, Erin Garibay MS, Tishya Wren PhD

3:16-3:23 pm - J3: Variation in Gait Phenotypes at the Ankle in Youth with Charcot-Marie-Tooth Disease Type 1

Sylvia Ounpuu MSc, Kristan Pierz MD, Erin Garibay MS, Gyula Acsadi MD, PhD, Tishya Wren PhD

3:24-3:31 pm - J4: Factors Related to Better Outcomes After Single-event Multilevel Surgery (SEMLS) in Patients with Cerebral Palsy

Mauro Morais Filho MD, Francesco Blumetti MD, MSc, PhD, Marcelo Fujino, Cátia Kawamura PT, José Augusto Lopes MS

3:32-3:39 pm - J5: Predictors Affecting Outcome After Single-event Multilevel Surgery in Children with Cerebral Palsy: A Systematic Review

Tomos Edwards MBChB, Tim Theologis PhD, James Wright PhD

3:40-4:00 pm - Discussion

4:00-4:07 pm - J6: The Gait Outcomes Assessment List (GOAL) Questionnaire Distinguishes Family and Patient Priorities Across GMFCS Levels

Jean Stout MS, PT, Katie Walt PT, DPT, Andrew Georgiadis MD, Madeline Palmer BS, Elizabeth Boyer PhD

4:08-4:15 pm - J7: Goal Outcomes Assessment List (GOAL): Randomized Trial of Orthotic Management in Ambulatory Cerebral Palsy

Kristie Bjornson PT, PhD, Stefania Fatone PhD, Michael Orendurff PhD, Chuan Zhou PhD, Garth Shippen BS

4:16-4:23 pm - J8: Variability of Functional Mobility Scale Ratings Within a Given GMFCS Level

Alison Hanson MPT, Susan Rethlefsen DPT, Eva Ciccodicola DPT, Tishya Wren PhD, Robert Kay MD

4:24-4:31 pm - J9: Perceived Gait Limitations in Children with Cerebral Palsy and the Associations with Objective Gait Scores

Andrea Marron MA, Karen Brady MSc, Damien Kiernan PhD

4:32-4:39 pm - J10: Muscle-Tendon Loading Measured via Non-invasive Sensor Shows Minimal Net Work Done by Triceps Surae in Children with Cerebral Palsy

Anahid Ebrahimi PhD, Michael Schwartz PhD, Jack Martin PhD, Tom Novacheck MD, Darryl Thelen PhD

4:40-5:00 pm - Discussion

Free Paper Session K: Lifespan

*Presenting author is underlined

3:00-3:07 pm - K1: Investigating a Core Outcome Set for Multimorbidity Risk Assessment in Adolescents and Adults with Cerebral Palsy

Patrick McPhee PhD, Joyce Benner PhD, Liam Sanvido BHSc, Marij Roebroek PhD, Wilma van der Slot MD, PhD, Olaf Verschuren PhD, Edward Hurvitz MD, Mark Peterson PhD, Heidi Haapala MD, Mary Schmidt DO, Jan Willem Gorter MD, PhD

3:08-3:15 pm - K2: The Progression of BMI Status over Time in Irish Ambulant Children with Cerebral Palsy

Karen Brady MSc, Damien Kiernan PhD, Andrea Marron MA

3:16-3:23 pm - K3: The Whitney Comorbidity Index to Monitor Health for Adults with CP: Validation and Thresholds to Assist Clinical Decision Making

Daniel Whitney PhD

3:24-3:31 pm - K4: Patterns of Multimorbidity and Their Association with Mortality Among Adults with Cerebral Palsy: A Principal Component Analysis

Daniel Whitney PhD

3:32-3:39 pm - K5: Health Service Use Among Adults with CP in Ireland

Manjula Manikandan MSc, Claire Kerr PhD, Aisling Walsh PhD, Jennifer Ryan PhD

3:40-4:00 pm - Discussion

4:00-4:07 pm - K6: Initial Validation of the Feelings About Balance-cerebral Palsy Questionnaire for Youth

Megan Towns MSc, Kelly Arbour-Nicitopoulos PhD, Avril Mansfield PhD, Sally Lindsay PhD, F. Virginia Wright PhD

4:08-4:15 pm - K7: Age-related Changes in the Strength of Sensorimotor Cortical Oscillations Are Aberrant in Adults with Cerebral Palsy

Saihari Dukkupati MS, Sarah Baker MA, Mike Trevarrow BS, Elizabeth Heinrichs-Graham PhD, Tony Wilson PhD, Max Kurz PhD

4:16-4:23 pm - K8: International Consensus on Outcome Measurement Instruments on Pain in Adults with Cerebral Palsy, A Delphi Study

Ann Katrin Schmidt MSc, Sander Hilberink PhD, Wilma van der Slot MD, PhD, Marij Roebroek PhD

4:24-4:31 pm - K9: Examining Opioid Prescribing Trends for Adults with Cerebral Palsy Using Estimated Oral Morphine Equivalence

Mark Peterson PhD, Neil Kamdar MA, Heidi Haapala MD

4:32-4:39 pm - K10: Parents' Perception of Adolescence and Transition to Adulthood of Their Children with Cerebral Palsy: Designing a Service for Parents

Ana Paula Silverio MSc, Marisa Mancini PhD, Fernanda Antunes OT, Priscilla Figueiredo MSc, Katia Bueno PhD, Marina Brandao PhD

4:40-5:00 pm - Discussion

Free Paper Session L: Therapy/Upper Extremity

*Presenting author is underlined

3:00-3:07 pm - L1: A Meta-Analysis of Nonsurgical Interventions to Improve Upper Extremity Function in Children with Cerebral Palsy

Kunj Jain BA, Yash Shah BS, Anugya Mittal BA, Amy Song BS, Lauren Hutnik BA, Vaishali Ravikumar BS, Anam Purewal BS, JenFu Cheng MD, Alice Chu MD

3:08-3:15 pm - L2: A Literature Review on Therapeutic Management of Upper Limb Dysfunction in Children with Bilateral Spastic Cerebral Palsy

Giada Sgherri MD, PhD, Elena Beani PT, PhD, Giovanni Cioni MD, Giuseppina Sgandurra PhD

3:16-3:23 pm - L3: Mirror Movement Changes After Intensive Therapy in Paediatric Hemiplegia: A Randomized Controlled Trial

Rodrigo Araneda PhD, Enimie Herman MA, Anne Klöcker PhD, Delcour Louis MA, Geoffroy Saussez PhD, Julie Paradis PhD, Daniela Ebner-Karestinos PhD, Yannick Bleyenheuft PT, PhD

3:24-3:31 pm - L4: Anticipatory Motor Planning of Grasping in Children with Unilateral Cerebral Palsy

Jennifer Gutterman MS, Katherine Dimitropoulou PhD, MSPOR, Trevor Lee-Miller PhD, Andrew Gordon PhD

3:32-3:39 pm - L5: Ideomotor and Limb-kinetic Apraxia in Children with Unilateral Cerebral Palsy

Thalita Karla Cruz, Deisiane Souto PhD, Patrícia Fontes PhD, Vitor Haase

3:40-4:00 pm - Discussion

4:00-4:07 pm - L6: The Role of Engagement in Upper Extremity Interventions for Children with Unilateral Spastic Cerebral Palsy

Dalina Delfing MS, Larissa Hentrich BA, Karen Chin MA, Kathleen Friel PhD, Christine Imms PhD, Victor Santamaria PT, MS, PhD, Jaya Rachwani PhD, Andrew Gordon PhD

4:08-4:15 pm - L7: Quantifying Engagement in a Pediatric Rehabilitation Setting

Dalina Delfing MS, Larissa Hentrich BA, Karen Chin MA, Kathleen Friel PhD, Christine Imms PhD, Victor Santamaria PT, MS, PhD, Jaya Rachwani PhD, Andrew Gordon PhD

4:16-4:23 pm - L8: The Impact of Dosing Parameters on Motor Skill Acquisition in Children with Bilateral Cerebral Palsy (BCP) Following HABIT-ILE

Susan Sienko PhD, PT, Cathleen Buckon OTR/L, MS, Grace-Anne Herard DPT, Yannick Bleyenheuft PT, PhD, Andrew Gordon PhD

4:24-4:31 pm - L9: A Sit-to-stand Exercise Program for Children with Moderately Severe Cerebral Palsy: A Randomized Controlled Trial

Sirawee Chaovalit PhD

4:32-4:39 pm - L10: Aquatic Exercises for Children with Muscular Dystrophy and Spinal Muscular Atrophy: A Systematic Review

Yasser Salem PT, PhD, MS, NCS, PCS, Sonali Aggarwal DPT, Howe Liu PhD, PT, MD, Ahmed Elokda PhD, PT

4:40-5:00 pm - Discussion

5:00 pm - 5:30 pm EDT - Networking Discussions

Continue the discussion - each session will feature its own discussion. Open to all registered meeting attendees.

5:00 pm - 5:30 pm EDT - Let's Move!

Take a quick energizing break courtesy of the Adapted Sports and Recreation Committee!

5:30 pm - 7:00 pm EDT - General Session

Duncan Wyeth Award Presentation

Chambers Family Lifespan Lecture: Margaret A. Turk, MD

Gayle G. Arnold Lecture

Closing Remarks and 2022 Annual Meeting Introduction

Monday, October 11, 2021

On-Demand Mini Symposia

ODMS01: Ultrasound Guided Botulinum Toxin Injections for Sialorrhea, Bruxism and Oromandibular Dystonia

Katharine Alter MD, Heakyung Kim MD, Monika Desai MD, Stephen Nichols MD, David Cancel MD

Learning Objectives:

1. Identify proficiency in the basic physics of Ultrasound scanning;
2. Applications of US in clinical practice including procedural guidance;
3. Identifying the sonoacoustic properties of relevant tissues;
4. Identifying the benefits and limitations of incorporating US into clinical practice;
5. Identifying key muscles and structures in the head and neck region including salivary glands.

ODMS02: How Do We Evaluate Children with Cerebral Visual Impairment? connecting the Dots: Diagnosis, Treatment and Maximizing Performance

Karen Harpster PhD, OTR/L, Terry Schwartz MD, Linda Lawrence MD

Learning Objectives:

1. Describe the current body of evidence for screening and assessment tools used with individuals with CVI;
2. Describe current practices from multiple institutions for collecting a targeted history, administering validated screening and assessment tools to get a comprehensive vision assessment;
3. Explain how to set up the environment and tasks during the functional vision evaluation to understand a child's vision functional vision in the real world;
4. Understand how to translate/use the results of the multi-disciplinary evaluation to inform the individual's treatment plan at home, school and the community.

ODMS03: Knowledge Translation of Clinical Practice Guidelines for Early Detection and Diagnosis of Cerebral Palsy in a Busy Clinical Setting

Karen Harpster PhD, OTR/L, Gretchen Mueller PT, DPT

Learning Objectives:

1. Describe infant detectable risks indicating that a child is at high-risk for cerebral palsy (CP) warranting further assessment;
2. Describe the assessments that are predictive of cerebral palsy and the ages in which the assessments are appropriate;
3. Describe practical solutions used in clinical practice to ensure early detection of CP such as automatic systems to monitor high risk infants and ensure testing happens at specific time periods;
4. Identify at least one quality improvement tool that can be implemented in their practice setting, in order to aid early detection and diagnosis of CP.

ODMS04: Sex in the CP – Sexuality and Life Span Care in People with Cerebral Palsy

Heakyung Kim MD, Jan Moskowitz MSW, Nancy Lee MS, Susan Labhard MSN

Learning Objectives:

1. Be able to understand the importance of including sex/sexuality in assessments; 2. Learn how to initiate meaningful conversation relating to sex/sexuality;
3. Be able to understand physical challenges and limitation that people with CP experience related to sexual activity;
3. Be educated on available treatment options for management of medical conditions that people with CP experience related to sexual activity;
4. Discuss adaptive means of seeking and having sex.

ODMS05: Atypical Rhizotomies: outside of the Box for Hemiplegia, Spasticity of Noncerebral Origin, Nonambulating and Adult Patients

Marcie Ward MD, Patrick Graupman MD

Learning Objectives:

1. Describe the history of surgical rhizotomy which guides the application of that procedure in clinical practice currently;
2. Understand the importance of careful patient selection for surgical rhizotomy based on patient and family goals, neuroanatomy principles, and the predictability of outcomes;
3. Identify atypical patient presentations that may benefit from selective dorsal rhizotomy, and discuss the anticipated outcomes;
4. Recognize patients who may benefit from dorsal-ventral rhizotomy, and discuss the anticipated outcomes.

ODMS06: Pressure Injury and Wound Management in Children and Young Adults with Disabilities

Supreet Deshpande MD, Mark Gormley Jr MD, Jennifer Wilhelmy APRN, CNP, Andrea Paulson MD

Learning Objectives:

1. Describe pressure injury classification, risk assessment, skin assessment, and preventive measures;
2. Describe the nutrition assessment and intervention, pressure relief, supportive cushions, and medical devices that help prevent and treat pressure injuries;
3. Describe pressure injury cleansing, debridement, and dressing, and treatments with biophysical agents and growth factors;
4. Describe the infection management and surgical treatments to manage pressure injuries, including antibiotic use, biofilm management, tissue transfers, bone resections, and bowel/bladder diversions.

ODMS07: How to Conduct an AACPD Care Pathway- Everything You Always Wanted to Know but Were Afraid to Ask

Lynne Romeiser Logan PhD, Kat Kolaski MD, Mohan Belthur MD, FRCS

Learning Objectives:

1. Describe the Care Pathways topics of high interest to the AACPD;
2. Plan a team to formulate a Care Pathway;
3. Formulate an application and budget for a Care Pathway;
4. Participate on a Care Pathway team.

ODMS08: An International, Multidisciplinary Symposium on Robotic Gait Training: Moving Forward Together, "On Y Va"

Anna McCormick BMSc, MD, FRCPC, Hana Alazem MD, Hubertus van Hedel PhD, PT, Elizabeth Condliffe PhD, MD, FRCPC, Eduardo Rocon PhD, PEng

Learning Objectives:

1. Define robotic gait trainers (RGT) and describe their use within neurorehabilitation;
2. Describe a new and emerging robotic walker used in cerebral palsy and growing evidence regarding use;
3. Describe devices for over-ground robotic training citing methodology / early results;
4. Participate in interactive feedback regarding in neurorehabilitation. Where are we now and where are we going together?

ODMS09: Best Practices in Holistic Care for Children and Youth with Developmental Disabilities in the Foster Care System

Veronica Meneses MD, MSHS, Hilda Loria MD, MPH, Natalie Cruz PsyD, Erinne Conner MSW

Learning Objectives:

1. Demographically describe the population of children and youth with developmental disabilities in foster care, including age, diagnoses, race/ethnicity, language, and reasons for placement;
2. Delineate how abuse and neglect impact the developing brain, resulting in medical and mental health consequences;
3. Utilizing a case example, demonstrate how to serve this population holistically through evidenced-based primary care, culturally-competent and trauma-informed practices, and collaboration with subspecialists, therapists, and child welfare and school-based professionals;
4. Identify resources supporting children and youth with disabilities who enter foster care.

ODMS10: Telehealth for Children with Medical Complexity: Practical Approaches, Pitfalls and Possibilities

Emily Goodwin MD, Matthew Sadof MD, Kathleen Huth MD, MMSc, Cristina Sarmiento MD, Kilby Mann MD, Rajashree Srinivasan MBBS

Learning Objectives:

1. Describe available evidence, benefits and limitations of use of telehealth for children with medical complexity and disability;
2. Describe approaches and resources for leveraging telehealth to optimize care for children with medical complexity and disability, including incorporating multiple caregivers, trainees, and members of the interprofessional care team;
3. Discuss strategies for evaluating telehealth outcomes for children with medical complexity and disability;
4. Apply strategies learned to clinical cases in an interactive discussion, including criteria for a phone call vs audiovisual visit vs in-person visit.

ODMS11: Cerebral Palsy in the Genomics Era: Why, When and How to Pursue a Genetic Diagnosis?

Francisca Millan MD, Michael Krueer MD, Julie Cohen ScM, CGC, Bhooma Aravamuthan MD, DPhil

Learning Objectives:

1. Understand fundamental genetic concepts, how these relate to clinical genetic testing for CP, and describe the evidence supporting genetic testing for patients with CP;
2. Evaluate a genetic test report and interpret different test outcomes (negative, positive and uncertain clinical significance).
3. Discuss the implications and challenges of genetic counseling for patients with CP and their families;
4. Identify patients who may benefit from genetic testing and customize patient management based on the results.

ODMS12: Innovations in Power Wheelchair Options: Benefits and Challenges

Linda Krach MD, Jill Gettings MD, Jennifer Wilhelmy APRN, CNP, Britta Schwartzhoff DPT

Learning Objectives:

1. Describe 4 features available on power wheelchairs that can facilitate function, pressure relief, or transfers;
2. Describe issues that can contribute to the development of skin issues related to specific wheelchair features and list potential ways to mitigate the issues;
3. Give examples of patient characteristics that might benefit from a specific wheelchair feature;
4. Understand strategies to address third party payer questions about wheelchair features.

ODMS13: Research on Children with Cerebral Palsy in Upper and Low-and-middle Income Countries: Looking Through the ICF Lens

Hércules Leite PhD, Peter Rosenbaum MD, Pranay Jindal PT, PhD, Sandra Abdel Malek MSc

Learning Objectives:

1. Understand that cerebral palsy research in LMIC focus on interventions to reduce impairment;
2. Understand that activities, participation, and environmental factors are minimally addressed in LMIC studies;
3. Understand that many LMIC studies are published in journals that are not indexed in world-wide databases of scholarly journals;
4. Understand that future studies need to increase the acknowledgement of all ICF domains in research on CP in LMIC context.

ODMS14: Innovations in Measuring Dystonia and Choreoathosis Using Sensors and Markerless Motion Tracking in Children with Dyskinetic CP

Inti Vanmechelen MSc, Helga Haberehner PhD, Annemieke Buizer MD, Laura Bonouvrié MD, Elegast Monbaliu PhD

Learning Objectives:

1. Demonstrate a thorough understanding of the movement disorders in patients with dyskinetic cerebral palsy, supported by videos to obtain a maximal understanding in different situations;
2. Understand the currently available possibilities for instrumented measurements to objectively evaluate dystonia and choreoathetosis in patients with dyskinetic cerebral palsy such as mobile sensors and markerless motion tracking;
3. Demonstrate a thorough understanding of the advantages and disadvantages of using instrumented measurements for the evaluation of dystonia and choreoathetosis, and their possibilities for different functioning levels;
4. Describe the importance of instrumented measurement of dystonia and choreoathetosis for clinical decision making and the differentiation of invasive surgical options.

ODMS15: So, You Want to Do Mixed Methods Research? On Y Va!

Lesley Pritchard PhD, PT, F Virginia Wright PhD

Learning Objectives:

1. Participants will appreciate the value of using mixed method study designs for certain research questions;
2. Participants will understand the various ways in which qualitative and quantitative methods can be used together in pediatric rehabilitation research;
3. Participants will appreciate some of the challenges inherent in mixed methods research and some strategies to mitigate those challenges;
4. Participants will gain knowledge in mixed methods study design to apply to their own research.

ODMS16: An Innovative Approach for Measuring Community Walking Using Combined Accelerometry and GPS

Kristie Bjornson PT, PhD, Noelle Moreau PT, PhD, Phillip Hurvitz PhD

Learning Objectives:

1. To describe community walking activity levels and intensity of ambulatory children with CP relative to typically developing (TD) cohort;
2. To describe a process for combining accelerometry-based walking and GPS-based location information by matched time stamps;
3. Spatially explicit walking information as an outcome of interventions to enhance walking in children with CP;
4. Options for interpretation of this novel combined wearable device information.

76TH ANNUAL MEETING

SEPTEMBER 21-24, 2022

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