

PRESENTED BY



HEALTH CENTRE  
FOR CHILDREN



30

THE 30<sup>TH</sup>

# INTERNATIONAL SEATING SYMPOSIUM

MARCH 4 - 7, 2014

VANCOUVER  CANADA

The Westin Bayshore

[www.interprofessional.ubc.ca/ISS2014](http://www.interprofessional.ubc.ca/ISS2014)



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## General Information

This international symposium addresses current and future developments in the areas of seating, positioning and mobility. Topic areas include service delivery, product development, research and outcomes. The format for the symposium will include pre-symposium, plenary, instructional, paper and poster sessions. Extensive opportunities will be provided for networking with colleagues.

### Symposium Objectives

At the completion of this symposium, participants will be able to:

- 1 Identify and compare new and existing positioning and mobility equipment
- 2 Discuss the emerging research evidence supporting seating and mobility practices
- 3 Identify resources for seating and mobility practice
- 4 Compare and discuss new seating and mobility techniques and interventions
- 5 Explain the advantages and disadvantages of a number of innovative service delivery models

### Location

#### The Westin Bayshore

1601 Bayshore Drive  
(parallel to West Georgia Street)  
Vancouver, BC, Canada V6G 2V4

### Hotel Accommodation

A special rate of CDN \$169.00 (plus applicable taxes) for a standard guest room (single/double) is available for conference delegates until February 10, 2014. Subject to availability. Reserve today by email: bayshore.reservations@westin.com or call toll-free: 1-800-WESTIN-1 or local: 1-604-682-3377. Please specify that you are booking under the "2014 International Seating Symposium" room block to receive these reduced rates.

### Registration

**ONLINE** | Secure, fast, online registration is available for Visa and MasterCard holders. Registration is available at [interprofessional.ubc.ca](http://interprofessional.ubc.ca)

**FAX** | Fax completed registration form to:  
1-604-822-4835

**CHARGE-BY-PHONE** | (please have MasterCard/Visa ready)  
Toll free within North America: 1-855-827-3112;  
Other callers: 1-604-827-3112

**MAIL** | Send the registration form with cheque to:  
IN 9541 Registration, Interprofessional  
Continuing Education, The University of British  
Columbia, Room 105-2194 Health Sciences Mall,  
Vancouver, BC, V6T 1Z3, Canada.

Participants paying by credit card outside of North America: Please inform your credit card company of the transaction as some banks put a block on credit card payments made outside your country.

### Tuition & Syllabus

Please see registration form (on back of brochure) for details. To receive the reduced early-bird rates, you must register by Monday, January 13, 2014. The tuition fee includes coffee breaks, reception, certificate

of attendance and lunches (provided Tuesday for pre-symposium registrants, and Wednesday and Thursday for symposium registrants). The symposium syllabus will be available online a week prior to the symposium. If you wish to purchase a print copy of the syllabus (to be received on-site), there is an additional \$30 fee (including tax). Due to printing deadlines there may be a limited number of syllabi available for those who register after February 10.

### Refund, Transfer & Cancellation

Refunds will be made (less a \$50.00 processing fee) if written notice of withdrawal is received by February 10, 2014. No refunds will be granted for withdrawal after that date. There is a \$25 replacement charge in case of a registration transfer. Please contact us prior to February 10, 2014 if you cannot attend and would like another person to come in your place. Sunny Hill Health Centre for Children and UBC Interprofessional Continuing Education reserves the right to cancel or move this program if registration is insufficient. In the event of cancellation, a refund will be issued.

### Credits

A Certificate of Attendance listing approved continuing education credits will be issued to all participants.

RESNA recognizes the continuing education offered by UBC Interprofessional Continuing Education in fulfillment of the requirements to renew ATP certification. For updates in regards to credits see our website: [interprofessional.ubc.ca/ISS2014](http://interprofessional.ubc.ca/ISS2014)

### Vancouver Tourism

Vancouver provides visitors with many opportunities to experience the West Coast lifestyle. If you would like more information on travelling in the area or other accommodations, please call these numbers or go online:

#### Tourism BC

TEL | 1-800-HELLO-BC (435-5622)  
[www.hellobc.com](http://www.hellobc.com)

#### Tourism Vancouver

TEL | 1-604-683-2000  
FAX | 1-604-682-6838  
[www.tourism-vancouver.org](http://www.tourism-vancouver.org)

### Committee

#### Maureen Story (Co-Chair)

BSR (PT/OT), Therapy Department, Sunny Hill Health Centre for Children, Vancouver, BC

#### David Cooper (Co-Chair)

MSc (Kinesiology), Rehabilitation Technologist, Therapy Department, Sunny Hill Health Centre for Children, Vancouver, BC

#### Catherine Ellens

BScOT, Occupational Therapist, Therapy Department, Sunny Hill Health Centre for Children, Vancouver, BC

#### Roslyn Livingstone

MSc(RS), OT, Occupational Therapist, Therapy Department, Sunny Hill Health Centre for Children, Vancouver, BC

#### Jo Nam

BComm, Senior Education Manager, Interprofessional Continuing Education, University of British Columbia, Vancouver, BC

#### Bonita Sawatzky

PhD, Associate Professor, Orthopaedics, University of British Columbia, Vancouver, BC

## Sponsors

We would like to acknowledge with special appreciation the financial contribution in the form of an unrestricted educational grant from the following organizations:

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## Pre-symposium Sessions & Exhibits Tuesday, March 4, 2014

### Schedule at-a-glance

There will be a morning break at 10:30 – 10:45; lunch (provided you have paid for the pre-symposium) at 12:15 – 13:15; and an afternoon break 14:45 – 15:00 for this day.

08:00 - 09:00	Registration & Breakfast				
09:00 - 12:15	Pre-symposium Sessions (1 full day, 4 half day morning sessions)				
	PS1	PS2	PS3	PS4	PS5
12:15 - 13:15	Lunch (provided for pre-symposium registrants)				
13:15 - 16:30	Pre-symposium Sessions or Exhibits (1 full day continued, 4 half day afternoon sessions)				
	PS1 (continued)	PS6	PS7	PS8	PS9
	Exhibits Open & Demonstration Stage				
	Viewing of the exhibits is complimentary for the public for this day only.  A stage will be set up in the exhibit foyer from 13:15-19:30. Nineteen organizations have been selected in a lottery to present an exciting 15-minute demonstration of their products. The schedule for the demonstration stage will be posted early in 2014. Please check the website for this information: <a href="http://www.interprofessional.ubc.ca/ISS2014">www.interprofessional.ubc.ca/ISS2014</a> .				
17:30 - 19:30	Exhibits & Demo Stage Continued				
19:30	Adjourn				



# Pre-symposium Sessions

## Tuesday, March 4, 2014 (continued)

### Full Day Session: PS1 (09:00 - 16:30)

#### PS 1 | **ADVANCED**

##### Measuring Wheelchair Seated Posture and Seating Supports: A Practicum

*Kelly Waugh, Barbara Crane*

*(Limited Enrollment: 60)*

In this hands-on workshop, participants will learn how to take linear and angular measurements of a seated person's body and their seating support surfaces, based on A Clinical Application Guide to Standardized Wheelchair Seating Measures of the Body and Seating Support Surfaces. This guide, developed by the instructors through a grant from the PVA Education Foundation, was written to facilitate the adoption of the principles and measures contained in ISO 16840-1:2006 Wheelchair seating. Part 1: Vocabulary, reference axis convention and measures for body segments, posture and postural support surfaces. The workshop will begin with a power point lecture and discussion of the foundational principles, terms and methodologies contained in the clinical guide. This introduction will be followed by a review of each of the sections of the clinical guide, covering angular and linear body measures, and angular and linear seating support surface measures. During these sessions, selected measures from each section of the guide will be explained and measurement methodologies will be demonstrated, followed by time for hands on practice. Participants will be divided into groups and provided with simple tools for measurement and a sample worksheet. Presenters will guide the groups as they practice taking both angular and linear measures of a seated person and a wheelchair body support system. The clinical application of these measures will be discussed and emphasized throughout the course.

#### Learning Objectives

- List three potential benefits of being able to objectively measure and document a person's wheelchair seated posture.
- List three examples each of linear and angular body measures and their corresponding support surface measures using accurate terminology.
- Describe the difference between absolute and relative angles of body segments and seating support surfaces.
- Demonstrate an understanding of angular measures by correctly matching the angular measurement term to its correct description, for selected body and support surface angular measures.
- Demonstrate an understanding of linear measures by correctly matching the linear measurement term to its correct definition, for selected body and support surface linear measures.
- Demonstrate how to measure the following: three relative body segment angles; three relative support surface angles; three absolute body segment angles; three absolute support surface angles; four linear body dimensions and four linear support surface dimensions.

### Morning Half Day Sessions (09:00 - 12:15: PS 2, 3, 4, 5)

#### PS 2 | **INTERMEDIATE**

##### Shaping Up and Shipping Out: Comparing Customized Molded Seating Products

*Jessica Presperin Pedersen, Timothy Caruso*

This is a hands-on session providing the participant with an opportunity to compare commercially available seating products which take a person's body shape providing a final seating product for attachment to a mobility base. Comparisons will include the methodology for taking the body shape, process for procuring the final product, hardware used to attach the product to a mobility base, and company warranties.

#### Learning Objectives

- Identify four companies providing commercialized custom seating in North America.
- Explain how various body shapes are taken to produce the final product for each company.
- Compare molding techniques, hardware, and the process of procuring the final product.

#### PS 3 | **INTERMEDIATE**

##### Pediatric Power Mobility: How Young? Who Can Do It? How Do You Teach Them?

*Kay Koch, Lauren Rosen*

Children are in constant motion exploring and learning. This session will explore all the considerations and challenges pertaining to pediatric power mobility. Features including the power base, input device selection, seating, growth, transfers and transportation options and client goals will be discussed. Case studies will be included.

#### Learning Objectives

- Identify two key factors to help determine who is a candidate for powered mobility.
- List elements of the power mobility evaluation documentation that will ensure that the mobility is comprised of the needed features.
- Explain how to build growth into the system and keep it functional.

#### PS 4 | **INTERMEDIATE**

##### Seating for Clients with Dementia and Challenging Behaviours

*Carmen Murray, Katherine Moros*

Clients with moderate to severe dementia often have significant issues related to falls and mobility. Some clients also present with challenging behaviours during this stage of the illness. The provision of seating and mobility devices is common practice. However it is the integration of the behavioural component that presents a challenge. Not only does the mobility device need to meet the safety requirements, it must also enhance the client's mobility and meet their functional needs over the course of the progressive illness. This presentation will provide the clinician with a structured method, the Canadian Practice Process Framework (CPPF), to address the seating and mobility needs of clients with dementia and challenging behaviours. The CPPF is a framework designed to enable occupational therapists to facilitate client-centred, evidence-based and reflective practice. Case studies will be used to describe the assessment, trial and prescription of equipment and highlight the clinical reasoning related to equipment selection that balances the client's physical presentation and behavioural management. It will also discuss risks related to equipment setup and use of positioning devices and ways to mitigate these risks. The workshop will be interactive in nature and will engage the participants by using a problem-based learning approach to enable participants to apply the process to their own clinical practice.

#### Learning Objectives

- Use a concrete, structured process to assess, trial and prescribe seating for clients with dementia and challenging behaviours.
- Link assessment findings to identify issues, goals and equipment recommendations.
- Identify risks related to use of seating equipment and mobility devices and ways to mitigate these risks.

## Pre-symposium Sessions

### Tuesday, March 4, 2014 (continued)

#### PS 5 | INTERMEDIATE How Suppliers Can Get the Information They Need from Therapists

Susan J. Taylor, Jean Minkel

In our field of seating and mobility, there seems to be far more demand than there are experienced people to provide services. It is not unusual for one of the team members to lack experience. It becomes incumbent on the experienced team members to ensure the necessary information is collected for the best possible outcome for the client. This course will address one part of the equation: the more experienced supplier working with a novice therapist. The therapist, as we know, provides an important role in the evaluation, provision and training processes. The therapist understands function, movement, tone, and how they affect the client's ability to perform functional skills and activities of daily living. The therapist may not realize how to apply these skills to wheelchairs and seating. Asking the right questions and facilitating these interactions will be covered in this course.

##### Learning Objectives

- Name three questions to ask relevant to range of motion and tone and movement disorders (mat evaluation).
- Name three questions to ask relative to performance of ADL's from the wheelchair level.
- Name three questions relative to the client's past history.

12:15 Lunch (provided for pre-symposium registrants)

13:15 Exhibits & Demo Stage

### Afternoon Half Day Sessions (13:15 - 16:30: PS 6, 7, 8, 9)

#### PS 6 | INTERMEDIATE | MANUFACTURER Skin: What Every AT Clinician and Provider Need to Know

Linda Norton

Skin is the largest organ of the body, and is impacted by the seating and mobility devices. People with Spinal Cord Injuries have an 80% lifetime risk of developing pressure ulcers, and the prevalence of pressure ulcers in the health care system is approximately 12% in the United States and 26% in Canada. Clearly pressure ulcers are a problem, however are we integrating all the prevention approaches we can in the provision of equipment, or are other issues taking priority? This workshop will explore the evidence regarding pressure ulcer prevention and management, and apply that evidence to the provision of seating and mobility devices. Participants will be encouraged to apply the principles discussed to currently available products found in the exhibit hall.

##### Learning Objectives

- Discover the research evidence behind the prevention and management of pressure ulcers.
- Explore ways to reduce the forces contributing to pressure ulcer development through the use of currently available equipment and technology.
- Explore the balance between reducing the risk of pressure ulcers and other goals and priorities.

#### PS 8 | INTERMEDIATE Teaching Manual Wheelchair Skills

Ian Denison (Limited Enrollment: 30)

This hands on workshop provides clinicians with the tools needed to teach wheelers how to handle their wheelchairs efficiently and effectively. In every skill covered in this session, efficiency is the goal. Mastery of each skill occurs when the wheeler can complete each task using the least amount of energy possible.

##### Learning Objectives

- Know how to teach a number of manual wheelchair skills.
- Understand how chair configuration and set up impacts a chairs performance.
- Have spent a significant amount of time practicing various skills.

#### PS 7 | BEGINNER Special Needs Stroller or Manual Wheelchair for the Young Child: How can the Clinician Assist Parents to Make the Best Decision?

Beth Ott, Elaine Antoniuk, Veronica Naing

Clinical case studies will be used to illustrate a decision-making process. Participants will have the opportunity to view and systematically identify the features of several strollers and manual wheelchairs available in the exhibit hall. For each case study, participants will engage in clinical decision-making to choose the most appropriate mobility base.

##### Learning Objectives

- Use a systematic approach to identify the features of a stroller and manual wheelchair.
- List several pros and cons of special needs strollers and paediatric manual wheelchairs.

#### PS 9 | ADVANCED I'm Not Straight, So Please Don't Make Me! Custom Seating Do's and Don'ts

Sheila Buck

Custom seating is defined as gaining specific shape contours for an individual to maximize surface contact and postural support. This is good for prolonged sitting where postural support and pressure relief is required, or for clients with inadequate sensation. Customized seating can also prevent friction and shearing from occurring when experiencing downward migration, as is often seen with modular systems. As a result, the client no longer needs to "hold on" and allows them to free their hands for functional activity and propulsion. This session is designed to review the decision-making process utilized in determining whether to provide your client with "off-the-shelf" seating or customized seating products. This will include a look at the clinical presentation of the client, and assessment/simulation data required. Utilization of specific contouring foam, gel, and air products to enhance a customized fit will also be considered, as well as critical techniques in moulding to achieve a desired fit. Participants will understand how the assessment and simulation phase is critical to the ability to begin completing moulded shapes. Common orthopedic and tonal changes will be reviewed with emphasis on determining when to mould. We will also review how the final shape can be enhanced to maximize the sitting tolerance, increase the pressure relief capabilities, and to accommodate orthopedic and tonal changes through 3 pt. positioning. Alternate materials used in off-the shelf seating will also be explored in how they can enhance molded systems.

##### Learning Objectives

- Recognize how to determine who requires custom seating based on presentation, not diagnosis.
- Describe the utilization of custom seating products.
- Identify parameters of seating related to asymmetrical shapes.
- Identify forces required for correction or accommodation of seated postures.
- Understand techniques and measurements to utilize when creating contoured seating including gravity and its forces.

17:30 - 19:30 Exhibits & Demo Stage (continued)



# Main Symposium

## Wednesday, March 5, 2014

08:00	Registration	Exhibits Open, Continental Breakfast & Posters
08:30	Opening Remarks	<i>Dave Cooper &amp; Maureen Story (co-chairs)</i>
08:50	Keynote Address	Client to Provider: Spectrum of Health Care and Wheelchair Experiences <i>Dave Calver</i>
09:35	Plenary	Wheeled Mobility and Social Participation <i>Ben Mortenson</i>
10:00	Plenary	Rising to the Occasion: Seat Elevators and Their Effect on Communication Patterns of AAC Users <i>Ciara Fitzsimons</i>
10:25	Poster Presentations	Each poster presenter will give a 1-minute & 1-slide presentation
10:40	Break	Refreshments & Exhibits
11:30	Instructional Session A	

### A1 | ALL Special Racers Program: How and Why to Start a Modified Ride on Toy Program for Clinic, Research and/or Community

*James (Cole) Galloway*

In this whirlwind workshop, I will provide a brief overview of the major components of this unique program. Components discussed will range from the practical (ex. toy and modification choice) to the quantitative (ex. tracking data in real world settings) to the digital (ex. use of YouTube and Facebook) to the theoretical (ex. the developmentally inspired principles we use to create new technology and training to provide children with peer typical levels of mobility and socialization).

#### Learning Objectives

- Critique how modified Ride on Cars (ROCs) can be used for addressing goals across the ICF spectrum.
- Determine the best Special Racers Program for their particular clinical, research and/or community setting.
- Utilize various informational resources including other interested professionals attending this presentation.

### A2 | INTERMEDIATE Power Wheelchairs for Persons with ALS: Needs Over Time

*Amber Ward*

ALS is a progressive disorder where clients have continual needs for changes and modifications over time to their power wheelchairs. We sent out surveys at 1 month and 6 months to determine what our ALS clients need and want in their power wheelchairs over time, and will share those results.

#### Learning Objectives

- Describe three components needed for a flexible power wheelchair for a person with ALS.
- Identify why loaner equipment and experienced staff/vendors are vital for meeting client's needs who have ALS.
- Recognize what persons with ALS say they need, want and use in a power wheelchair over time based on the survey results.

### A3 | INTERMEDIATE | MANUFACTURER Wheelchair-Seated Posture Measurement in a Clinical Setting

*Takashi Handa, Barbara Crane, Kelly Waugh, Toru Furui, Sachie Uyama*

Presenters will demonstrate posture measurement techniques applicable to clinical settings using newly developed "Seated Posture Measurement" tools. Participants will be provided with the opportunity to practice measuring seated posture using these tools and will be able to obtain one of the computer software based tools to take home with them.

#### Learning Objectives

- Summary of the ISO16840-1, Clinical Application Guide and, old and new SPM tools (including reliability and validity research results).
- The relationship between the ISO16840-1 and measurements derived from X-ray images.
- How to conduct SPM in a clinical setting using the presented SPM tools.
- Describe a series of steps to clinically measure seated posture according to the ISO16840-1, and will be able to conduct SPM in a clinical setting.

### A4 | INTERMEDIATE Update on the Functional Mobility Assessment Uniform Data Set Registry

*Richard M Schein, Mark R Schmeler, Carmen P DiGiovine*

The purpose of the study was to determine if a uniform and minimum data set related to wheelchair users and use of a standardized outcome measure could be deployed across a large sample of people with geographic diversity who typically receive wheeled mobility devices. This session will present updated developments of the Functional Mobility Assessment registry and preliminary analyses.

#### Learning Objectives

- Identify two reasons why the field needs a mobility registry.
- Describe two features that should be included in the design of a registry to ensure adoption.
- List two features of uniform data.

### A5 | INTERMEDIATE | MANUFACTURER Respiratory Issues and Considerations for Cerebral Palsy Clientele in Wheeled Mobility

*Karen Missy Ball*

A functioning respiratory system is critical for survival, but it is often overlooked when prescribing equipment needs. Respiratory function can be impacted by muscle recruitment choices, gravity, neuromuscular impairments, skeletal issues, abnormal posturing, and secondary diagnoses. Understanding motor development in cerebral palsy, skeletal complications that can arise and the individual's potential for change will enable the equipment specialist to choose equipment more effectively.

#### Learning Objectives

- List at least three muscle groups involved in inspiration and expiration and describe how they facilitate respiration.
- List at least two muscle strategies that can develop in clients with cerebral palsy that interfere with respiration and postural control and equipment choices that can address these.
- Identify at least two skeletal abnormalities in CP that impact on the thoracic cavity, specifically describe how these hinder respiration and provide appropriate seating options to address.

### A6 | INTERMEDIATE Confused? Making Sense of Transportation Standards and Best Practice Recommendations

*Tamara J Franks, Sue Johnson*

Whether the child is using a specialized car safety seat or a wheelchair in the passenger vehicle, the same key components apply: appropriate selection, proper securing of the rider and proper installation of the device. Applicable safety standards and best practice recommendations will be discussed. Case studies will highlight challenges.

#### Learning Objectives

- Discuss pending changes to LATCH weight limits and the resulting impact on installation and use of specialized car safety seats in passenger vehicles.
- Recognize how WC-18, WC-19 and W-20 affect use of wheelchairs in passenger vehicles.
- Demonstrate importance of comparing and contrasting vehicle, and manufacturer specifications for proper use of transportation devices, either specialized car safety seats or wheelchairs, in the passenger vehicle through case study analysis.

# Main Symposium

## Wednesday, March 5, 2014 (continued)

12:30 Lunch (provided) Exhibits & Posters

14:00 Simultaneous Paper Sessions #1 (Each paper will be 10 minutes in length with 5 minutes of Q & A)

	SALON 1	SALON 2	SALON 3
14:00	The Effects of Vibration on Spasticity in Individuals with Spinal Cord Injury: A Systematic Review <i>Mahsa Sadeghi</i>	Transforming "Postural Instability" into "CASPER Stability" for Children with Cerebral Palsy <i>Jun Murakami, Diane M Collins</i>	Development of Accessible Powered Mounting Technology <i>Dianne Goodwin, Caroline Portuguese</i>
14:15	Measuring Sitting Posture, Seated Postural Control and Functional Abilities in Children: A Systematic Review <i>Debbie Field, Roslyn Livingstone</i>	Camp Gizmo - Unique Teaming Style <i>Alison Kreger, Wendy Harris-Altizer</i>	Functional and Psychosocial Impact of Accessible Mounting Technology <i>Dianne Goodwin</i>
14:30	An Evaluation of the Impact of a Simulated Dynamic Foot Support <i>Hannah Victoria Dalton</i>	A Multidisciplinary Seating Clinic and Wheelchair Bank Services in Hong Kong <i>Eric WC Tam</i>	Algorithm for Identifying Pressure Relieving Activities for Large Pressure Mapping Datasets <i>Carmen P. DiGiovine, Theresa F. Berner</i>
14:45	Outcome Evaluation of Functional Movement in Clients on Prescribed Seating System <i>Barbara C M Chan</i>	Development of a Training Program for Seated Posture Measurement <i>Takashi Kinose</i>	Perceptions of an Integrated Exoskeleton-Wheelchair Mobility Concept <i>Jaimie F Borisoff, Johanne Mattie</i>
15:00	Standing Prevents Contracture and Reduces Hip Subluxation and Scoliosis in Children with Cerebral Palsy <i>Ginny Paleg</i>	Providing Feedback to Manufacturers of Low-Cost Pediatric Wheelchairs <i>Joy Wee</i>	Results of a Pilot Feasibility Study to Evaluate the Accuracy and Reliability of Seated Posture Measurement Using Existing and Emerging Clinical Tools <i>Kelly Waugh, Joel Bach</i>

15:15 Break Refreshments & Exhibits

16:00 Instructional Session B

### B1 | INTERMEDIATE Use of Gait Trainers Facilitates Learning, Language and Memory in Infants and Toddlers

*Ginny Paleg*

This course will begin with a review of journal articles linking mobility with cognition. New studies in how use of mobility devices and therapy change brain structure will be used to support the use of gait trainers in infants and toddlers. Three cases will be used to illustrate how use of gait trainers can accelerate GMFM scores, development of language, memory and cognition.

#### Learning Objectives

- Describe the application of general principles for intervention to promote positive neural plasticity and optimal development in early childhood.
- Using an example of a child from their caseload, suggest specific, feasible, evidence-based intervention techniques to promote positive neural plasticity and optimal development.
- Explain to parents and colleagues the evidence we have that supports early intervention to promote positive neural plasticity in early childhood.

### B2 | INTERMEDIATE Living Long with Spinal Cord Injury: Wheelchair Seating Challenges and Solutions

*Jo-Anne M Chisholm, Joanne Yip*

As a person ages with a spinal cord injury, changes occur in posture and functional abilities. In this instructional session, participants will learn about living long with spinal cord injury through lecture, first person account and case study reviews showing specific seating and mobility solutions. Evidence from research will be referenced.

#### Learning Objectives

- Identify seating considerations (posture, pressure, function, pain, cardiovascular) for persons with spinal cord injury.
- Explain the impact of living long with spinal cord injury on seating and mobility.
- Describe seating and mobility solutions for persons with spinal cord injury.

### B3 | BEGINNER | MANUFACTURER Ethics and Certification: Raising the Bar of Professionalism – An Update

*Stefanie Laurence, Brenlee Mogul-Rotman, Mike Seidel, Carmen P. DiGiovine*

The RESNA credentialing process began in 1992 to set a standard for the Assistive Technology industry. With more than 3700 individuals currently holding the ATP credential, the stakes have increased significantly and the complaints review process undertaken by the Professional Standards Board (PSB) has become an active cornerstone of the credentialing process. The RESNA Code of Ethics and Standards of Practice are a blueprint for the ethical provision of service to consumers and provides a common base for therapists and providers alike. This workshop will highlight the Code of Ethics and Standards of Practice, the complaint and review process and the relevancy of the certification for therapists and providers across Canada and the United States.

#### Learning Objectives

- Identify three goals of the Standards of Practice.
- Identify three goals of the Code of Ethics.
- Explain the key components in the complaint review process.
- List five Standards of Practice and how they may be violated.

### B4 | BEGINNER Comprehensive Considerations with Alternative Drive Control Access

*Jay Doherty*

Alternative controls come with complications of their own when setting up an end-user. The evaluation team often focuses on access to the electronics for driving before considering how power positioning or other components may affect access to the input device. This course will review the considerations that must be examined when recommending alternative controls.

#### Learning Objectives

- Define two ways in which cognition and motoric involvement can complicate access to electronics.
- List two reasons tracking technology should be considered for users of alternative controls.
- Explain how tilt and recline can affect access to different drive controls.



# Main Symposium

## Wednesday, March 5, 2014 (continued)

16:00 Instructional Session B (continued)

B5 | [BEGINNER](#) | [MANUFACTURER](#)

### Dynamic Tilt Wheelchairs: Applying the Evidence

[Sheilagh Sherman](#)

What degree of tilt is required to achieve clinically significant pressure reduction at the pelvis when using a tilt-in-space wheelchair? How often should a person be repositioned in a dynamic tilt wheelchair? This workshop reviews the research that answers these questions and illustrates translating knowledge into practice.

#### Learning Objectives

- Accurately articulate the degree of tilt and/or recline that is required for clinically significant pressure reduction at the pelvis.
- Apply the evidence when prescribing dynamic tilt wheelchairs and re-positioning schedules.

17:00 Welcome Reception & Exhibits

Hors d'oeuvre and a beverage ticket will be provided to all registered delegates.

# Main Symposium

## Thursday, March 6, 2014

08:00 Registration Exhibits, Continental Breakfast & Posters

08:30 Opening Remarks [Bonita Sawatzky & Stephen Tredwell](#)

08:40 Plenary “‘Micro Environments’: AT, Ther Ex and Voc Rehab Walk into a Bar..”  
[James \(Cole\) Galloway](#)

09:05 Plenary 3D Printing Technologies: The Future Backbone Of Complex Rehab Product Design  
[Richard Pasillas](#)

09:30 Break Refreshments & Exhibits

10:20 Simultaneous Paper Sessions #2 (Each paper will be 10 minutes in length with 5 minutes of Q & A)

### SALON 1

- 10:20 A Personalised Shock Absorbing Positioning System for the Management of Movement Disorders  
[Rosaria Eugenia Caforio](#)
- 10:35 Necessity is the Mother of Invention: A Novel Walking Device which Facilitates Development and Participation  
[Debby Elnatan, Nava Gelkop](#)
- 10:50 A System for Measuring Pelvic Position Using Electromagnetic Tracking  
[Joel M Bach](#)
- 11:05 The Tips for Spreading the Benefits of “Rysis”; Wheelchair Seated Posture Measurement Based on ISO 16840-1  
[Toru Furui, Masayo Furui, Takashi Handa](#)
- 11:20 The Design and Evaluation of a Novel System for Predicting Wheelchair and Occupant Stability  
[Simon Fielden](#)

### SALON 2

- Age-Related Changes to Wheelchair Efficiency and Peak Power Output in Novice Able-Bodied Males  
[Nathaniel Hers](#)
- Adaptations Over Prolonged Manual Wheeling in Experienced Wheelchair Users and Able-Bodied Participants  
[Megan K MacGillivray](#)
- Two Approaches to Manual Wheelchair Configuration and Effects on Function for Individuals with Acquired Brain Injury  
[Angela Dillbeck](#)
- An Air-Cell-Based Cushion Provides Better Internal Tissue Load Distributions in the Seated Buttocks with Respect to Foams  
[Amit Gefen](#)
- Frequency of Pressure Relieving Activities for Power Wheelchair Users: Case Studies  
[Carmen P. DiGiovine, Theresa F. Berner](#)

### SALON 3

- Exploring Decision Making in Wheelchair Procurement: Informing Seating Service Practice  
[Rachael E Schmidt](#)
- A Social Justice Scrutiny of the Seating Service Experiences: What Can We Learn?  
[Rachael E Schmidt](#)
- Whole Body Dynamic Seating for Children with Extensor Spasms  
[Tim Adlam](#)
- Exploring Participation Measures Suitable for Children Who Use Power Mobility  
[Debbie Field](#)
- The Wheeling While Talking Test: A Novel Measure of Divided-Attention and Wheeled Mobility  
[Ed Giesbrecht, William C Miller](#)

11:35 Lunch (provided) Exhibits & Posters

12:00 Poster Session Poster presenters will be available during this time to answer questions. The posters will be set up for delegates to view throughout the symposium.

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# Main Symposium

## Thursday, March 6, 2014 (continued)

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13:00 Instructional Session C

C1 | ALL  
Ethical Provisions of Wheeled Mobility in Developing Countries

*Dave Calver, Michael Allen*

While socio-economic, political, environmental, resource limitations and other factors may limit access to wheelchairs in developing countries, they remain an essential mobility device as well as a means to equal rights, health care, employment and full inclusion in society. This talk examines current service delivery models and guidelines for future service provision.

**Learning Objectives**

- Understand the need for culturally sensitive wheelchair seating services in developing countries.
- Identify and understand some of challenges that charity/ donation based wheelchair provision creates in terms of wheelchair provision.
- Understand the need for assessment, prescription, fitting, education and follow up with the provision of wheelchairs in developing countries.

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C2 | BEGINNER  
Hypotonia: Implications for Equipment Recommendations

*Ginny Paleg*

This course will begin with a systematic review of the literature and potential developmental outcomes associated with hypotonia. A new tool to identify infants and children with clinically-significant hypotonia will be presented and discussed. Evidence-based interventions for hypotonia with a focus on equipment recommendations will be reviewed.

**Learning Objectives**

- Recognize objective signs of hypotonia in infants and young children.
- Understand the spectrum of abnormal developmental outcomes associated with hypotonia.
- Learn to use the Morgan Paleg Hypotonia Scale to help identify which children with hypotonia are in need of additional evaluation and therapeutic intervention.
- Identify evidence-based interventions that may be helpful in treating infants and children with hypotonia.

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C3 | INTERMEDIATE  
From Assessment to Prescription of Seating System - From Infancy Through Childhood to Adolescence

*Sandra LF Shum, Eric WC Tam, Ajax HY Lau, Barbara CM Chan, Ophelia HL Chan*

This workshop is designed for therapists who are interested in handling young clients with neuromuscular problems. The aim of this workshop is to explain the different characteristics of each age group in paediatric population and their different seating needs pertaining to their underlying pathologies. Early intervention for postural control and prevention of deformities in infancy will be shared. Case studies will be used to illustrate the approaches on addressing different seating needs and practical hints will be shared. Experience sharing on commercially available devices and customized adaptations will also be included.

**Learning Objectives**

- Identify very young children with risk of developing deformities.
- Prescribe simple modifications on ordinary children furniture.
- Recognize special characteristics of the major groups of children with neuromuscular problems and their special seating needs.

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C4 | INTERMEDIATE | MANUFACTURER  
Electronic Platforms for Powered Wheelchairs - A Review of Available Systems

*Amy Bjornson, Doug Whitman*

This presentation will analyze and compare the major electronics platforms available for power wheelchairs. Comparisons will include performance parameters, programmability, expandability and remote diagnostic capabilities. We will also cover the ability to integrate ECU's, communication devices and everyday appliances such as iPods and tablets with the wheelchair electronics. Features and considerations of each will be discussed. Determination of client need, assessment strategies for selection of an appropriate system with consideration for future needs will be included.

**Learning Objectives**

- Confident creation of client needs' list for electronics platform.
- Understand key features of each electronics platform.
- Understand integration capabilities with alternate controls and household devices with each electronics platform.

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C5 | INTERMEDIATE | MANUFACTURER  
Manual Wheelchair Configuration and Training: An Update on the Evidence 2014

*Carmen P. DiGiovine, Theresa F. Berner, Tina Roesler*

In the recent years, there has been an abundance of evidence related to manual wheelchair selection, set-up, and consumer training. We will present an overview of the recent literature, focusing on the specific areas of wheelchair selection, training, environmental adaptations, exercise, outcomes and gait.

**Learning Objectives**

- Identify five topical areas related to wheelchair configuration and training.
- Implement at least five clinically relevant studies, one from each of the five topical areas, into their own clinical practice.

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C6 | INTERMEDIATE  
Deep Dive into Defensible Documentation

*Elizabeth Cole*

More rigorous requirements and greater scrutiny regarding the medical justification for durable medical equipment and complex rehabilitation technology have made defensible documentation even more critical. We can no longer write our documentation without pertinent objective data and clear analysis of the results as they relate to the medical and functional needs of the specific individual. This course will facilitate critical thinking and assist the professional in developing sound documentation practices. The presentation will provide a comprehensive look at the elements of appropriate and complete clinical and technological documentation for complex rehab technology. Participants will consider case examples from the perspective of a reviewer and engage in interactive discussion regarding common documentation practices, mistakes, red flags, and recommended practices.

**Learning Objectives**

- Explain why and how CRT documentation standards have changed.
- Understand the elements and purpose of: (a) clinician documentation, (b) "corroborating" supplier documentation.
- Identify at least 10 top mistakes commonly seen in clinical documentation.
- Identify at least 10 elements of defensible documentation.
- Understand the reviewers' perspective and the constraints of the funding agency.
- Review, analyze, and identify "good" versus "bad" elements in case examples.

14:00

Room Change



# Main Symposium

## Thursday, March 6, 2014 (continued)

14:10 Instructional Session D

D1 | INTERMEDIATE

### Complex Rehab Early Intervention Seating: Can We Make The Clinician And The Family Happy With One Product?

*Jill Monger, Eli Anselmi*

Most mobility devices currently available may meet therapeutic needs of the young child but often fail to meet the needs of the family. The products that meet the needs of the family do not often provide features necessary for therapeutic seating or positioning of the child. This presentation will present current, new and emerging technology options that provide the opportunity for both therapeutic outcomes and successful family inclusion.

#### Learning Objectives

- Discuss differences between the clinician's goals and families goals for very young children with special needs.
- Describe features available (in current technology) to meet clinician and family goals.
- Recognize new and emerging technology that will features required to meet both clinician and family goals.

D2 | INTERMEDIATE

### Beyond the Mat Assessment

*Karen D. Hardwick*

This session describes a range of assessment techniques and equipment choices for seating and positioning for individuals with physical, developmental and medical issues. Evaluation techniques include circulatory, nutritional, respiratory, and skin related strategies. Case studies utilizing assessment and equipment solutions will be presented.

#### Learning Objectives

- Name three assessment methods for seating and positioning for individuals with medical needs.
- State three medical conditions that require specialized positioning.
- Relate the general purpose and process for a Head of Bed Evaluation.

D3 | BEGINNER

### 24 Hour Positioning: Why is it Important and How Do I Get it Funded?

*Terri L. Oxender*

24 hour positioning has long been recognized throughout the European community as a necessary component of the treatment plan for individuals with physical impairments. This concept is just now gaining popularity in the US although application has been slow. Many healthcare providers, including DME providers and therapists, as well as consumers are not aware of how to implement 24 hour positioning and what tools are available to assist with implementation. The importance of 24 hour positioning and the essential equipment will be discussed based upon clinical experience and a review of peer research.

#### Learning Objectives

- Identify the importance and benefits of 24 hour positioning.
- Identify DME/adaptive equipment to assist with 24 hour positioning.
- Identify potential funding options through traditional and alternative funding sources.

15:10 Break

Refreshments, Exhibits & Posters

16:00 Plenary Panel

### Efficacy and Effectiveness of Seating and Wheeled Mobility Interventions: Where Do We Go from Here?

*James (Cole) Galloway, Maria Jones, William C Miller*

*Facilitator: Roslyn Livingstone*

Randomized controlled trials are considered to provide the strongest evidence of efficacy but are challenging to complete with assistive technology interventions for many reasons. Recommendations around strength of evidence for seating and wheeled mobility interventions are often downgraded as most research in this area tends to be descriptive or non-randomized. There is debate in the literature about whether other research methodologies are more appropriate for seating and wheeled mobility interventions and for the outcomes that are meaningful to our clients. It has also been suggested that guidelines for grading of recommendations may need a different approach in this field. This panel discussion will present different views and experiences with conducting research in the area of seating and wheeled mobility and, with audience participation, debate the way forward.

17:00 Adjourn

19:00 30<sup>th</sup> Anniversary Celebration: Evening at the Aquarium (\$30)

The popular *Evening at the Aquarium* is back and sponsored exclusively by PDG. Join us in celebrating 30 years of ISS at the world renowned Vancouver Aquarium with a live dolphin show, spectacular under water exhibits, a fantastic buffet dinner, and live music throughout the evening. This event sold out at the last symposium and is anticipated to sell out quickly for 2014. It is encouraged to reserve early to ensure you will be able to enjoy this outstanding event. Bus transportation will be available at the beginning and ending of the event. The Aquarium is less than 2km (~1mi) away from the hotel by walking along the waterfront.

D4 | BEGINNER | MANUFACTURER

### License to Drive?!? Are You Sure About That?

*Angie Kiger, Steven Boucher*

Do you wish you knew how to take your power mobility evaluations one step further? If so, then this one hour presentation is for you! During this engaging session participants will learn about strategies and equipment that can be used in a successful power wheelchair driver's education program.

#### Learning Objectives

- List the key components of a power mobility training program.
- Identify at least three adaptations that can be made to power wheelchair input devices to improve the success rate of a client's driving ability.
- List five activities and/or strategies to have as a part of the resources used to assist clients with learning to become a safe and efficient power wheelchair user.

D5 | INTERMEDIATE | MANUFACTURER

### Custom Seating Solutions: Exploring the Therapist - Orthotist Relationship and how Complimentary this can be when Creating Seating Solutions for the Client with More Complex Needs

*Sharon Pratt, Tedi Brash*

Therapist and Orthotist, is it a match made in heaven? What happens when the two schools of thought come together in the design process? The answer is an innovative model in which functional, anatomical, physiological and biomechanical principles are combined to create unique custom seating solutions.

#### Learning Objectives

- Acquaint participants with the model of Therapist - Orthotist partnerships in custom seating.
- Define the critical success factors for each profession - what is that they are trying to achieve with a custom seat.
- Introduce a framework for a custom seating approach that marries anatomical and biomechanical principles to maximize outcomes.

D6 | INTERMEDIATE

### How to Optimize your Continuing Education: A Necessary Benefit to Improve your Practice

*Laura Rice, Mary Goldberg*

This course will provide information on maximizing continuing education dollars and time. Participants will be educated on course selection based on their learning objectives and style. The pros and cons and how to use different education methods to master new technologies and complex situations will be discussed.

#### Learning Objectives

- Describe three characteristics to consider when selecting continuing education courses.
- Describe three ways to use independent education methods and resources to master new technology and complex clinical problems.
- Describe three steps for creating your own CE course.

# Main Symposium

## Friday, March 7, 2014

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08:00 Registration Continental Breakfast & Posters

08:30 Instructional Session E

E1 | INTERMEDIATE

### Crossing the Research and Clinical Practice Divide

*Bonita Sawatzky, Ian Denison*

In addition to a busy practice, clinicians often desire to stay current with literature as well as do clinically-based research. This is difficult to do without the knowledge and expertise of a seasoned researcher. This presentation shows how to bridge the gap between the two experts to generate high quality, publishable research.

#### Learning Objectives

- Identify key strategies for how to link with a researcher
  - Identify realistic expectations that a clinician and researcher should have to do research as a team.
  - Identify the key components that make up a clinical research project.
- 

E2 | ADVANCED

### Adaptive Seating - A Clinical Decision Process: Is This the Best We Can Do?

*Efrat Shenhod, Ginny Paleg*

A literature review resulted in clinical decision guidelines for adaptive seating for children and adult, and its effect on body structure, function, activity and participation will be presented. We will discuss and compare off the shelf solutions vs. customized and newly developed solutions including parent-guided solutions for their children. We will analyze case studies and discuss the available solutions, custom made solutions and a novel solutions for children and adults. We will also present parent - guided solutions for the everyday struggle with positioning and function, and discuss parents satisfaction from the use of assistive technology. participants will encourage to present their own cases and we will discuss the solutions for complex seating in the milieu.

#### Learning Objectives

- Review the current literature on adaptive seating for children and adults with cerebral palsy.
  - Review and discuss the evidence basis of the effect of seating components on body structure and function, activity and participation.
  - Present and analyze case studies which display off the shelf seating, custom made and novel seating system solutions.
- 

E3 | INTERMEDIATE | MANUFACTURER

### "Pimp My Ride" Can Wheelchairs be Functional and Look Good Too?

*Michelle B Harvey, Kathryn Fisher*

This presentation will utilize case studies to illustrate the range and spectrum of customization with paediatric and adult clients. We will highlight the integration of fit, form and function. Customizing a piece of equipment should be beneficial and fulfilling for both the therapist and the client.

#### Learning Objectives

- Be introduced to a broad spectrum of equipment and material that than can be utilized for customization.
  - Utilize the PEO model as a reference when completing the prescription, medical justification and delivery process.
  - Discuss and evaluate the integration of customization opportunities within their own practice.
- 

09:30 Room Change

E4 | BEGINNER | MANUFACTURER

### Say What?! Myth Busters in Seating and Mobility

*Stefanie Laurence, Sheila Buck*

Effective seating and mobility prescriptions are a combination of art and science. Dissemination of the science not only takes time to be integrated, but is sometimes absent in the clinical reasoning. The result is that solutions that are meant to solve problems are applied with good intentions, but with disastrous results. This session will take a look at commonly held beliefs in seating and mobility, apply science to dispel the myths and provide solid solutions to address the clients seating and mobility needs, based on current clinical and scientific theory.

#### Learning Objectives

- Identify at least five beliefs that are myths related to seating and mobility.
  - Describe the mechanical reasons why the issues are myths.
  - Participant will be able to discuss possible solutions to resolve the identified issues.
- 

E5 | BEGINNER

### The Pelvic Floor Muscles and Wheelchair Seating: Why Should We Care?

*Carina Siracusa Majzun*

This session will explore the importance of pelvic floor muscles and their application to wheelchair seating. Participants will learn the basic anatomy of the pelvic floor as well as their role in bowel/bladder function, posture control, and breathing. Participants will come away with basic seating tricks to enhance the function of these muscles while enhancing postural and physiologic control.

#### Learning Objectives

- Identify how the pelvic floor muscles function in relation to posture and bowel/bladder control.
  - Identify how wheelchair seating can enhance and encourage normal functioning of the pelvic floor muscles.
- 

E6 | ADVANCED

### Biomechanics and Its Application to Seating

*Joel M Bach, Kelly Waugh*

In this workshop, we will take a biomechanical approach to the analysis of common postural deviations such as posterior pelvic tilt, kyphosis, pelvic obliquity, scoliosis, and abnormal postures of the head and neck.

#### Learning Objectives

- Understand basic biomechanical principles and their general application in seating.
- Explain using biomechanical concepts why a 'forward head posture' is so difficult to control in seating.
- Describe the use of three point control in the management of a scoliotic sitting posture.



# Main Symposium

## Friday, March 7, 2014 (continued)

09:40 Instructional Session F

F1 | INTERMEDIATE

### Adaptive Sports & Recreation: AT Options & Applications

*Kendra Betz*

Individuals who use assistive technology in home, school, or work environments will typically require adaptive equipment for sports and recreational pursuits as well. This session highlights the significant roles that AT professionals play in sports and recreation applications including athlete assessment, equipment prescription and modification, seating interventions, and comprehensive client education and skills training.

#### Learning Objectives

- List five professional skills applicable to sports technologies.
- Understand six AT options to support individuals with disabilities in sport, recreation and leisure pursuits.
- Identify three funding sources for sports and recreation adaptive equipment.

F2 | INTERMEDIATE

### Going from A-C: Video Case Study Analysis Applying Clinical Reasoning Skills to Wheeled Seating and Mobility Evaluations

*Lois Brown*

This session, utilizing "active learning theory" will utilize a comprehensive video case study of a complex rehab client with interactive audience participation throughout the session. Attendees will apply critical thinking skills in a step by step case analysis to develop skills they can apply directly in their wheeled seating and mobility evaluations.

#### Learning Objectives

- State two examples of how the active learning model can be applied to the clinic.
- Name three characteristics that have been identified in an exemplary clinical instructor.
- Name the level of Blooms Taxonomy where critical thinking skills develop.
- Name three expert skill sets that were identified as being a part of the Wheeled Seating and Mobility exam.
- State one clinical example of how the concept of algorithms applies to wheeled seating and mobility evaluations.

F3 | BEGINNER | MANUFACTURER

### The Power of Programming!

*Sheilagh Sherman, Ken Kalinowski*

Power wheelchairs should be programmed for the person, the environment, and the occupation. This interactive workshop provides an overview of programming possibilities available in expandable and non-expandable electronics and how changes affect the drive ability of power wheelchairs. Videos will be shown that illustrate the before/after effects.

#### Learning Objectives

- Describe three reasons why power wheelchair programming is important.
- Explain five adjustments that can be made to the programming of a power wheelchair.
- Apply the knowledge learned to improve programming and drive ability of power wheelchairs for various clinical scenarios.

F4 | INTERMEDIATE

### The 1/4 Inch Quandary: Minor Adjustments Can Make a Major Difference

*Robin Skolsky, Chris Maurer*

This course will provide attendees visual comparisons on how even small adjustments can make big differences in a wheelchair user's posture, function, and comfort. We will compare "off the shelf" vs custom components and creative ways to use items that are readily available. Before and after photos will demonstrate significant changes achieved.

#### Learning Objectives

- Identify ways to improve end users access to wheels for enhanced propulsion.
- Identify adjustments in a manual wheelchair that can enhance posture and function.
- Understand and be able to explain the benefits of adjustments and how they can improve their client's overall experience.
- Learn tools to help family members/caregivers understand the impact of proper positioning in a wheelchair.

F5 | BEGINNER | MANUFACTURER

### Who's Afraid of Secondary Supports? Sensible Uses of Seating Components

*Brenlee Mogul-Rotman, Bart Van der Heyden*

This presentation will outline the basics of seating components commonly considered for optimal positioning and safety within a mobility device. The process of assessment of primary and secondary positioning devices will be reviewed within the full seating assessment. Using an evidence-based approach, cases studies will be discussed on how to utilise seating components to best position and stabilise our clients. How do we continue to meet the needs of our clients while adhering to existing policies and rules? The issue of why policies are being developed outlining our recommended seating components will be discussed.

#### Learning Objectives

- List three to four different types of secondary support devices.
- List three ways to minimize use of what is considered a restraint.
- List three ways to justify use of primary and secondary support devices.

10:40 Break

Refreshments & Poster Viewing

11:10 Opening Remarks

*Catherine Ellens*

11:20 Plenary

Motor Learning Strategies and Power Mobility Practice: Do They Make a Difference on Development and Function of Children and Adults with Developmental Disabilities?

*Maria Jones*

11:45 Plenary

Hope, Self-Worth and Inner Peace

*Al Blesch*

12:05 Plenary

ISS 2014: to Infinity and Beyond. . .

*Geoff Bardsley*

12:35 Closing Remarks & Evaluation

*Dave Cooper & Maureen Story*

12:55 Adjourn

# 30th Seating Symposium Posters & Exhibitors

## Posters

Poster presenters will give 1-minute presentations on their posters on **Wednesday, March 5 at 10:25 - 10:40** in the plenary room. They will be available to answer questions during the poster session on **Thursday, March 6 at 12:00 - 13:00**. Posters will be displayed for viewing on all three days of the symposium.

TKEN The Kids Equipment Network

[Timothy Caruso](#), [Jessica Presperin Pedersen](#)

The Effect of Early Movement on the Development of Young Children with Mobility Impairments

[Nava Gelkop](#), [Debby Elnatan](#)

Selecting Adapted Power Controls for Electric Power Wheelchairs

[Lucie Germain](#)

Development of Pressure-Relieving Movements Management System for Pressure Ulcer Prevention

[Takashi Handa](#)

The Effect of a Motion Device, for Example the Innowalk, on the Motor System of Children with Bilateral Spastic Tetraparesis GMFCS IV/V, as an Integral Part of Multitherapy Conductive Education

[Jana Kaeferle](#)

Camp Gizmo - Unique Teaming Style

[Alison Kreger](#), [Wendy Harris-Altizer](#)

Experience of Managing and Running of a Wheelchair Bank Service over 17 years

[Hongyin Lau](#), [Sandra LF Shum](#), [Barbara Chan](#), [Eric Tam](#)

The Design of Low Cost Tilt-in-Space Chair

[Hongyin Lau](#), [Sandra LF Shum](#), [Barbara Chan](#), [Eric Tam](#)

How to Select and fit the Right Chair in Vocational Rehabilitation

[Karen Lyng](#)

Positioning for Hip Health: A Clinical Resource

[Lynore McLean](#), [Sherylin Gasior](#)

Smart Apartment: Advancing Life, Inspiring Independence

[David Miller](#)

Seating for Infants and Young Children with Cerebral Palsy: Transferring Research Evidence into Best Practice Recommendations

[Veronica Naing](#), [Marnie Eastman](#), [Maureen Story](#)

Water-Proofing Foams Using Commercially Available Sealants in Custom Seating Applications: A Comparative Study of Changes in Foam Quality Using a Pressure Sensor

[Irene Schmid](#)

NEWSFLASH: Allen Wrenches are Available at Your Nearby Hardware Store!

[Douglas J Whitman](#)

## Exhibitors

The 30<sup>th</sup> International Seating Symposium includes an extensive exhibit hall, which will be open on Tuesday, March 4 from 13:15 - 19:30 (viewing is complimentary for all on this day), Wednesday, March 5 & Thursday, March 6, 2014. All exhibit booths are sold out.

- Accessible Designs, Inc.
- Activeaid Inc.
- Adaptive Engineering Lab
- Adaptive Switch Laboratories, Inc.
- Amysystems
- ArjoHuntleigh Canada Inc.
- Beds By George
- BlueSky Designs, Inc.
- Bodypoint, Inc.
- Broda Seating
- Colours Wheelchair
- Columbia Medical
- Comfort Company
- Convaid
- Daher Manufacturing
- Dane Technologies, Inc./LEVO USA
- Drive Medical Design & Manufacturing
- Dynamic Health Care Solutions
- Dynamic Systems
- EasyStand (Altimate Medical, Inc.)
- Falcon Rehab
- Freedom Designs
- Future Mobility Healthcare
- Handicare
- Health Design & Technology Institute (Coventry University)
- Icon Wheelchairs
- Innovation In Motion
- Invacare Corporation
- James Leckey Designs
- Ki Mobility
- MAX Mobility
- MK Battery
- Mobility Management
- Motion Concepts
- Motion Composites
- National Seating & Mobility
- Nuprodx, Inc.
- Otto Bock Healthcare
- Pacific Rehab
- Panthera
- Parsons ADL Inc
- Patientech/Vista Medical
- Patterson Medical
- PDG: Product Design Group
- Permobil, Inc.
- Personal Aide Woodcrafts Inc.
- Physipro
- Pindot
- Prime Engineering
- PRM, Inc.
- Pro Medicare s.r.l.
- Quantum Rehab, A Division of Pride Mobility
- R & M Health Care Inc.
- RAZ Design Inc.
- Richardson Products, Inc.
- Ride Designs
- Rifton Equipment
- ROHO, Inc.
- Rupiani
- Seating Dynamics
- SleepSafe Beds, LLC
- Snug Seat
- Star Cushion Products, Inc.
- Stealth Products
- Sunrise Medical
- Supracor, Inc.
- Switch It
- Symmetric Designs
- Tekscan, Inc.
- Therafin Corporation
- Thomashilfen
- TiLite
- Varilite
- XSENSOR Technology Corporation

**For detailed information and an exhibitor floor plan, visit [interprofessional.ubc.ca/ISS2014](http://interprofessional.ubc.ca/ISS2014)**



## 30th Seating Symposium Presenters

**Michael Allen**, Executive Director, UCP Wheels for Humanity, North Hollywood, CA

**Tim Adlam**, PhD, Lead Mechanical Engineer, Bath Institute of Medical Engineering, Wolfson Centre, Bath, UK

**Eli Anselmi**, Product & Education Specialist, Comvaid, Torrance, CA

**Elaine Antoniuk**, BScPT, Physiotherapist, Sunny Hill, Vancouver, BC

**Joel M Bach**, Ph.D., Associate Professor, Colorado School of Mines, Golden, CO

**Karen Missy Ball**, MT, PT, ATP, Freedom Designs Inc & PhysioBall Therapy LLC, Metairie, LA

**Geoff Bardsley**, NHS Tayside, Ninewells Hospital, Dundee, Scotland

**Theresa F. Berner**, MOT, Occupational Therapist, The Ohio State University Wexner Medical Center, Columbus, OH

**Kendra Betz**, MSPT, ATP, Physical Therapist, Veterans Health Administration, Littleton, CO

**Amy Bjornson**, BA, BS, MPT, ATP, Clinical Education Specialist, Sunrise Medical Australia, Huntingwood, NSW, Australia

**Al Blesch** BA, Bed, Project Director and Master Facilitator with the Pacific Institute

**Jaimie F Borisoff**, PhD, Research Director, British Columbia Institute of Technology, Burnaby, BC

**Steven Boucher**, BS, Occupational Therapist, Sunrise Medical, Boulder, CO

**Tedi Brash**, MSt, BSc, CO(c), Certified Orthotist, National Seating Specialist, Ottobock Canada, Burlington, ON

**Lois Brown**, MPT, ATP/SMS, Director of Clinical Operations and Education, National Seating and Mobility, Wayne, PA

**Sheila Buck**, B.Sc.(OT), Reg. (Ont.), Occupational Therapist, Therapy NOW! Inc., Milton, ON

**Rosaria Eugenia Caforio**, Orthopedist Technician, Pro Medicare Srl, Mesagne, BR, Italy

**Dave Calver**, Health Services for Community Living, North Island, Vancouver Island Health Authority, Courtenay, BC

**Timothy Caruso**, MBA, PT, Physical Therapy, Shriners Hospital/TKEN, Addison, IL

**Barbara C M Chan**, M.Sc, Occupational Therapist, Occupational Therapy Department, Prince of Wales Hospital, Hong Kong, China

**Ophelia HL Chan**, M. Sc., Physiotherapist, Physiotherapy Department, Prince of Wales Hospital, Hong Kong, China

**Jo-Anne M Chisholm**, M.Sc., Occupational Therapist, Access Community Therapist Ltd., Vancouver, BC

**Elizabeth Cole**, MSPT, AP, Director of Clinical Rehab Services, US Rehab, Derry, NH

**Diane M Collins**, PhD, Assistant Professor, OT, University of Texas Medical Branch, Galveston, Texas

**Dave Cooper (Co-Chair)**, MSc. (Kinesiology) Rehabilitation Technologist, Sunny Hill Health Centre for Children, Vancouver, BC

**Barbara Crane**, PT, PhD, ATP, Physical Therapy, Department of Rehab Sciences, University of Hartford, West Hartford, CT

**Hannah Victoria Dalton**, BEng, MSc, Pre-registration Clinical Scientist, Bath Institute of Medical Engineering, Royal United Hospital, Bath and North East Somerset, UK

**Ian Denison**, PT, Physiotherapist, GF Strong Rehab, Vancouver Coastal Health, Vancouver, BC

**Carmen P. DiGiovine**, PhD, ATP/SMS, RET, Assistant Professor, Rehabilitation Engineer, The Ohio State University, Columbus, OH

**Angela Dillbeck**, OTD, Occupational Therapy, Craig Hospital, Englewood, CO

**Jay Doherty**, B.S, Occupational Therapy, Occupational Therapists, Clinical Education Mgr, Pride Mobility Products Corp, Laconia, NH

**Marnie Eastman**, Physiotherapist, Sunny Hill Health Centre for Children, Vancouver, BC

**Catherine Ellens**, BScOT, Occupational Therapist, Therapy Department, Sunny Hill Health Centre for Children, Vancouver, BC

**Debby Elnatan**, B.Mus., PD, Researcher, Lecturer, Muscian, Jerusalem, Israel

**Debbie Field**, M.H.Sc.O.T., Occupational Therapy, Sunny Hill Health Centre for Children, Vancouver, BC

**Simon Fielden**, Director, Health Design & Technology Institute, Coventry University, Coventry, UK

**Kathryn Fisher**, Occupational Therapy, Seating and Mobility Specialist, Shoppers HomeHealthCare, Vancouver, BC

**Ciara Fitzsimons**, MSc, Speech & Language Therapist, Central Remedial Clinic, Dublin, Ireland

**Tamara J Franks**, MA, Child Passenger Safety Coordinator, Randall Children's Hospital at Legacy Emanuel, Portland, OR

**Toru Furui**, PhD, Professor, PT, Osaka Kawasaki Rehabilitation University, Osaka, Japan

**Masayo Furui**, Organization Founder, Society for Health and Life of People with Cerebral Palsy, Osaka, Japan

**James (Cole) Galloway**, PT, PhD, Director, Infant Behavior Lab; Professor, Department of Physical Therapy, University of Delaware, Newark, DE

**Sherilyn Gasior**, MSc OT, Occupational Therapist, Sunny Hill Health Centre for Children, Vancouver, BC

**Amit Gefen**, PhD, Biomedical Engineer, Tel Aviv University, Ramat Aviv Campus, Tel Aviv

**Nava Gelkop**, PT, MSc, Head of Health Professional Team, Keren-Or Centre, Jerusalem, Israel

**Lucie Germain**, BSc, Occupational Therapist, Constance-Lethbridge Rehabilitation Center, Montréal, QC

**Ed Giesbrecht**, PhD (Cand.), Professor, University of Manitoba, Winnipeg, MB

**Mary Goldberg**, Med, Education & Outreach Coordinator, University of Pittsburgh, Pittsburgh, PA

**Dianne Goodwin**, MEBME, ATP, Rehab Engineer/Entrepreneur, BlueSky Designs, Inc., Minneapolis, MN

**Takashi Handa**, PhD, Engineer, Saitama Industrial Technology Center, Kawaguchi-City, Saitama-Prefecture, Japan

**Karen D. Hardwick**, Ph.D., OTR, FAOTA, Coordinator of Specialized Therapies, Department of Aging and Disabilities, Texas Department of Aging and Disabilities, Austin, TX

**Wendy Harris-Altizer**, PT, APT, Physical Therapist, Milestones Physical Therapy, Hurricane, WV

**Michelle B Harvey**, Occupational Therapy Hons, Private Occupational Therapist, Shoppers HomeHealthCare, Vancouver, BC

**Nathaniel Hers**, B.Kin., Student, University of British Columbia, Vancouver, BC

**Sue Johnson**, MA, Director of Education, Columbia Medical, Santa Fe Springs, CA

**Maria Jones**, PT, PhD, Associate Professor, Tolbert Center for Developmental Disabilities and Autism, Department of Rehabilitation Sciences, University of Oklahoma Health Sciences Center, Norman, OK

## 30th Seating Symposium Presenters

**Jana Kaeferle**, PT, Therapie Institute Keil Vienna/Austria, Made for Movement Norway Austria, Vienna, Austria

**Ken Kalinowski**, Senior Service Advisor/Technical Educator, Sunrise Medical Canada, Concord, ON

**Angie Kiger**, M.Ed., Clinical Educator, Sunrise Medical, US, Boulder, CO

**Takashi Kinose**, M.Sc., occupational therapist, Tokyo, Japan

**Kay Koch**, Bs.OT, Occupational Therapist, Mobility Designs, Atlanta, GA

**Alison Kreger**, MSPT, DPT, Physical Therapy, Department of Physical Therapy, Wheeling Jesuit University, Wheeling, WV

**Ajax HY Lau**, M. Phil, Prosthetist-Orthotist, Prosthetic & Orthotic Department, Prince of Wales Hospital, Hong Kong, China

**Stefanie Laurence**, B.Sc.OT, OT Reg.(Ont.), Occupational Therapist, Motion Specialties, Toronto, ON

**Roslyn Livingstone**, MSc(RS), OT, Occupational Therapist, Sunny Hill Health Centre for Children, Vancouver, BC

**Karen Lyng**, OT, MRSc, Senior Ergonomic Adviser, Aalborg, Denmark

**Megan K MacGillivray**, MSc, PhD student, University of British Columbia, Vancouver, BC

**Johanne Mattie**, MASc, Research Associate, Technology and Product Evaluation Group, British Columbia Institute of Technology, Burnaby, BC

**Chris Maurer**, MPT, APT, Physical Therapist, Shepherd Center, Atlanta, GA

**Lynore McLean**, Physiotherapist, Sunny Hill Health Centre for Children, Vancouver, BC

**David Miller**, OTR/L, ATP, Rehabilitation Technologist, Helen Hayes Hospital Center for Rehabilitation Technology, West Haverstraw, NY

**William C Miller**, PhD, FCAOT, Professor & Associate Dean Health Professions, Faculty of Medicine, Dept of Occupational Science & Occupational Therapy, PI/CanWheel Research Team, University of British Columbia, Vancouver, BC

**Jean Minkel**, MSPT, Physical Therapist, Minkel Consulting, New Windsor, NY

**Brenlee Mogul-Rotman**, B.Sc.OT, ATP/SMS, Occupational Therapist, Toward Independence, Richmond Hill, ON

**Jill Monger**, MS, PT, Physical Therapist, Medical University of South Carolina Children's Therapy, North Charleston, SC

**Katherine Moros**, BHSc(OT), OT Reg. (Ont.), Occupational Therapist, Hamilton Health Sciences, St. Peter's Hospital, Hamilton, ON

**Ben Mortenson**, PhD, OT, Assistant Professor, Department of Occupational Science and Occupational Therapy, University of British Columbia, Vancouver, BC

**Jun Murakami**, President and CEO, Association for Better Lives of Impaired Children and Adults, Tokyo, Japan

**Carmen Murray**, MSc(OT), OT Reg. (Ont.), Occupational Therapist, Hamilton Health Sciences, St. Peter's Hospital, Hamilton, ON

**Veronica Naing**, MScPT, Physiotherapist, Sunny Hill, Vancouver, BC

**Linda Norton**, OT Reg.(ONT), MScCH, Occupational Therapy, Shoppers Home Health Care, Toronto, ON

**Beth Ott**, MSc, BScPT, Physiotherapist, Sunny Hill Health Centre for Children, Vancouver, BC

**Terri L. Oxender**, BS, Occupational Therapist, ATP, Tadpole Adaptive, Goshen, KY

**Ginny Paleg**, DScPT, Physical Therapist, Montgomery County Infant and Toddlers Program, Silver Spring, MD

**Richard Pasillas**, Complex Seating Specialist, President of CUSHMAKER.com, Santa Fe Springs, CA

**Caroline Portoghese**, OTR/L, ATP/SMS, Occupational Therapist, Fairview Rehab Services, St. Paul, MN

**Sharon Pratt**, PT, Seating Solutions, LLC, Longmont, CO

**Jessica Presperin Pedersen**, MBA, OTR/L, OTR/L, ATP, Occupational Therapist, Rehabilitation Institute of Chicago Center for Rehabilitation Research, Franklin Park, IL

**Laura Rice**, PhD, MPT, ATP, Visiting Assistant Professor, University of Illinois, Champaign, IL

**Tina Roesler**, MSPT, Physical Therapist, TiLite, Kennewick, WA

**Lauren Rosen**, PT, MS, MSMS, ATP/SMS, Physical Therapist, St. Joseph's Children's Hospital of Tampa, Tampa, FL

**Mahsa Sadeghi**, MD, Student, University of British Columbia, Vancouver, BC

**Bonita Sawatzky**, Associate Professor, Orthopaedics, University of British Columbia, Vancouver, BC

**Richard M Schein**, PhD, MPH, Research Health Scientist, University of Pittsburgh, Pittsburgh, PA

**Mark R Schmeler**, PhD, OTR/L, ATP, Assistant Professor, University of Pittsburgh, Pittsburgh, PA

**Irene Schmid**, BA, Industrial Design, MA Economics, Seating Technologist, Sunny Hill Health Centre for Children, Vancouver, BC

**Rachael E Schmidt**, BOccThy; MHSc(OT); PhDstd, Occupational Therapist, Deakin University, Geelong, Victoria, Australia

**Mike Seidel**, ATP, CRTS, Assistive Technology Professional, NuMotion, Kansas City, MO

**Efrat Shenhod**, BOT, M.Sc., Occupational Therapist, Sheba Medical Center, Moddiin, Israel

**Sheilagh Sherman**, BA, BHScOT, Occupational Therapist, Sunrise Medical Canada, Concord, ON

**Sandra LF Shum**, RPTHK, Physiotherapist, Prince of Wales Hospital, Hong Kong, China

**Carina Siracusa Majzun**, PT, DPT, Physical Therapist, Genesis Outpatient Rehabilitation, Zanesville, OH

**Robin Skolsky**, MSPT, Physical Therapist, Shepherd Center, Atlanta, GA

**Maureen Story (Co-Chair)**, BSR (PT/OT) Sunny Hill Health Centre for Children, Vancouver, BC

**Eric WC Tam**, PhD, Biomedical and Rehabilitation Engineering, BME, The Hong Kong Polytechnic University,, Hong Kong, China

**Susan J. Taylor**, BSOT, Occupational Therapist, Rehabilitation Institute of Chicago, Chicago, IL

**Stephen Tredwell**, MD, FRCSC, MA, Professor Emeritus, Department of Orthopaedics, University of British Columbia, Vancouver, BC

**Sachie Uyama**, PT, Toyohashi Sozo University, Toyohashi-City, Aichi-Prefecture, Japan

**Bart Van der Heyden**, PT, Clinical Consultant, Houtstraat 74, Destelbergen, Belgium

**Amber Ward**, MS, OTR/L, BCPR, ATP, Occupational Therapist, Carolinas Healthcare System, Charlotte, NC

**Kelly Waugh**, PT, MAPT, ATP, Physical Therapist, Assistive Technology Partners, University of Colorado, Denver, CO

**Joy Wee**, MD, Associate Professor, Queen's University, Kingston, ON

**Doug Whitman**, OTR/L, ATP, Occupational Therapist, United Cerebral Palsy, Bronx, NY

**Joanne Yip**, BSR, Occupational Therapist, Access Community Therapist Ltd., Vancouver, BC



Please write in block letters.

One registration form per person. Please photocopy if more are needed.

DR.  MR.  MRS.  MS.

\_\_\_\_\_  
Last Name First Name Initial

\_\_\_\_\_  
Organization Name/Mailing Address

\_\_\_\_\_  
Mailing Address

\_\_\_\_\_  
City Prov/State Postal Code

( ) ( )

\_\_\_\_\_  
Daytime Telephone Number / Local Fax Number

\_\_\_\_\_  
E-mail Address

\_\_\_\_\_  
Dietary Restrictions (for lunches)

Affiliation/Profession (select only one)

- Consumer  Engineer  Nurse  
 Occupational Therapist  Physician  Equipment Supplier  
 Physiotherapist  Technician  Student  
 Other: \_\_\_\_\_ (please specify)

## Pre-symposium Sessions: March 4

Pick one full day session (PS1) OR one AM (PS2/3/4/5) and/or one PM (PS6/7/8/9)

- PS1 (full day)  
 PS2 (AM half day)  PS6 (PM half day)  
 PS3 (AM half day)  PS7 (PM half day)  
 PS4 (AM half day)  PS8 (PM half day)  
 PS5 (AM half day)  PS9 (PM half day)

## Instructional Sessions A-F

Please refer to the program for session descriptions. You must enter your two choices or you will not be registered. Example shown below in grey.

	1ST CHOICE	2ND CHOICE
Example:	A1	A5
Session A (March 5):	_____	_____
Session B (March 5):	_____	_____
Session C (March 6):	_____	_____
Session D (March 6):	_____	_____
Session E (March 7):	_____	_____
Session F (March 7):	_____	_____

## Registration Fees

All values are in CAD and are subject to 5% GST. Registration prior to **February 10** is recommended to ensure you receive your course selections. The Evening at the Aquarium is **not** included in the symposium fee.

### Pre-Symposium Sessions: Tuesday, March 4

These are an additional cost to the Symposium fee

**Attending: Pre-Symposium Only Pre & Main Symposium**

If you are attending one full-day or two half-day sessions, please use this fee structure:

**PS1 (Full Day)**

OR  \$260 (\$247.62+5%GST)  \$220 (\$209.52+5%GST)

**PS2/3/4/5 & PS6/7/8/9**

If you are attending just one half-day session, please use this fee structure:

**PS2/3/4/5/6/7/8/9**  \$175 (\$166.66+5%GST)  \$135 (\$128.57+5%GST)

Pre-symposium Subtotal: \$ \_\_\_\_\_

### Main Symposium: March 5 - 7

Early-bird rate is prior to **Monday, January 13, 2014.**

Pre-symposium workshops are an additional cost; please see above.

**Entire 2 and a half-day Symposium**

\$549 Early Bird (\$522.86+5%GST)  \$599 Regular (\$570.47+5%GST)

**Wednesday, March 5 only**

\$260 Early Bird (\$247.62+5%GST)  \$275 Regular (\$261.90+5%GST)

**Thursday, March 6 only**

\$260 Early Bird (\$247.62+5%GST)  \$275 Regular (\$261.90+5%GST)

**Friday, March 7 only**

\$140 Early Bird (\$133.33+5%GST)  \$160 Regular (\$152.38+5%GST)

### Full Time Student Rate (Full Program)

Full Program (before January 13, 2014)  \$280 (\$266.66+5%GST)

\*Please note that the full program does NOT include the pre-symposium workshops. A letter from your supervisor/department head stating that you are a full time student along with a valid student photo ID must be sent with student registrations. Please fax a copy if you register online.

### \*30<sup>th</sup> Anniversary Celebration: Evening at the Aquarium

This event (19:00 on Thursday, March 6, 2014) is not included in the symposium fee. Please register early as space is limited. See page 10 for more details.  
 \$30 before/on Feb. 27 (\$28.57+5%GST)  \$40 after Feb. 27 (\$38.10+5%GST)

Evening at the Aquarium Subtotal: \$ \_\_\_\_\_

### Symposium Syllabus (Print Copy)

The syllabus will be available online a week prior to the Symposium. If you wish to obtain a hard copy in addition to the digital copy, there is a \$30 charge:

\$30 (\$28.57+5%GST)

Syllabus Print Copy Subtotal: \$ \_\_\_\_\_

**Total: \$ \_\_\_\_\_**

## Method of Payment

### Payment by Credit Card

- Complete the full registration online at [interprofessional.ubc.ca/ISS2014](http://interprofessional.ubc.ca/ISS2014) with your Visa or MasterCard
- Fax the registration form to 1-604-822-4835 and indicate that you would like to pay with Visa or MasterCard. We will send you the secure on-line link to enter your credit card information. **PLEASE DO NOT FAX CREDIT CARD INFORMATION**
- Register and pay over the phone: Local/International: 1-604-827-3112 or toll free within Canada/USA: 1-855-827-3112 (VISA or MasterCard)

### Payment by Cheque

Please make your cheque payable to the University of British Columbia (UBC) and send it along with complete registration form to:  
 Interprofessional Continuing Education, UBC  
 Rm. 105 – 2194 Health Sciences Mall, Vancouver, BC, V6T 1Z3

### Alternative Payment Methods

Mail or fax complete registration form along with one of the following:

- Signed purchase order (PO);
- Letter of Authorization (LOA) from the manager on the organization's letterhead stating that they will be paying the registration fees. The letter should include the amount of registration fees, name and contact information of the manager;
- Signed cheque requisition form (ChReq)

#### Please Indicate Method of Payment

- Credit Card:** Please e-mail me a secure on-line link to enter my credit card number
- Cheque:** Payment is enclosed with mailed registration form
- PO/LOA/ChReq:** Purchase order/letter of authorization/cheque requisition form is enclosed with faxed/mailed registration form