Free Papers A: Ortho- Hip

10:50am – 10:57am
A1: HIP SURVEILLANCE IN ACTION: PARENT EXPERIENCES AND PERSPECTIVES OF ENGAGING IN SURVEILLANCE
Rachel Toovey, MPHTM, PT; Dinah Reddihough, MBBS; H Kerr Graham, MD, FRCS(Ed), FRACS; Kate Willoughby, B Physio, D Physio

10:58am – 11:05am
A2: HIP SURVEILLANCE FOR CHILDREN WITH CEREBRAL PALSY: GMFCS I AND WGH TYPE IV GAIT PATTERN
Meredith Wynter, Bachelor of Physiotherapy; Megan Kentish, Bachelor of Physiotherapy, Cert of Phty (Paeds); Nicola Snape, Bachelor of Science, Masters of Health Science

11:06am – 11:13am
A3: OUTCOMES FROM TEN YEARS OF HIP SURVEILLANCE OF QUEENSLAND CHILDREN WITH CEREBRAL PALSY
Meredith Wynter, Bachelor of Physiotherapy; Nicola Snape, Bachelor of Science, Masters of Health Science; Megan Kentish, Bachelor of Physiotherapy, Cert of Phty (Paeds)

11:14am – 11:21am
A4: THE ODDS OF REQUIRED FURTHER TREATMENT AFTER INTERVENTION FOR HIP SUBLUXATION IN PEDIATRIC CEREBRAL PALSY: A META-ANALYSIS
Kunal Agarwal, MS; Cynthia Chen, BA; David Scher, MD; Emily Dodwell, MD, MPH

11:22am – 11:29am
A5: EVALUATING THE USE OF AN ELECTRONIC INCLINOMETER IN CORRECTING ROTATIONAL DISORDERS
Ishaan Swarup, MD; Christine Goodbody, MD; Elizabeth Gausden, MD; David Scher, MD; Roger Widmann, MD

11:30am- 11:45am QUESTIONS AND ANSWERS

11:46am- 11:53am
A6: THE LONG-TERM OUTCOME OF PELVIC ASYMMETRY DURING GAIT IN CHILDREN WITH CEREBRAL PALSY FOLLOWING UNILATERAL FEMORAL DEROTATION OSTEOTOMY
Lucio Perotti, MD; Chris Church, MPT; Robert Dina, BS; Nancy Lennon, MS, PT; John Henley, PhD; Julieanne Sees, DO, FAOAO; Freeman Miller, MD

11:54am- 12:01pm
A7: MINIMALLY INVASIVE DEGA ACETABULOPLASTY FOR NEUROMUSCULAR HIP DYSPLASIA
Jason Kappa, MD; Nicholas Fletcher, MD; Benjamin Shore, MD, MPH, FRCSC; Benjamin Allar, BA; Robert Bruce, MD
12:02pm - 12:09pm
A8: SAN DIEGO PELVIC OSTEOTOMY IN PATIENTS WITH CLOSED TRIRADIATE CARTILAGE
Jozef Murar, MD; Stephanie Ihnow, MD; Luciano Dias, MD; Vineeta Swaroop, MD

12:10pm - 12:17pm
A9: HIP STATUS AND LONG-TERM FUNCTIONAL OUTCOMES IN MYELOMENINGOCELE
Rachel Thompson, MD; Joanna Foley, MSN; Vineeta Swaroop, MD; Luciano Dias, MD

12:18pm - 12:25pm
A10: BARRIERS TO DISCHARGE AFTER RECONSTRUCTIVE HIP SURGERY IN NON-AMBULATORY CHILDREN WITH CEREBRAL PALSY
Eric Davis, BS; Patricia Miller, MS; Travis Matheney, MD; Karen Marcus, MD; Jodie Shea, BS; Brian Snyder, MD, PhD; Benjamin Shore, MD, MPH, FRCSC

12:26pm - 12:45pm QUESTIONS AND ANSWERS

Free Papers B: Etiology/Epidemiology & Neuroimaging
10:50am – 10:57am
B1: PROFILE OF CHILDREN WITH CEREBRAL PALSY AND CONGENITAL MALFORMATIONS IN CANADA
Marcel Severe, MD; Pamela Ng, MSc; Maryam Oskoui, MD, MSc, FRCPC, FAAN

10:58am – 11:05am
B2: DE NOVO AND RARE INHERITED COPY NUMBER VARIATIONS IN THE HEMIPLEGIC FORM OF CEREBRAL PALSY
Darcy Fehlings, MD, MSc, FRCP(C); Mehdi Zarrei, PhD; Lauren Switzer, HBSc, MSc; Richard Wintle, PhD; Stephen Scherer, PhD; Jan Willem Gorter, MD, PhD, FRCP; Anne Kawamura, MD; Marie Kim, MSC, MD, FRCP (C); Anna McCormick, MD, FRCP (Pediatrics), FRCP (PM&R); Ronit Mesterman, MD FRCP; Craig Campbell, MD, MSC; Carolyn Hunt, MD, FRCPC

11:06am – 11:13am
B3: MATERNAL BODY-MASS INDEX IN EARLY PREGNANCY AND RISK OF CEREBRAL PALSY
Eduardo Villamor, MD, DrPH; Kristina Tedroff, MD, PhD, Associate Professor; Mark Peterson, PhD; Stefan Johansson, MD PhD; Martin Neovius, PhD, MsC; Gunnar Petersson; Sven Cnattingius, MD, PhD, Professor

11:14am – 11:21am
B4: BIRTH COMPLICATIONS ASSOCIATED WITH CEREBRAL PALSY: ARE PROLONGED RUPTURES OF MEMBRANES A RISK FACTOR IN CHILDREN BORN AT TERM?
Maren Mynarek, Stud.Med; Solveig Bjellmo, MD; Jan Egil Afset, MD, Dr med (PhD); Stian Lydersen, Siv.Ing, Dr.Ing; Guro Andersen, MD, PhD; Torstein Vik, MD, PhD

11:22am – 11:29am
B5: SYSTEMATIC REVIEW OF NEUROMOTOR IMPAIRMENTS IN INFANCY FOLLOWING CONGENITAL ZIKA VIRUS INFECTION
Maureen Durkin, PhD, DrPH
11:30am- 11:45am QUESTIONS AND ANSWERS

11:46am- 11:53am  
**B6: ANALYSIS OF NEAR-TERM WHITE MATTER MICROSTRUCTURE TO PREDICT GAIT IN PRETERM TODDLERS: A MULTIVARIATE LINEAR REGRESSION MODEL USING FORWARD FEATURE SELECTION OPTIMIZED WITH CROSS VALIDATION**  
Katelyn Cahill-Rowley, PhD; Kornél Schadl, MS4; Rachel Vassar, MD; Kristen Yeom, MD; Jessica Rose, PhD

11:54am- 12:01pm  
**B7: NOVEL EARLY STRUCTURAL MRI SCORING SYSTEM FOR USE AT 29-35 WEEKS POSTMENSTRUAL AGE IN INFANTS BORN <31 WEEKS GESTATION**  
Joanne George, PT; Simona Fiori, MD; Jurgen Fripp, PhD; Kerstin Pannek, PhD; Jane Bursle, MBBS (Hons 1A), BBiomedSci; Randal Moldrich, PhD, BSc, BA; Andrea Guzzetta, PhD, MD; Alan Coulthard, MBBS BMedSci FRCS Ed FRCR FRanzCR; Robert Ware, PhD; Stephen Rose, PhD; Paul Colditz, MBBS, DPhil (Oxon); Roslyn Boyd, PhD, MSc (PT), BAppSc (PT), BSc (Anatomy), Pgrad (Biomech)

12:02pm- 12:09pm  
**B8: OPTIMIZATION OF MRI-BASED SCORING SCALES OF BRAIN INJURY SEVERITY IN CHILDREN WITH UNILATERAL CEREBRAL PALSY**  
Alex Pagnozzi, BEng; Nicholas Dowson, PhD; James Doeke, PhD; Simona Fiori, MD; Roslyn Boyd, PhD, MSc (PT), BAppSc (PT), BSc (Anatomy), Pgrad (Biomech); Stephen Rose, PhD

12:10pm- 12:17pm  
**B9: BRAIN ACTIVITY CHANGES FOLLOWING MOTOR SKILL TRAINING IN CHILDREN WITH UNILATERAL CEREBRAL PALSY: AN FMRI STUDY**  
Rodrigo Araneda, PhD; Laurence Dricot, Ir, PhD; Daniela Ebner-Karestinos, PT, PhD student; Julie Paradis, OT, PhD student; Andrew Gordon, PhD; Kathleen Friel, PhD; Yannick Bleyenheuft, PhD

12:18pm- 12:25pm  
**B10: FUNCTIONAL NEAR INFRARED SPECTROSCOPY MONITORING OF SENSORIMOTOR CORTICAL ACTIVITY DURING LOWER EXTREMITY TASKS IN CEREBRAL PALSY**  
Theresa Moulton, Ph.D., DPT; Ana Carolina de Campos, P.T, PhD; Katharine E. Alter, BA, MD; Theodore Huppert, PhD; Diane Damiano, PhD

12:26pm- 12:45pm QUESTIONS AND ANSWERS

Free Papers C: Therapy

10:50am – 10:57am  
**C1: NEUROPLASTICITY IN A RANDOMISED CLINICAL TRIAL OF MULTI-MODAL TRAINING OF CHILDREN WITH UNILATERAL CEREBRAL PALSY?**  
Lee Reid, BScPhysicist; Leanne Sakzewski, PhD, BOccThy; Stephen Rose, PhD; Roslyn Boyd, PhD, MSc
C2: OUTCOMES OF A MOTOR LEARNING-BASED INTERVENTION FOR CHILDREN WITH DIPLEGIC CEREBRAL PALSY: AN FMRI FEASIBILITY STUDY
Alicia Hilderley, MSc; Darcy Fehlings, MD, MSc, FRCP(C); Margot Taylor, PhD; Joyce Chen, PhD; Virginia Wright, BSc(PT), MSc, PhD

C3: EFFECT OF REHABILITATION ON MOTOR OUTCOMES AND BRAIN STRUCTURE CONNECTIVITY OF CHILDREN WITH DEVELOPMENTAL COORDINATION DISORDER
Sara Izadinajafabadi, PhD; Jill Zwicker, PhD, OT (C)

C4: LOSSES OF BALANCE DURING THERAPY EXPLAIN SOME OF THE VARIABILITY IN REHABILITATION OUTCOMES FOR TODDLERS WITH CEREBRAL PALSY
Julie Skorup, PT, DPT, PCS; Samuel Pierce, PT, PhD, NCS; Meghan Bochnak, PT, DPT; Laura Williams, MS; Laura Prosser, PT, PhD

C5: WHAT DO WE KNOW ABOUT PHYSICAL THERAPY POST SELECTIVE DORSAL RHIZOTOMY?
Renata D’Agostini Nicolini-Panisson, PhD; Ana Paula Tedesco, MSc; Maira Rech Folle, MSc; Márcio Vinicius Fagundes Fagundes Donadio, PhD

C6: EFFECT OF SHORT-BURST INTERVAL TREADMILL TRAINING ON MUSCLE ARCHITECTURE AND GAIT SPEED IN CEREBRAL PALSY
Noelle Moreau, PT, PhD; Kristie Bjornson, PT, PhD, MS; Amy Bodkin, PT, PhD, PCS; Sandra Poliachik, Ph.D

C7: EFFICACY OF A PARTICIPATION-FOCUSED THERAPY INTERVENTION ON PARTICIPATION IN PHYSICAL ACTIVITIES, HEALTH-RELATED QUALITY OF LIFE, AND BEHAVIOURAL BARRIERS TO PARTICIPATION IN CHILDREN WITH CEREBRAL PALSY
Sarah Reedman, BPhy (Hons); Roslyn Boyd, PhD, MSc (PT), BAppSc (PT), BSc (Anatomy), Pgrad (Biomech); Leanne Sakzewski, PhD, BOccThy

C8: MIYOGA – A RANDOMIZED CONTROLLED TRIAL OF A NOVEL MINDFULNESS YOGA PROGRAM TO ENHANCE ATTENTION FOR CHILD-PARENT DYADS WITH UNILATERAL AND BILATERAL CEREBRAL PALSY
Catherine Mak, BS; Koa Whittingham, PhD; Roslyn Boyd, PhD, MSc (PT), BAppSc (PT), BSc (Anatomy), Pgrad (Biomech); Ross Cunnington, PhD

C9: “THERE IS POWER IN MOBILITY”: A QUALITATIVE STUDY EXPLORING HOW CHILDREN LEARN TO USE POWER MOBILITY
12:18pm- 12:25pm
C10: GOAL SETTING IN CHILDREN WITH UNILATERAL CEREBRAL PALSY PARTICIPATING IN AN INTENSIVE MOTOR LEARNING AND BRAIN STIMULATION TRIAL: CHARACTERISTICS AND ASSOCIATIONS WITH OUTCOME
Eva Haspels, BA; Laura Brunton, PhD, MPT; Lesley Pritchard-Wiart, PhD, PT; John Andersen, MD; Mia Herrero, BScOT; Jacquite Hodge, MSc Neuroscience; Adam Kirton, MD, MSc, FRCPC

12:26pm- 12:45pm QUESTIONS AND ANSWERS

Free Papers D: Upper Limb & Miscellaneous

10:50am – 10:57am
D1: SELF-CARE IN CHILDREN WITH CEREBRAL PALSY AND ITS RELATIONSHIP TO MANUAL ABILITY: A LONGITUDINAL STUDY
Andrea Burgess, BOccThy(Hons1); Jenny Ziviani, PhD, MEd, B.A, BAAppSc (OT) ; Roslyn Boyd, PhD, MSc (PT), BAAppSc (PT), BSc (Anatomy), Pgrad (Biomech); Leanne Sakzewski, PhD, BOccThy

10:58am – 11:05am
D2: BIMANUAL UPPER LIMB ACTIVITY IN CHILDREN WITH TYPICAL DEVELOPMENT AND UNILATERAL CEREBRAL PALSY: VALIDATION OF A TRIAXIAL ACCELEROMETER APPROACH
Giuseppina Sgandurra, PhD; Martina Maselli, Eng; Elena Beani, PT; Ilaria Baldoli, Eng; Irene Braito, Dr.; Francesca Cecchi, Eng, PhD; Paolo Dario, Prof; Silvia Perazza, Dr.; Elisa Scola, PT; Roslyn Boyd, PhD, MSc (PT), BAAppSc (PT), BSc (Anatomy), Pgrad (Biomech); Giovanni Cioni, Prof.

11:06am – 11:13am
D3: THE PREDICTIVE VALUE OF DISTURBANCES IN NEUROMUSCULAR FUNCTIONS ON ACTIVITY OF UPPER LIMB IN CHILDREN WITH UNILATERAL CEREBRAL PALSY
Malgorzata Szmurlo, MD; Marek Jozwiak, MD, PhD; Anna Krzyzanska; Paulina Nowak

11:14am – 11:21am
D4: USE OF MARKERLESS MOTION CAPTURE TO EVALUATE PROPRIOCEPTION IMPAIRMENTS IN CHILDREN WITH UNILATERAL SPASTIC CEREBRAL PALSY: A FEASIBILITY TRIAL
Karen Chin, MS; Lindsey Soles, B.S.; David Putrino, PhD PT; Behdad Dehbandi, PhD; Victor Nwankwo, MD; Andrew Gordon, PhD; Kathleen Friel, PhD

11:22am – 11:29am
D5: ADVANTAGES AND COSTS OF ADAPTATION TO CORTICOSPINAL INJURY IN NEONATAL RATS
Tong Wen, PhD; Corey Pagnotta,; Sophia Lall, BS; James Markward, BS; Disha Gupta, PhD; Jeremy Hill, PhD; Shivakeshavan Ratnadurai-Giridharan, PhD; Jason Carmel, MD, PHD

11:30am- 11:45am QUESTIONS AND ANSWERS
11:46am- 11:53am
D6: EFFECT OF CELL DOSE IN AUTOLOGOUS CORD BLOOD INFUSIONS FOR CHILDREN WITH CEREBRAL PALSY
Jessica Sun, MD; Mohamad Mikati, MD; Jesse Troy, PhD, MPH; Kathryn Gustafson, PhD; Ricki Goldstein, MD; Colleen McLaughlin, DNP; Laura Case, PT, DPT, MS, PCS, C/NDT; Gordon Worley, MD; Allen Song, PhD; Joanne Kurtzberg, MD

11:54am- 12:01pm
D7: CHILDREN WITH CEREBRAL PALSY DISPLAY UNCHARACTERISTIC SOMATOSENSORY CORTICAL GATING FOR PERIPHERAL STIMULATIONS APPLIED TO THE FOOT
Max Kurz, PhD; Alex Wiesman, MS; Elizabeth Heinrichs-Graham, PhD; Tony Wilson, PhD

12:02pm- 12:09pm
D8: EVALUATING ACCESSIBILITY DESIGN FEATURES IN PATIENT REPORTED OUTCOME MEASURES OF FUNCTIONAL PERFORMANCE FOR USE BY YOUTH WITH NEURODEVELOPMENTAL DISABILITIES
Ariel Schwartz, MSOT; Jessica Kramer, PhD

12:10pm- 12:17pm
D9: NOVEL METHOD TO MEASURE SPATIAL VISION IN BRAIN-INJURED CHILDREN
Melis Suner, MD; Glen Prusky, PHD; Jeremy Hill, PHD; Jason Carmel, MD, PHD

12:18pm- 12:25pm
D10: VALIDATION OF A SECONDARY SCREENING TOOL FOR AUTISM SPECTRUM DISORDER IN TODDLERS TO IMPROVE PATIENT CARE AND WORKFLOW
Scott McLeod, MD; Parthiv Amin, MASc; Meredith Yohemas, MSc; Shauna Langenberger, MN; Jean-Francois Lemay, MD

12:26pm- 12:45pm QUESTIONS AND ANSWERS