

## Sunday, SEPT 6, 2015

Arrival to Bratislava

- 10:00 Refreshment point: Institute of Normal and Pathological Physiology, Sienkiewiczova 1, Bratislava
- 14:00 Meeting point in Bratislava, Fajnorovo nábrežie
- 14:30 Shuttle bus from Bratislava to Smolenice Castle
- 15:30 Registration and accommodation in Smolenice Castle
- 17:00 Opening address
- 17:15 Keynote Lecture by Jeffrey M. HAUSDORFF: A Multi-modal approach to reducing fall risk: Motor-cognitive interactions and their potential plasticity
- 19:00 Welcome reception

## Monday, SEPT 7, 2015

7:00 Breakfast

### Session 1

- 8:00 **F.B. Horak** Cognitive contributions to coupling posture and gait
- 8:40 M.J. Bancroft Online adjustment of gait initiation before foot–lift
- 8:55 F. Hlavačka Anticipatory postural adjustments affected by the sensory manipulation in young and elderly subjects
- 9:10 C. McCrum A protocol to assess locomotor plasticity and dynamic gait stability using the Computer Assisted Rehabilitation Environment
- 9:25 Z. Svoboda Relationship between walking activity and postural stability in middle-age women
- 9:40 N.P. Reeves Age effects on mediolateral balance control

9:55 Coffee break

### Session 2

- 10:25 **R.J. Peterka** Normal and abnormal regulation of corrective torque required for human balance control
- 11:05 I.M. Schut The effect of compliant support surfaces on sensory reweighting of proprioceptive information in human balance control
- 11:20 L. Asslaender Effect of visual cues on trunk stabilization during support surface tilts
- 11:35 C.A. Vernooij Functional muscular coordination underlying movement pattern changes
- 11:50 Z. Hirjakova Breathing changes associated with postural improvement due to visual biofeedback
- 12:05 M. Lakie What does spinning tell us about shaking?

12:20 Lunch

### Session 3

- 13:50 **B.L. Day** Visual rotation influences bipedal stance via self-motion and gravity estimates
- 14:30 R.F. Reynolds Body orientation illusions and vestibular reflexes reveal a dissociation of proprioception for perception versus action
- 14:45 C.J. Dakin Which way is up? Visual uncertainty in the estimation of gravity
- 15:00 L. Gandemer Integration of dynamical auditory information into postural control process
- 15:15 J.L. Honeine Processing time of addition or withdrawal of single or combined balance-stabilizing haptic and visual information

15:30 Coffee break

### POSTER SESSION 1

### Session 4

- 16:40 **T. Mergner** New developments in controlling balance of humanoid robots with the human-derived disturbance estimation and compensation (DEC) concept
- 17:25 L. Chiari Inferring quality and quantity of physical activity performed at home from postural sway measures: More than meets the eye?
- 17:40 J.H. Pasma Applying multiple perturbations and system identification techniques to assess the underlying systems involved in standing balance
- 17:55 J. van Kordellar Responsiveness to support surface rotations predicts balance recovery capacity
- 18:10 J. Krohova An algorithm for the automatic segmentation of sit to stand and stand to sit transitions
- 18:25 M. Smondrk Validity of a sensor-based tool for trunk mobility assessment

19:30 Barbecue + Folk music

## Tuesday, SEPT 8, 2015

7:00 Breakfast

### Session 5

- 8:00 **A.S. Aruin** Training-related enhancement of anticipatory postural adjustments in older adults
- 8:40 M. Cenciariini Identification of the pathological state based on movement characteristics in Parkinson's disease
- 8:55 I. Di Giulio Influence of levodopa on postural instability in Parkinson's disease
- 9:10 A. Meigal Dry immersion as a therapeutic intervention to improve motor and non-motor deficits in Parkinson's disease patients: A feasibility study
- 9:25 C. Pradhan Automated classification of gait disorders using spatio-temporal data
- 9:40 J. Decker Investigation of position and forces on the gait cycle in bilateral vestibulopathy patients

9:55 Coffee break

### POSTER SESSION 2

### Session 6

- 10:55 **J.S. Frank** Learning to control balance: Lessons from rehabilitation and sport
- 11:35 V. Hatzitaki Type of sport expertise biases sensory integration for spatial orientation and postural control
- 11:50 C. Maurer Proprioceptive down-weighting in toxic neuropathy (CIPN) and effects of balance training
- 12:05 T. Kienbacher Age and gender related neuromuscular and kinematic pattern during trunk flexion-extension in chronic low back pain patients
- 12:20 G. Ebenbichler Test to retest reliability of SMART EquiTest postural control and performance measures in sarcopenic lung transplant recipients

12:35 Lunch

14:00 Workshops (APDM, Tekscan)

15:00 Social activities

19:30 Farewell Dinner

## Wednesday, SEPT 9, 2015

7:00 Breakfast

### Session 7

- 8:00 **E. Zemkova** State of the art assessment of core stability and core strength
- 8:40 H. Fischer Bi- and monopodal postural control after endurance exercises at distinct intensities
- 8:55 J.W. Blaszczyk Assessment of postural stability based on sway vector
- 9:10 C. Haburcakova Postural control strategy in normal and vestibular ablated states studied in an animal model

9:25 Coffee break

### Session 8

- 9:40 V. Linnamo Use of a novel dynamic balance measurement system to examine balance control in aging
- 9:55 H. Sotirakis Aging effects on postural tracking of complex visual motions
- 10:10 F. Zahalka Selected postural stability parameters at senior's age
- 10:25 M. Saling Chronical instability of upright stance in senior patients

12:00 Lunch

13:30 Shuttle bus from Smolenice to Bratislava

14:30 Departure in Bratislava