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	Saturday July 14	Sunday July 15	Monday July 16	Tuesday July 17	Wednesday July 18
early			yoga at waterfront	yoga at waterfront	yoga at waterfront
		<p>8:30–9:30 <i>Keynote:</i> Motor control programs and locomotion Francesco Lacquaniti [Adirondack]</p> <p>9:30–10:00 Break w/ coffee; visit exhibitors [Montpelier]</p> <p>10:00–12:00 3 concurrent oral sessions: • Aging–Posture control [Lake Champlain] • Cognitive Influences on Posture and Locomotion [Green Mountain A&B] • Rehabilitation and Training: Stroke [Green Mountain C]</p>	<p>8:30–9:30 <i>Keynote:</i> Intervention to promote healthy aging and fall prevention Laurence Rubenstein [Adirondack]</p> <p>9:30–10:00 Break w/ coffee; visit exhibitors [Montpelier]</p> <p>10:00–12:00 Poster viewing (4 categories) • Visual functions • Aging 2 • Rehabilitation and Training • Development of Posture and Gait [Mezzanine; Vermont; Burlington*] *special posters associated with Dr. Aftab Patla</p>	<p>8:30–9:30 <i>Keynote:</i> Why do we walk the way we do? Mechanical determinants of the metabolic cost of healthy and pathological gait Max Donelan [Adirondack]</p> <p>9:30–10:00 Break w/ coffee; visit exhibitors [Montpelier]</p> <p>10:00–12:00 3 concurrent oral sessions: • Aging–Gait control [Lake Champlain] • Neurophysiology of Sensorimotor Control [Green Mountain A&B] • Rehabilitation and Training: Parkinson's Disease [Green Mountain C]</p>	<p>8:30–9:30 <i>Keynote:</i> From theory to therapy: Implementing innovations in rehabilitation technology Tamar Weiss [Adirondack]</p> <p>9:30–10:00 Break w/ coffee; visit exhibitors [Montpelier]</p> <p>10:00–11:45 <i>Featured symposia:</i> Attentional mechanisms in balance control Moderators: Shumway-Cook and Teasdale; Maki, Redfern, Woollacott [Green Mountain]</p>
morning		<p>12:00–1:00 Buffet Lunch [Adirondack]</p>	<p>12:00–1:00 Special Tribute to Dr. Aftab Patla Stance phase support—Don't ignore the musculoskeletal anthropometrics Winter, Frank [Lake Champlain] Take away lunch [Adirondack]</p>	<p>12:00–2:00 General Assembly Lunch Meeting [Adirondack]</p>	<p>12:00–2:00 Wyndham/Sit down Food for thought – lunch and debate: Translating basic research into clinical practice: Proof of progress Nutt, Nashner [Adirondack]</p>
	lunch	<p>2:00–4:00 Board meeting (All Seasons Room, Wyndham) [Lake Champlain] Conference Registration and poster set up for Sunday's posters [North Pre-function Area]</p> <p>5:00–5:45 <i>Keynote:</i> Neural mechanisms underlying balance control Jane Macpherson [Adirondack]</p> <p>5:45–7:00 <i>Special Symposia:</i> Beyond Macpherson: Physiological mechanisms underlying postural responses Ting, Nichols, Stapley [Adirondack]</p>	<p>1:00–2:30 Poster viewing (5 categories) • Aging 1 • Biomechanics 1 • Cognitive Influences on Posture and Locomotion • Vestibular functions • Assistive Technologies [Mezzanine; Vermont]</p> <p>2:30–2:45 Break w/ coffee [Montpelier]</p> <p>2:45–4:30 <i>Featured Symposia:</i> Functional imaging of axial motor control Moderators: Bloem and Nagle; Toni, Mori, Nielsen [Green Mountain]</p>	<p>Free Afternoon</p> <p>hiking, biking, kayaking, sailing, bus to Stowe, Shelburne Museum</p>	<p>2:00–3:45 <i>Featured symposia:</i> Understanding the bilateral coordination of walking; impact on gait disturbances Moderators: Hausdorf and Duysens; Plotnik, Nieuwboer, Havlin [Green Mountain]</p> <p>3:45–4:00 Break [Montpelier]</p> <p>4:00–6:00 Poster viewing (4 categories) • Multisensory Integration • Techniques and Methods of Posture and Gait Analysis 1 • Neurophysiology of Sensorimotor Control • Fear of Falling, Falls and Prevention [Mezzanine; Vermont; Burlington]</p>
afternoon		<p>7:00–8:00 Opening Reception [Adirondack]</p>	<p>5:15 <i>depart for Shelburne Farms</i> Opening Mozart Concert and Dressage Exhibition</p>	<p>7:00–11:00 Dinner cruise: <i>Spirit of Ethan Allen</i></p>	<p>6:30 Cocktails at Waterfront Park</p> <p>7:00–11:00 Waterfront Park for Conference Dinner/Student Awards</p>
	evening/social				

Awards

STUDENT AWARD for BEST POSTER

Two awards will be given in recognition of the best research by a student poster presenter. Creativity, clarity of presentation and originality of the research will be among the award criteria. The winners of the award will be announced at the banquet dinner on Tuesday evening, July 17th at the Conference Dinner.

Committee Chair: Emily Keshner, PT, EdD
 John Allum, PhD
 Marjorie Woollacott, PhD
 James S. Frank, PhD
 Mark Carpenter, PhD
 Laurence Mouchnino, PhD
 Bastiaan Bloem, PhD, MD
 Paul Dizio, PhD
 Jacques Duysens, PhD
 Normand Teasdale, PhD

DELSYS AWARD for BEST EMG PRESENTATION

Prize : Bagnoli -2 ch EMG system, EMGworks software and Desktop AD card (\$4,000 value).

The prize will be assigned to any author of a Paper or Poster presentation. The first author must make the presentation. Current employees and consultants of Delsys, as well as their families are excluded from the competition. A prize committee will review all candidate abstracts submitted to the conference. The three members of the prize committee will attend all candidate presentations and vote on each. The committee members will not communicate their vote or impressions at any time, other than by secrete ballot. Each presentation will be scored on a scale of 0 to 10, with 10 being the highest grade. The presentation receiving the highest combined score from all 3 committee members will be the winner. In the event of a tie, the prize committee members will enter into a debate, and by their own rules will choose a single winner from the tied candidates.

The score of ten (10) possible points will be awarded as follows:

- Novelty: 0-5 Points
- Clarity: 0-3 Points
- Persuasiveness: 0-2 Points

Committee members:
 Jane Macpherson, PhD
 John Allum, PhD
 Clive Pai, PhD

The winners of the award will be announced at the banquet dinner on Wednesday evening, July 18th at the Closing Reception.

Conference Schedule

SATURDAY, JULY 14, 2007

- 2–4 pm ISPGR Board meeting
[Lake Champlain Room]
Conference Registration and poster set up for Sunday's posters
[North Pre-function Area]
- 5–5:45 pm Keynote Speaker
“Neural mechanisms underlying balance control” (KS-1)
Jane Macpherson, PhD, Senior Scientist, Neurological Sciences Institute,
Portland, OR, USA
[Adirondack Ballroom C/D]
- 5:45–7 pm Featured Symposia (FS-1)
“Beyond Macpherson: Physiological mechanisms underlying postural responses”
Moderator: Lena Ting, PhD, Assistant Professor, Emory University and Georgia
 Institute of Technology, Atlanta, Georgia, USA
Speakers: Lena Ting, PhD
 Richard Nichols, PhD, Professor, Emory University,
 Atlanta, Georgia, USA
 Paul Stapley, PhD, Assistant Professor, McGill University,
 Montreal, QC, Canada
[Adirondack Ballroom C/D]
- 7–8 pm Opening Reception
[Adirondack Ballroom A/B]

SUNDAY, JULY 15, 2007

- 8:30–9:30 am Keynote Speaker (KS-2)
“Motor control programs and locomotion”
Francesco Lacquaniti, MD, Professor, University of Rome Tor Vergata and
IRCCS Fondazione Santa Lucia, Rome, Italy
[Adirondack Ballroom]
- 9:30–10 am Break; visit exhibitors
[Montpelier Room]
- 10 am–12 pm 3 concurrent oral sessions
Aging—Posture control [Lake Champlain]
Moderators: Drs. Lena Ting and Leslie Allison
- Age-related differences in body-segment rotation magnitudes during gaze reorientation while standing or walking on a treadmill***
M. Cinelli¹, A.E. Patla² and B.L. Stuart²
¹*Cognitive and Linguistic Sciences, Brown University, Providence, RI, USA and* ²*Kinesiology, University of Waterloo, Waterloo, ON, Canada*

Changes in mediolateral balance control in elderly fallers

I. Melzer¹, I. Kurz¹ and L. Oddsson²

¹Physical Therapy, Ben-Gurion University, Beer-Sheva, Israel and ²NeuroMuscular Research Center, Boston University, Boston, MA, USA

Adult age-specific and age-general effects of cognitive load on the regularity of whole-body coordination in dual-task walking

J. Verrel, M. Lövdén, A.E. Pohlmeyer, S. Schaefer and U. Lindenberger

Center for Lifespan Psychology, Max-Planck-Institute for Human Development, Berlin, Germany

The dynamics of multi-sensory re-weighting in healthy and fall-prone older adults

L.K. Allison¹, T. Kiemel² and J.J. Jeka²

¹Physical Therapy, East Carolina University, Greenville, NC, USA, ²Kinesiology, University of Maryland, College Park, MD, USA and ³Neuroscience and Cognitive Science, University of Maryland, College Park, MD, USA

Delays in voluntary step initiation are related to increased volume of white matter hyperintensities in older adults

P.J. Sparto¹, H.J. Aizenstein², J.M. VanSwearingen¹, C. Rosano³, J.M. Furman⁴, M.S. Redfern⁵ and S.A. Studenski⁶

¹Physical Therapy, University of Pittsburgh, Pittsburgh, PA, USA, ²Psychiatry, University of Pittsburgh, Pittsburgh, PA, USA, ³Epidemiology, University of Pittsburgh, Pittsburgh, PA, USA, ⁴Otolaryngology, University of Pittsburgh, Pittsburgh, PA, USA, ⁵Bioengineering, University of Pittsburgh, Pittsburgh, PA, USA and ⁶Medicine, University of Pittsburgh, Pittsburgh, PA, USA

Force platform balance measures as predictors of risk for falling indoors and outdoors in community dwelling 63 to 76-year-old women

S.S. Pajala¹, P. Era², M. Koskenvuo³, J. Kaprio⁴, T. Törmäkangas¹ and T. Rantanen¹

¹Department of Health Sciences, University of Jyväskylä, Jyväskylä, Finland, ²Finnish Brain Research and Rehabilitation Center Neuron, Kuopio, Finland, ³Department of Public Health, University of Helsinki, Helsinki, Finland and ⁴Department of Mental Health and Alcohol Research, National Public Health Institute, Helsinki, Finland

Cognitive Influences on Posture and Locomotion [Green Mountain Ballroom A&B]

Moderators: Drs. Marjorie Woollacott and Paul DiZio

Influence of postural anxiety on the cortical response associated with postural reactions to predictable and unpredictable trunk perturbations

A.L. Adkin¹, A.D. Campbell², R. Chua² and M.G. Carpenter²

¹Faculty of Applied Health Sciences, Brock University, St. Catharines, ON, Canada and ²School of Human Kinetics, University of British Columbia, Vancouver, BC, Canada

The effect of dual and multi-tasking on gait performance in a cohort of community dwelling elderly people

C.J. Bula¹, E. Martin¹, K. Aminian², S. Rochat¹, B. Najafi², V. Besson², M. Thomi¹, A. Vacheron¹, A. Karmaniola⁴, B. Carolina⁴, C. Piot-Ziegler³ and B. Santos-Eggimann⁴

¹Geriatrics, CHUV, Lausanne, Switzerland, ²LMAM, Ecole Polytechnique Fédérale de Lausanne, Lausanne, Switzerland, ³Health Psychology Unit, University of Lausanne, Lausanne, Switzerland and ⁴Institute for Social & Preventive Medicine, University of Lausanne, Lausanne, Switzerland

Age differences in walking and judging during different phases of gait

S.A. Fraser¹, K.Z. Li¹, V.B. Penhune¹, R.G. DeMont², M.C. Hendry¹, G. Abbud² and K. Hamati¹

¹Psychology, Concordia University, Montreal, QC, Canada and ²Exercise Science, Concordia University, Montreal, QC, Canada

Trace conditioning of automatic postural reflexes

A. Campbell, C. Dakin and M.G. Carpenter

*School of Human Kinetics, University of British Columbia, Vancouver, BC, Canada***Attention influences sensory integration during standing posture**M. Redfern¹, M. Muller² and J. Jennings²¹*Bioengineering, University of Pittsburgh, Pittsburgh, PA, USA and* ²*Psychology, University of Pittsburgh, Pittsburgh, PA, USA***Cognitive and motor mediators of the changes in gait stability during dual tasking in healthy older adults: single task performance does not necessarily predict dual task**J.M. Hausdorff⁴, G. Yogev², T. Herman², M. Brozgol², N. Inbar-Borowsky², L. Gruendlinger² and N. Giladi¹¹*Department of Neurology, Tel-Aviv Sourasky Medical Center, Tel-Aviv, Israel,* ²*Laboratory for Gait & Neurodynamics, Tel-Aviv Sourasky Medical Center, Tel-Aviv, Israel,* ³*Physical therapy department, Sackler School of Medicine, Tel-Aviv, Israel and* ⁴*Division on Aging, Harvard Medical School, Boston, MA, USA***Rehabilitation and Training: Stroke [Green Mountain Ballroom C]**

Moderators: Drs. Emily Keshner and Antonio Nardone

The impact of increasing plantarflexors and hip flexors muscle strength on the level of effort during gait in individuals with hemiparesisM. Marie-Helene¹, N. Sylvie², G. Denis², B. Daniel², C. Pauline² and C. Susan³¹*École de réadaptation, Université de Montréal, Montréal, QC, Canada,* ²*Institut de réadaptation de Montréal, CRIR, Montréal, QC, Canada and* ³*Hôpital de réadaptation Lindsay, Montréal, QC, Canada***Tai Chi improves standing balance in people with chronic stroke**S. Au-Yeung¹, C. Hui-Chan² and J. Tang³¹*Rehabilitation Sciences, The Hong Kong Polytechnic University, Hong Kong, China,* ²*Rehabilitation Sciences, The Hong Kong Polytechnic University, Hong Kong, China and* ³*Rehabilitation Sciences, The Hong Kong Polytechnic University, Hong Kong, China***Comparison of treadmill and overground walking at self-selected speed in persons with post-stroke hemiparesis**S.A. Kautz¹, C.K. Balasubramanian³, M.G. Bowden¹ and R.R. Neptune⁴¹*VA Brain Rehabilitation Research Center, Malcom Randall VA Medical Center, Gainesville, FL, USA,* ²*Physical Therapy, University of Florida, Gainesville, FL, USA,* ³*Rehabilitation Sciences Doctoral Program, University of Florida, Gainesville, FL, USA and* ⁴*Mechanical Engineering, The University of Texas, Austin, TX, USA***Learning postural tasks in hemiparetic patients with lesions of left versus right hemisphere**M. Ioffe², L. Chernikova¹, R. Umarova¹, N. Katsuba¹ and M. Kulikov²¹*Institute of Neurology of RAMS, Moscow, Russian Federation and* ²*Institute of Higher Nervous Activity & Neurophysiology, Moscow, Russian Federation***Mechanical work in hemiparetic gait**A.C. Christie¹, J.J. Eng² and M. Donelan¹¹*School of Kinesiology, Simon Fraser University, Burnaby, BC, Canada and* ²*School of Rehabilitation Sciences, UBC, Vancouver, BC, Canada*

Inappropriate flexor synergies influence walking mechanics that reduce paretic propulsion in persons with post-stroke hemiparesis

C.L. Peterson¹, R.R. Neptune¹ and S.A. Kautz²

¹*Department of Mechanical Engineering, The University of Texas at Austin, Austin, TX, USA and* ²*Brain Rehabilitation Research Center, Malcom Randall VA Medical Center, Gainesville, FL, USA*

- 12–1 pm Buffet Lunch
[Adirondack Ballroom]
- 1–2:30 pm Poster viewing (presenting author will be at poster during this time)
- Aging 1
 - Biomechanics 1
 - Cognitive Influences on Posture and Locomotion
 - Vestibular
 - Assistive Technologies
- [Mezzanine and Vermont Rooms]
- 2:30–2:45 pm Break; visit exhibitors
[Montpelier Room]
- 2:45–4:30 pm Featured Symposia
“Functional imaging of axial motor control” (FS-2)
- Moderators: Bastiaan R. Bloem, MD, PhD, Nijmegen Medical Center,
Radboud University, Nijmegen, The Netherlands
Keith J. Nagle, MD, Director of Neurophysiology Lab,
Fletcher Allen Health Care, Burlington, VT, USA
- Speakers: Ivan Toni, PhD, FC Donders Center for Cognitive Neuroimaging,
Radboud University, Nijmegen, The Netherlands
Futoshi Mori, PhD, Associate Professor, Yamaguchi University, Japan
Jens Bo Nielsen, PhD, Professor, University of Copenhagen, Denmark
- [Green Mountain Ballroom]
- 5:15 pm Depart from front of Wyndham Hotel for Shelburne Farms
(Mozart Concert and Dressage Exhibition)

MONDAY, JULY 16, 2007

- 7–8 am Yoga at waterfront
[Lake Champlain Room – Wyndham Hotel, if weather is inclement]
- 8:30–9:30 am Keynote Speaker (KS-3)
“Intervention to promote healthy aging and fall prevention”
Laurence Rubenstein, MD, MPH, Professor, University of California,
Los Angeles, CA, USA
[Adirondack Ballroom]
- 9:30–10 am Break; visit exhibitors
[Montpelier Room]
- 10 am–12 pm Poster viewing (presenting author will be at poster during this time)
- Visual functions
 - Aging 2
 - Rehabilitation and Training

- Development of Posture and Gait
[Mezzanine; Vermont; Burlington*]
*Special posters associated with Dr. Aftab Patla
- 12–1 pm Special Tribute to Dr. Aftab Patla
Introduction by James S. Frank, PhD, Professor and Dean of Graduate Studies and Research, University of Windsor, Windsor, ON, Canada
Special seminar:
“Stance Phase Support—Don’t Ignore the Musculoskeletal Anthropometrics”
Speaker: David Winter, PhD, Professor Emeritus, University of Waterloo, Waterloo, ON, Canada
[Lake Champlain Room]
Take away lunch
[Adirondack Ballroom]
- Afternoon free for social activities
- 6:30–9 pm Dinner cruise
Spirit of Ethan Allen—boat departs at 6:30 pm from the Boathouse (at waterfront across the street from the Wyndham Hotel)

TUESDAY, JULY 17, 2007

- 7–8 am Yoga at waterfront
[Lake Champlain Room – Wyndham Hotel, if weather is inclement]
- 8:30–9:30 am Keynote Speaker (KS-4)
“Why do we walk the way we do? Mechanical determinants of the metabolic cost of healthy and pathological gait”
Maxwell Donelan, PhD, Assistant Professor, Simon Fraser University, Burnaby, BC, Canada
[Adirondack Ballroom]
- 9:30–10 am Break; visit exhibitors
[Montpelier Room]
- 10 am–12 pm 3 concurrent oral sessions

Ageing—Gait control [Lake Champlain]

Moderators: Drs. Bradford Macfayden and Kazuo Ishikawa

Visually guided step turns: the effect of age on the movement pattern and muscle activation pattern

D. Taylor¹, L. Ngan-Hing¹, N. Shepard², A. Ashburn³, M. Burnett³ and J. Burgneay⁴

¹Health and Rehabilitation Research Centre, AUT University, Auckland, New Zealand, ²Department of Special Education and Communication Disorders, University of Nebraska, Lincoln, NE, USA, ³The Stroke Association Rehabilitation Research Centre, University of Southampton, Southampton, UK and ⁴ISVR, University of Southampton, Southampton, UK

Evidence for a Link Between Age-Related Visuomotor Decline and Inaccurate Foot Placement During Adaptive Locomotion

G.J. Chapman, W.R. Young and M.A. Hollands

School of Sport and Exercise Sciences, University of Birmingham, Birmingham, UK

Ageing and the efficiency of steady-state uphill walking

J.D. Ortega¹ and C.T. Farley²

¹Kinesiology, Humboldt State University, Arcata, CA, USA and ²Integrative Physiology, University of Colorado, Boulder, CO, USA

How do shoe features affect dynamic balance and perceived stability during gait?

J. Menant¹, S.D. Perry², H.B. Menz³, B.J. Munro⁴, J.R. Steele⁴ and S.R. Lord¹

¹Prince of Wales Medical Research Institute, Sydney, NSW, Australia, ²Department of Kinesiology and Physical Education, Wilfrid Laurier University, Waterloo, ON, Canada, ³Musculoskeletal Research Centre, La Trobe University, Bundoora, VIC, Australia and ⁴Biomechanics Research Laboratory, Wollongong University, Wollongong, NSW, Australia

Dynamic stability of gait in elderly fallers and non-fallers

R. Wright¹, D. Peters¹, P. Robinson¹ and M. Hollands²

¹School of Sport & Exercise Science, University of Worcester, Worcester, UK and ²School of Sport & Exercise Sciences, University of Birmingham, Birmingham, UK

Aging affects the steering of locomotion induced by changing optic flows

J.R. Berard¹, J. Fung¹, B.J. McFadyen² and A. Lamontagne¹

¹School of Physical and Occupational Therapy, McGill University, Montreal, QC, Canada and ²Dept of Rehabilitation, Laval University, Montreal, QC, Canada

Neurophysiology of Sensorimotor Control Green Mountain Ballroom A&B]

Moderators: Drs. Mark Redfern and Yuri Ivanenko

Multi-segmental control of stance following vestibular and proprioceptive loss

C. Horlings¹, U.M. K ng¹, F. Honegger¹, B.R. Bloem², B.G. van Engelen² and J.H. Allum¹

¹ORL, University Hospital, Basel, Switzerland and ²Neurology, Radboud University Medical Center, Nijmegen, Netherlands

Muscle activity in the arms and legs of humans is modulated by single low threshold mechanoreceptors in the skin of the foot

L. Bent¹, C. Lowrey¹, K. Thomas¹, J. Fallon² and V. Macefield²

¹University of Guelph, Guelph, ON, Canada and ²Prince of Wales Medical Research Institute, Sydney, NSW, Australia

Ataxia in compressive cervical myelopathy: a role for long-loop responses?

A. Nardone¹, M. Galante¹, M. Godi¹, M. Grasso¹ and M. Schieppati²

¹Division of Physical Therapy and Rehabilitation, Fondazione Salvatore Maugeri, Veruno (Novara), Italy and ²Department of Experimental Medicine, University of Pavia, Pavia, Italy

Recalibration of locomotor patterns in patients with cerebellar deficits

W. Ilg, R. Roehrig, P. Thier and M.A. Giese

Cognitive Neurology, Hertie Institute for Clinical Brain Science, University Clinic Tuebingen, Tuebingen, Germany

Effects of aging and stroke on sensory recalibration in the control of upright balance

N. Bugnariu¹ and J. Fung²

¹School of Rehabilitation Sciences, University of Ottawa, Ottawa, ON, Canada, ²School of Physical & Occupational Therapy, McGill University, Montreal, QC, Canada and ³Jewish Rehabilitation Hospital (CRIR) Research Center, Laval, QC, Canada

Cortical activity associated with compensatory balance reactions: Comparison of healthy adults and individuals with neurologic injury

W.E. McIlroy¹, K.M. Sibley⁴, J. Camilleri⁵, K.F. Zabajek⁶ and W.H. Gage⁷

¹Kinesiology, University of Waterloo, Waterloo, ON, Canada, ²Toronto Rehabilitation Institute, Toronto, ON, Canada, ³HSFO Centre for Stroke Recovery, Sunnybrook Research Institute, Toronto, ON, Canada, ⁴Institute of Medical Sciences, University of Toronto, Toronto, ON, Canada, ⁵Graduate Department of Rehabilitation Sciences, University of Toronto, Toronto, ON, Canada, ⁶Physical Therapy, University of Toronto, Toronto, ON, Canada and ⁷School of Kinesiology and Health Sciences, York University, Toronto, ON, Canada

Rehabilitation and Training: Parkinson's Disease [Green Mountain Ballroom C]

Moderators: Drs. Fay Horak and Bastiaan Bloem

Contributions of the pre-supplementary motor area, premotor cortex, primary motor cortex, and basal ganglia to anticipatory postural adjustments for step initiation

F. Horak¹, J.V. Jacobs¹, J. Lou² and J. Kraakevik²

¹Balance Disorders Lab, Neurological Sciences Institute, Oregon Health & Science University, Beaverton, OR, USA and ²Dept of Neurology, Oregon Health & Science University, Portland, OR, USA

The Effect of Argentine Tango on Functional Mobility in People with Parkinson Disease

M.E. Hackney and G. Earhart

Program in Physical Therapy, Washington University School of Medicine, St. Louis, MO, USA

Parkinson's disease affects whole body pointing movements

M. Tagliabue¹, G. Ferrigno² and F. Horak³

¹LNRS, CNRS, Université René Descartes, Paris, France, ²Biomedical Engineering Dept., Politecnico di Milano, Technical University, Milano, Milano, Italy and ³Depts of Neurology, Physiology & Pharmacology and Biomedical Engineering, Neurological Sciences Institute, OHSU, Portland, OR, USA

The process of integration of visual information during a dynamic equilibrium task in Parkinsonian patients

M. Schieppati¹, A.M. De Nunzio² and A. Nardone²

¹Experimental Medicine, Università di Pavia, Pavia, Italy and ²Centro Studi Attività Motorie, Fondazione Salvatore Maugeri (IRCCS), Pavia, Italy

Postural sway and striatal dopaminergic denervation in Parkinson disease and healthy aging adults

M. Muller¹, G.M. Constantine², R.Y. Moore³ and N.I. Bohnen¹

¹Functional Neuroimaging, Cognitive, and Mobility Laboratory, University of Michigan, Ann Arbor, MI, USA, ²Department of Mathematics, University of Pittsburgh, Pittsburgh, PA, USA and ³Department of Neurology, University of Pittsburgh, Pittsburgh, PA, USA

Axial motor control in Parkinson's disease during upright vertical axis rotation: en bloc and stabilization strategies

D. Solomon¹, E. Grace² and K. Robinson³

¹Neurology, Johns Hopkins University, Baltimore, MD, USA, ²Physical Therapy, University of Pennsylvania, Philadelphia, PA, USA and ³Physical Medicine and Rehabilitation, University of Pennsylvania, Philadelphia, PA, USA

- 12–2 pm ISPGR General Assembly Meeting Lunch
[Adirondack Ballroom]
- 2–3:45 pm Featured symposia (FS-3)
“Understanding the bilateral coordination of walking: impact on gait disturbances”
Moderators: Jeffrey Hausdorf, PhD, Harvard Medical School, Boston, MA, USA
and Director, National Parkinson Foundation Center of Excellence,
Tel-Aviv Sourasky Medical Center, Israel
Jacques Duysens, MD, PhD, Professor, Radboud University,
Nijmegen, The Netherlands
Speakers: Meir Plotnik, PhD, Senior researcher, Tel-Aviv Sourasky Medical
Center, Israel
Alice Nieuwboer, PhD, PT, Associate Professor, Catholic University
Leuven, Belgium
Shlomo Havlin, PhD, Professor, Bar Ilan University, Israel
[Green Mountain Ballroom]
- 3:45–4 pm Break; visit exhibitors
[Montpelier Room]
- 4–6 pm Poster viewing (presenting author will be at poster during this time)
• Multisensory Integration
• Techniques and Methods of Posture and Gait Analysis 1
• Neurophysiology of Sensorimotor Control 1
• Fear of Falling, Falls and Prevention
[Mezzanine; Vermont & Burlington Rooms]
- 6:30 pm Cocktails at the Waterfront Park (cash bar)
- 7–11 pm Waterfront Park for Conference Dinner/Student Awards

WEDNESDAY, JULY 18, 2007

- 7–8 am Yoga at waterfront
[Lake Champlain Room – Wyndham Hotel, if weather is in climate]
- 8:30–9:30 am Keynote Speaker (KS-5) “From Theory to Therapy: Implementing Innovations in
Rehabilitation Technology”
Tamar Weiss, PhD, OT, Professor, University of Haifa, Israel
[Adirondack Ballroom]
- 9:30–10 am Break; visit exhibitors
[Montpelier Room]
- 10–11:45 am Featured symposia (FS-4)
“Attentional Mechanisms in Balance Control”
Moderators: Ann Shumway-Cook, PhD, PT, Professor, University of Washington,
Seattle, WA, USA
Normand Teasdale, PhD, Professor, University of Laval,
Ste-Foy, QC, Canada
Speakers: Brian Maki, PhD, PEng, Professor, University of Toronto,
Toronto, ON, Canada
Mark Redfern, PhD, Professor, University of Pittsburgh,
Pittsburgh, PA, USA
Marjorie Woollacott, PhD, Professor, University of Oregon,
Eugene, OR, USA
[Green Mountain Ballroom]

- 12–2 pm Sit down Lunch
 Debate: “Food for thought – lunch and debate: Translating basic research into clinical practice: Proof of progress”
 John Nutt, MD, Professor, Oregon Health and Science University, Portland, OR, USA
 Lewi Nashner, PhD, President and CEO, Neurocom International, Clackamas, OR, USA
 [Adirondack Ballroom]
- 2–3:30 pm Poster viewing (presenting author will be at poster during this time)
- Somatosensory Functions
 - Biomechanics 2
 - Neurophysiology of Sensori-Motor Control 2
 - Techniques and Methods of Posture and Gait Analysis 2
- [Mezzanine and Vermont Rooms]
- 3:30–4 pm Break; visit exhibitors
 [Montpelier Room]
- 4–5:30 pm 3 concurrent oral sessions

Fear of Falling, Falls and Prevention [Lake Champlain]

Moderators: Drs. Mark Carpenter and James Frank

Evaluation of a perturbation-based balance-training program to train more effective change-in-support reactions in older adults

A. Mansfield¹, A.L. Peters², B.A. Liu³ and B.E. Maki²

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Segment contributions to a standing turn in young and old adults under different task constraints

J. Baird and R. VanEmmerik

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Obstacle avoidance in people with rheumatoid arthritis

E. Smulders¹, V. Weerdesteyn², C. Schreven¹, W. van Lankveld³ and J. Duysens²

¹*Research, Development and Education, Sint Maartenskliniek, Nijmegen, Netherlands*, ²*Rehabilitation Medicine, Radboud University Nijmegen Medical Centre, Nijmegen, Netherlands* and ³*Department of Rheumatology, Sint Maartenskliniek, Nijmegen, Netherlands*

Weight loss improves balance control

N. Teasdale¹, O. Hue¹, M. Simoneau¹, A. Tremblay¹, P. Marceau², M. Simon², B. Simon² and B. Félix¹

¹*Kinesiology, Université Laval, Québec, QC, Canada* and ²*General Surgery, Hôpital Laval, Québec, QC, Canada*

Sensory Function in Posture Control [Green Mountain Ballroom A&B]

Moderators: Drs. Lorenzo Chiari and Jose Barela

Visual field dependence-independence before and after unilateral vestibular loss

L. Borel¹, C. Lopez¹, J. Magnan² and M. Lacour¹

¹*Lab Neurobiologie Intégrative et Adaptative. UMR 6149, Université de Provence/CNRS, Marseille, France* and ²*Service d'Oto-rhino-laryngologie et Chirurgie Cervico-faciale, Hôpital Nord, Marseille, France*

Directional tuning of neck muscle force produced by linear vestibulocollic reflexesA. Green¹ and G. Gdowski²¹*Biomedical Engineering, University of Rochester, Rochester, NY, USA* and ²*Neurobiology and Anatomy, University of Rochester, Rochester, NY, USA***Non-linear analysis of stabilometric signals can predict Ménière's disease vertigo attacks**P. Gagey², O. Sasaki¹, S. Usami³ and S. Sakura³¹*ENT, aSakura Clinic, Tokyo, Japan*, ²*Institut de Posturologie, L'Hay-les-Roses, IdF, France* and ³*ENT, Shinshu University, Matsumoto, Japan***Prosthetic device based on multi-modal feedback improves balance control for the healthy young and elderly**J.H. Allum¹, J.R. Davis², M.G. Carpenter², S. Meyes³, R. Tschanz³, D. Debrunner³ and J. Burger³¹*University Hospital Basel, Basel, Basel, Switzerland*, ²*School of Human Kinetics, University of British Columbia, Vancouver, BC, Canada* and ³*Technical University of Applied Sciences, Biel, Bern, Switzerland***Biomechanics of posture control [Green Mountain Ballroom C]**

Moderators: Drs. John Scholz and John Allum

Shared muscle synergies in the stance leg during stepping and non-stepping postural responses

S.A. Chvatal, G. Torres-Oviedo and L.H. Ting

*Department of Biomedical Engineering, Emory University and Georgia Institute of Technology, Atlanta, GA, USA***The adaptive control of stair descent behavior**L.C. Pelland¹, B. Joss², A. Leroux³, E. Charbonneau¹ and J. Cybulski¹¹*School of Rehabilitation Therapy, Queen's University, Kingston, ON, Canada*, ²*Human Mobility Research Centre, Kingston, ON, Canada* and ³*Exercise Science, Concordia University, Montreal, QC, Canada***Strategies for anticipatory postural adjustments preceding multi-directional pointing in man**

J. Leonard, R. Brown and P.J. Stapley

*Kinesiology and Physical Education, McGill University, Montreal, QC, Canada***The spring-like model for the equilibrium control during human upper trunk bending**

A. Alexandrov and A. Frolov

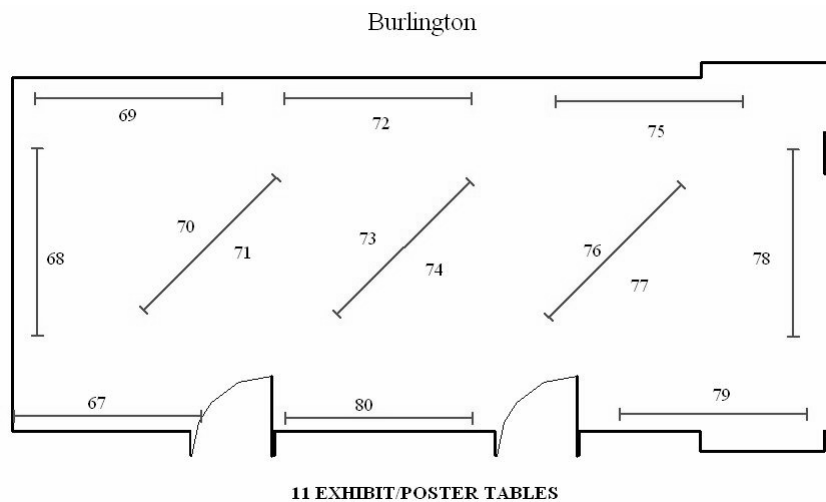
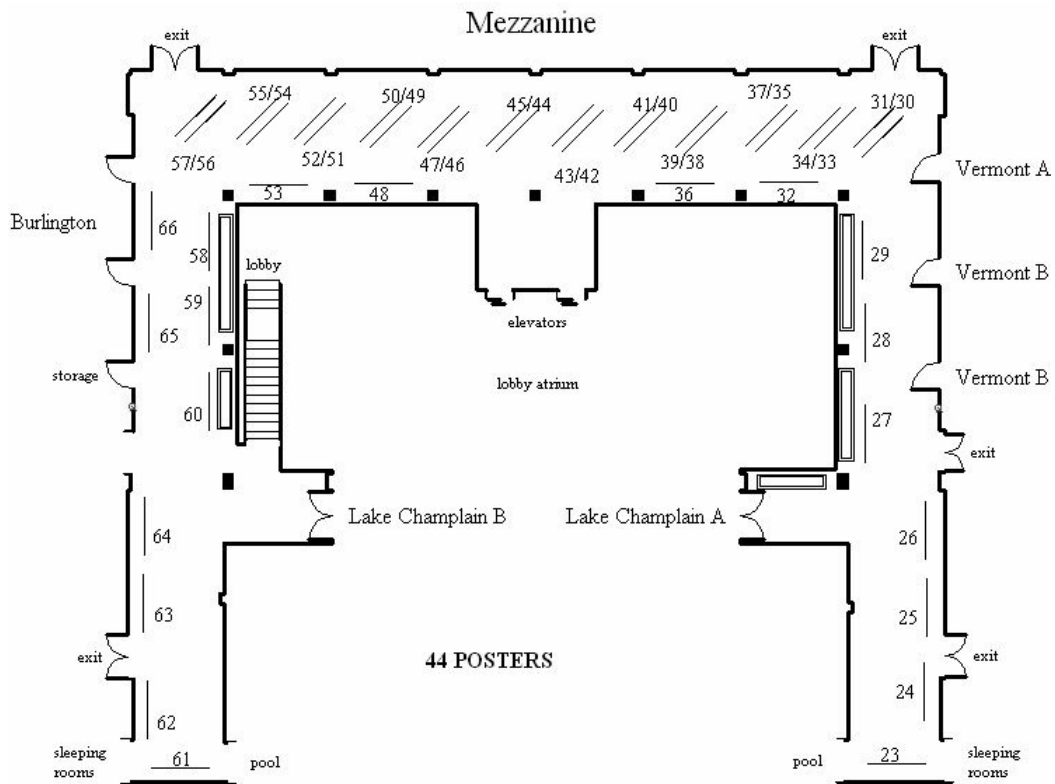
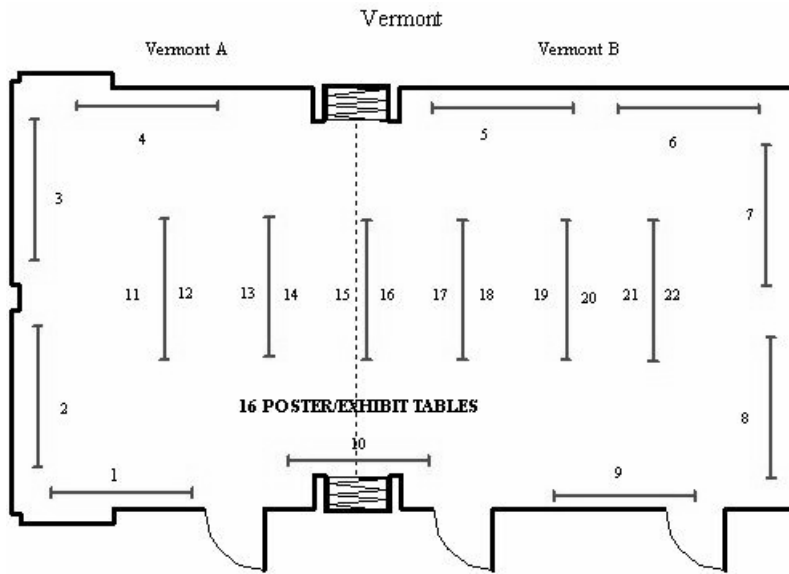
Institute of Higher Nervous Activity and Neurophysiology, Russian Academy of Sciences, Moscow, Russian Federation

5:30–6:30 pm Closing Reception/DELSYS EMG award

[Adirondack Ballroom]

7–9 pm Moonlight kayaking on the lake

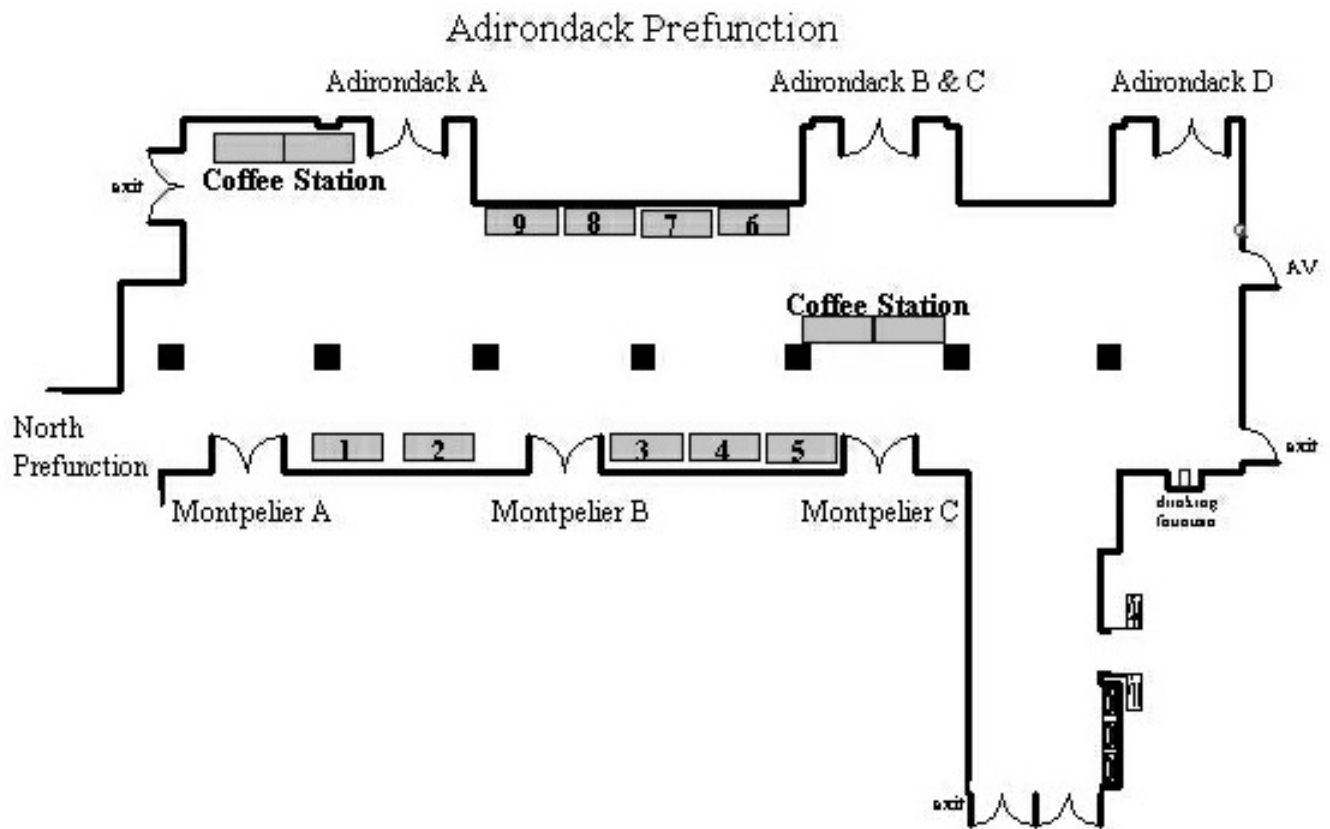
Poster Layout



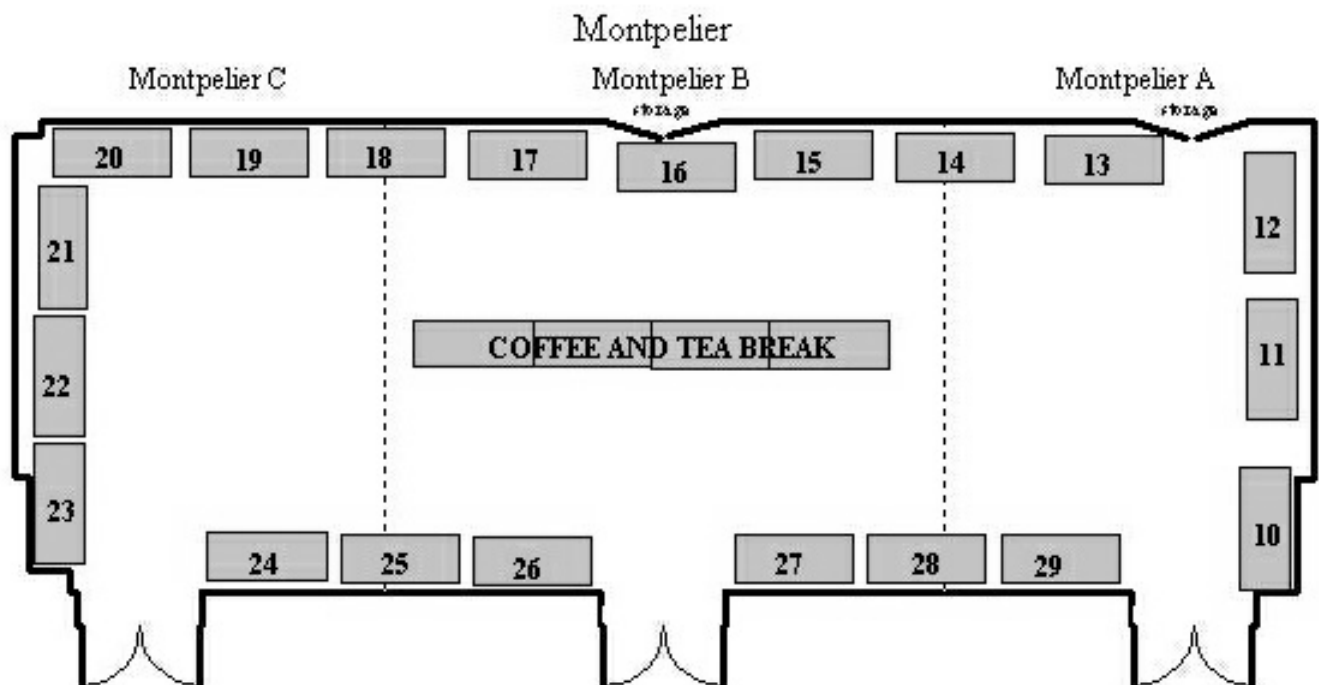
Exhibitors

AMTI	Booth #25	Innovision Systems	Booth #15
176 Waltham Street		3717 Peters Rd.	
Watertown, MA 02472, USA		Columbiaville, MI 48421-9304	
617-926-6700		810-793-5530	
617-926-5045 (fax)		810-793-1714 (fax)	
www.amti.com		www.innovision-systems.com	
Bertec Corp	Booth #17	Kistler Instrument Corp	Booth #11
6171 Huntley Road, Suite J		75 John Glenn Drive	
Columbus, OH		Amherst NY 14228	
614-430-5421 ext 221		716-691-5100	
614-439-5425 (fax)		716-691-5226 (fax)	
www.Bertec.com		www.kistler.com	
Clevemed	Booth #24	Micromedical Technologies	Booth #19
4415 Euclid Avenue		10 Kemp Drive	
Cleveland, OH		Chatham, ILL 62629	
216-619-5918		217-483-2122	
216-791-6739 (fax)		217-483-4533 (fax)	
www.clevemed.com		www.micromedical.com	
CodaMotion	Booth #18	Microstrain	Booth #28
Unit 2, Victoria Mills,		310 Hurricane Lane, Suite 4	
Fowke Street, Rothley,		Williston, VT	
Leicestershire, LE7 7PJ,		802-862-6629	
United Kingdom		802-863-4093 (fax)	
+44 (0)116 230 1060		www.microstrain.com	
+44 (0)116 230 1857 (fax)			
www.codamotion.com		Motion Analysis	Booth #21
		3617 Westwind Blvd	
Delsys	Booth #16	Santa Rosa, CA 95403	
PO Box 15734		707-579-6500	
Boston, MA 02215		707-526-0629 (fax)	
617-236-0599		www.motionanalysis.com	
617-236-0549 (fax)			
www.delsys.com		Motion Lab Systems	Booth #29
		15045 Old Hammond Hwy	
GaitRite – CIR Systems	Booth #12	Baton Rouge, LA	
60 Garlor Drive		225-272-7364	
Havertown, PA USA		225-272-7336 (fax)	
610-449-4879		www.motion-labs.com	
610-853-2925 (fax)			
www.gaitrite.com			

Exhibitor Booth Layout



20 EXHIBIT TABLES



Key to Abstracts

KS = Keynote Session

FS = Featured Symposia

Concurrent Oral and Poster Sessions

First character denotes day of presentation

S = Sunday, July 15

M = Monday, July 16

T = Tuesday, July 17

W = Wednesday, July 18

Second character denotes session

O = Oral

P = Poster

Number denotes order of presentation (for oral) or board number (for poster)