



Knowledge that will change your world

**UAB Center for Disability Health
and Rehabilitation Science**

2nd Annual Symposium

***“Optimizing Health, Function and Participation in
Children and Adults with Disabilities”***

Friday, May 18th, 2018

8:30 am—4:15 pm

DoubleTree Hotel



David Brown, PT, PhD, Co-Director

James Rimmer, PhD, Co-Director

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AGENDA

- 8:30 – 9:00 am **Registration (light breakfast provided)**
- 9:00 – 9:15 am **Welcome and Introduction**
Harold Jones, Dean of UAB School of Health Professions
Jeff Underwood, President & CEO of Lakeshore Foundation
- 9:30 – 10:30 am **Keynote I**
- Diane Damiano, PT, PhD**
Chief of Functional & Applied, Biomechanics Section, NIH Clinical Center, Bethesda, MD
“What’s New in the World of Neurorehabilitation Research for Children with Cerebral Palsy?”
- 10:30 – 11:15 am **Gary Cutter, PhD**
Professor, UAB Department of Biostatistics
“How Bad is Rehab Science?”
- 11:15 am – Noon Poster presentations and judging (coffee/tea)
- Noon – 1:00 pm Lunch and Learn (Lunch provided)
- Alan Eberhardt, PhD**
Professor; Associate Chair, UAB Department of Biomedical Engineering
“Translational Rehabilitation and Assistive Devices (TREAD) – Activities in the UAB School of Engineering”
- 1:00 – 2:00 p.m. **Keynote II**
- Ken Ottenbacher, OT, PhD**
Professor & Director, Rehabilitation Sciences; Professor, Internal Medicine; Professor, Occupational Therapy
University of Texas Medical Branch, Galveston, TX
“The Changing World of Post-Acute Care: Reform and Readmission”
- 2:00 – 2:45 p.m. **Tina Kempin Reuter, PhD**
Director, UAB Institute for Human Rights
“Embracing the Disability Rights Paradigm: The Social Model of Disability, Inclusion, and Access for All”
- 2:45 – 3:00 p.m. Break (refreshments provided)

3:00 – 4:00 p.m.

Keynote III

Pamela Duncan, PT, PhD

Professor, Neurology, Gerontology and Geriatric Medicine
Wake Forest School of Medicine

“Pragmatic Trials: Collaboration, Implementation and Innovation”

4:00 – 4:15 pm

Presentation awards and closing remarks

Poster Presentations (listed by board #)

1. **“Braking to speed up? Exploring the counterintuitive mechanics of walking faster in old adults, from the ground up”** - Daniel Kuhman; Christopher Hurt
2. **“The Effects of the AllCore360 Isometric Exercise on Postural Control in Wheelchair Basketball Athletes: A Pilot Study”** - Hunter B. Alvis; Melissa Pangelinan
3. **“Knowledge of the Rules and Regulations of Driving a Vehicle in Drivers With and Without ADHD”** - Maria T. Lechtreck; Despina Stavrinos
4. **“Vestibular and Oculomotor Function in Children with Cerebral Palsy”** - Anwar Almutairi; Jennifer Christy; Cochrane, Graham; Busettoni, Claudio
5. **“The Development of Virtual Reality Environments to Improve Movement Quality and Quantity in Individuals with Chronic Low Back Pain”** - Rebecca Hennessy; David A. Brown
6. **“Does Balance Confidence Relate to the Maintenance of Dynamic Stability Over a Range of Walking Speeds?”** - Jutaluk Kongsuk; David A. Brown; Christopher P. Hurt
7. **“Assessment of Diabetes and Hypertension in Adults with Spinal Cord Injury”** - Yumi Kim; Tapan Mehta
8. **“The design and efficacy of video models for adapted tennis instruction in adults with disabilities”** - Loriane Favoretto; Pangilinan M. Melissa
9. **“Percent total body fat, independent of age, height, and muscle mass, is negatively associated with muscle strength and jump test performance in older women”** – Bethany Moore; Harshvardhan Singh; Debra A. Bembem; Zhaojing Chen; Kenneth G. Saag; Donald Lein; Cynthia J. Brown; Gary R. Hunter,
10. **“Racial/Ethnic Differences in Obesity in Individuals with Spinal Cord Injury: The Impact of Disadvantaged Neighborhood”** - Huacong Wen; Yuying Chen; Amanda L. Botticello; Sejong Bae
11. **“The Effects of the AllCore360 Isometric Exercise on Postural Control in Wheelchair Basketball Athletes: A Pilot Study”** - Hunter B. Alvis; Melissa Pangelinan

12. **“GoHealthySCI: The Development of a Weight Management Program for People with Spinal Cord Injury”** - Stephanie L. Silveira; Rosemary B. Hughes; Margaret A. Nosek; Heather B. Taylor; Tracey A. Ledoux; Lisa Wenzel; Lauren Diaz; Susan Robinson-Whelen; The GoHealthySCI Consortium
13. **“Does practicing manual wheelchair skills with the expectation of teaching them enhance skill learning?”** - Mariane Bacelar; Jence Rhoads; Marcos Daou; Won Valerius; Briana Carter; Lucia Scaglione; Keith Lohse; Matthew Miller
14. **“Physical activity and restless legs syndrome in persons with multiple sclerosis”** - Katie L.J. Cederberg; Brenda Jeng; Jeffer E. Sasaki; Robert W. Motl
15. **“Lower-extremity Constraint-Induced Movement Therapy (LE-CIMT): characterizing the Protocol”** - Sarah Dos Anjos; David Morris; Edward Taub
16. **“Effect of Lower-Extremity Constraint-Induced Movement Therapy protocol on gait and mobility after stroke: a case study”** - Sarah Dos Anjos; David Morris; Edward Taub
17. **“A Narrative Exploration of the Evolving Perception of Exercise within People with Multiple Sclerosis”** - Emma V. Richardson; Elizabeth A. Barstow; Robert W. Motl
18. **“Energetic Cost of Walking and Spasticity in Persons with Multiple Sclerosis with Moderate Disability”** - Brenda Jeng; Dr. Brian Sandroff; Dr. Robert W. Motl
19. **“The Effect of Exercise Intensity on the Kinematics of Reach Performance and Brain Derived Neurotrophic Factor”** - Jessica F. Baird; Mary E. Gaughan; Heath M. Saffer; Mark A. Sarzynski; Troy M. Herter; Stacy L. Fritz; Dirk B. den Ouden; Jill C. Stewart
20. **“A Qualitative Study of Exercise and Physical Activity among Adolescents with Pediatric Onset Multiple Sclerosis”** - E. Morghen Sikes; Emma V. Richardson; Robert W. Motl
21. **“Adaptive Gymnastics – Executive Functions, Perceived Competence and Fitness Skills of Children with Developmental Disabilities”** - Claire Bridges; Robyn Feiss; Mary E. Rudisill; Sheri Thornburg-Brock; Matthew Miller; Melissa Pangelinan
22. **“Racial/Ethnic Differences in Obesity in Individuals with Spinal Cord Injury: The Impact of Disadvantaged Neighborhood”** - Huacong Wen; Yuying Chen; Amanda L. Botticello; Sejong Bae

23. **“Biomechanical effects of walking against fore-aft resistance applied at the center of mass (COM)”** - Avantika Naidu; Christopher P. Hurt; David A. Brown

24. **“Examining the relationship between driving outcomes and perceived injustice among individuals with chronic low back pain”** - Albatool Alnojeidi; Joshua Seward; Deanna Rumble; Maegan Gates; Nina Attridge; Despina Stavrinos; David Moore; Zina Trost

25. **“The Impact of Injustice Appraisals on Pain and Psychosocial Outcomes in an Inpatient Spinal Cord Injury Rehabilitation Program”** - Monima Anam; Alexandra Wike; Ashley Garner; Liza Nowlin; Tori Wheelis; Kimberley Monden; Adriel Boals; Doerthe Bernsten; Zina Trost

26. **“Exploring the Role of Pain Catastrophizing in Driving Behavior among Individuals with Chronic Low Back Pain”** - Joshua Seward; David Moore; Maegan Gates; Deanna Rumble; Nina Attridge; Despina Stavrinos; Zina Trost

27. **“Effects of ketogenic diet on neuro-recovery in individuals with acute spinal cord injury”** - Jia Li; Adarsh Kulkarni; Paige Farley; Cassie Renfro; Hammad Aslam; Patrick Bosarge; Keneshia Kirksey; Landon Wilson; Stephen Barnes; Ceren Yarar-Fisher

28. **“Substance Abuse and Smoking Choices: A Comparison Between Electronic-Cigarettes Users and Tobacco Smokers”** - Abdullah M. Alanazi; Eric W. Ford

29. **“The Validity of Using Surface EMG of Extra-Diaphragmatic Respiratory Muscles for Assessing Respiratory Mechanics in Patients on Mechanical Ventilation, A Systematic Review and Meta-analysis”** - Hassan Y. AbuNurah; John Lowman

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