ISPGR 2003

The Scientia
Sunday, 23 March 2003
to
Thursday, 27 March 2003
Monday, 24 March 2003

**Poster Display: Ageing and Balance**

**Poster** Leighton Hall  08:30 AM - 05:00 PM

- Effects of Cerebral Blood Flow Changes on Postural Stability
  *Ms Alison Oates*
- Evaluation of the effects of alcohol on standing gait
  *Dr Neil Longridge*
- Characterization of the instability of elderly persons during one-leg standing
  *Dr Marcos Duarte*
- Determinants of reduced functional mobility in healthy elderly women
  *Ms Nicole Quinn*
- Effects of ageing on the head and trunk movements during walking
  *Dr Yasuhiko Takei*
- Postural stability in elderly persons with gait problem
  *Prof Kiichiro Taguchi*
- Postural stability -- a tentative model for clinical understanding
  *Ms Britt Schumacher Mohr*
- Differences between young and elderly adults in temporal measurements when crossing over an obstacle
  *Dr Mark Latt*
- Energetic cost in "Timed up and Go" test in frail older people with postural abnormalities
  *Patrick Manckoundia for France Mourey*
- Age-related changes in concentric and eccentric muscle strength in the lower and upper extremity: a cross-sectional study
  *Ms Kim Delbaere*
- Decreased trunk angular displacement during sitting down: an early feature of ageing
  *Ms Veronique Dubost*

**Poster Display: Anticipatory Postural Control**

**Poster** Leighton Hall  08:30 AM - 05:00 PM

- Dance-like pointing with the leg: postural expertise and associated anticipatory postural adjustments
  *Mr Hadrien Ceyte*
- Postural changes induced by low back pain reflect an alternate postural strategy not simply pain
  *Paul Hodges for Lorimer Moseley*
- Anticipatory postural control and P300 during bilateral arm movement by oddball paradigm
  *Prof Katsuo Fujiwara*
- Speed and accuracy trade-off during whole body movements in upright standing
  *Dr Marcos Duarte*
- Anticipatory postural control and P300 during bilateral arm movements by oddball paradigm in older
  *Ms Michie Shigeiwa*

**Poster Display: Basic Control Mechanisms**

**Poster** Leighton Hall  08:30 AM - 05:00 PM

- Brain activation patterns during imagined stance and locomotion
  *Erich Schneider for Klaus Jahn*
- Does the spinal cord understand standing up?
  *Dr Brian Day*
- Control Pattern of a Combined Task
  *Dr Aftab Patla*
- Air-righting reflex in the decerebrated rat
  *Mr Ken Masuda*
- Vertebral column and evolution
  *Prof Alessandro Nutini*
- Task-specific neural and biomechanical prerequisite for motor fluidity in rising to walk
  *Mr François Tremblay*
- Initial posture and inertial loading of the head and neck influence muscle and joint kinematics in the
Dr Emily Keshner
Whole body modelling: application to rowing an ergometer

Dr Floren Colloud
Medio lateral sway and afferent input in quiet stance

Dr Mark Goss-Sampson
Beyond sliding doors: use of perception-action coupling

Mr Michael Cinelli
Fictive locomotion evoked by stimulation of cervical spinal cord in rats

Mr Sei-etsu Fujiwara
The effect of cerebral functions in erect standing posture

Prof Masahiko Yamamoto
Asymmetries in bilateral vertical jump take-off

Mr Nat Benjanuvatra
Electromyographic activities of the longissimus muscle and kinematics of the trunk and limbs during level, upslope and downslope treadmill walking in cats

Dr Naomi Wada
Initial component of sit-to-stand motor pattern is different from initial component of sit-to-walk motor

Dr Aftab Patla
The examination of the quantitative evaluation method of Body Tracking Test (BTT)

Dr Tomoe Yoshida
Evidence that corticospinal pathways facilitate ia presynaptic gating during stance to swing transition

Dr Cyril Schneider
Head in the Direction of the Flow

Ms Kristen Hollands


Poster Display: Falls in the Elderly

8:30am
The development of a validated falls risk screening assessment for use in general practice

Ms Anne Tiedemann
Characteristics of physical and psychological factors related to repeated falls in the elderly

Dr Michiko Yuki
Is dual task testing more sensitive to detect gait improvement after a balance training program?

Dr Kamiar Aminian
The effects of 24 weeks whole body vibration training on postural control in the elderly

Dr Sabine Verschueren
Individualised, graded, tailored exercise programs resulting from identification of specific physiological falls risk factors in community-dwellers aged 75+

Mrs Sally Castell
Can walking aids impede compensatory stepping?

Prof Brian Maki
Gait variability & fractal dynamics of older adults with high level gait disturbances

Jeffrey Hausdorff for Talia Herman
Attention Shifting Between Posture Control and Secondary Cognitive Task: Effects in Aging

Marjorie Woolacott for Joseph Siu
Acceleration patterns of the head and pelvis when walking are associated with risk of falling in community-dwelling older people

Dr Hylton Menz
Associations of age and falls risk with decision and movement components of choice stepping reaction

A/Prof Stephen Lord
A randomised controlled trial of weight-bearing versus non-weight-bearing exercise for improving physical ability after hip fracture and completion of usual care

Dr Catherine Sherrington

Poster Display: Foot and Ankle

Walking with the Masai Barefoot Technique

Ms Jacqueline Romkes
Poster Display: Gait and Gait Perturbation

Poster Leighton Hall 08:30 AM - 05:00 PM
Medial-lateral trunk perturbations during gait along a narrow walkway: influences of the lower field of vision and prior knowledge on foot placement modifications
Mr Stephen Hill
Why do we fail when approaching and stepping over an obstacle after vision was removed five steps before?
Mr Michael Greig
Corticospinal control of human gait and predictibility of environment: a TMS study
Mr Mickael Camus
Online Use of Environmental Information to Modify Adaptive Step
Mr Luiz Santos
Latencies of obstacle avoidance reactions
Mrs Vivian Weerdesteyn
Assessing the reliability of gait velocity
Dr Keith Rome
Instrumented shoes for pathological gait assessment
Mr Arnaud Faivre
Reliability of the gaitrite walkway system for the quantification of temporo-spatial parameters of gait in young and older people
Ms Marcella Mun San Kwan
Biomechanical characterization of walking in shallow water
Dr Marcos Duarte
The Effect of Lateral Arm Raises on Walking Balance
Dr Aftab Patla

Poster Display: Motor Development

Poster Leighton Hall 08:30 AM - 05:00 PM
Movement analysis of the functional reach test in children.
Clarissa Martin for Kate Carroll
Intra- and intersubject variability in gait analysis data in spastic children
Dr Yvonne Janssen-Potten
Balance in Young Ballet Dancers
Dr Dawne Larkin
Body Scheme and postural control in 14-15 year-old teenagers: a proprioceptive neglect hypothesis
Dr Marianne Vaugoyeau
Locomotor skills and balance strategies in children with internal rotations of the lower limbs
Dr Christine Assaiante

Poster Display: Multi-sensory integration

Poster Leighton Hall 08:30 AM - 05:00 PM
Can postural sway be predicted by ankle proprioception?
Ms Siu Fu
Man against gravity: the control of orientation and that of stabilisation are dissociated
Dr Dominic Perennou
Adaptation of Multi-joint Movements during Postural Disturbances
Prof Rolf Johansson
Effects of hypothermic anesthesia of the feet on vibration-induced body sway and adaptation.
Prof Måns Magnusson
Assessment of the accurate movement performance in patients with complex regional pain syndrome (Type I) before and after additional sympathetic activation
Dr Sasa Radovanovic

Poster Display: Neurological Disorders and Rehabilitation

Poster Leighton Hall 08:30 AM - 05:00 PM
A gait orthosis for paraplegics with a motor-driven hip joint
Dr Yuji Ohta
Balance training effects on recovery of stability in children with cerebral palsy: EMG.
Prof Marjorie Woollacott
Evaluation of efficacy nursing intervention to prevent patients with C.V.A. from falling into a bedridden

Dr Kayoko Kawahara
Kinematic model of the spine: study of paraplegic subjects

Dr Didier Pradon
Proprioceptive, Balance and Functional Deficits Across Acute, Subacute and Chronic Ankle Sprain

Mr Chich-Haung Richard Yang
Postural sway changes following proprioceptive neuromuscular facilitation

Dr Mark Goss-Sampson
Variable Practice to Facilitate Motor Learning for Countermeasures

Dr Helen Cohen
Effects of a treatment program on balance retraining in patients with cerebellar ataxia

Prof Ray-Yau Wang
Physiotherapy in the rehabilitation of stroke patients. Bobath or motor relearning program? A follow-up 1 and 4 years post-stroke. A randomised, controlled study

Ms Birgitta Langhammer
The effect of pseudomonas aeruginosa infection in rehabilitation and gait of patients with severe burn trauma

Dr Fariba Fayaz
Effects of ankle angle on dynamic knee stability during AFO use in brain injured and spinal cord injured patients

Dr Yvonne Janssen-Potten
Correlation between gait velocity and motor impairment in multiple sclerosis

Prof Philippe Thoumie
Movement time during transfer from sitting to standing and back to sitting in elderly people: comparison between demented and control subjects

Patrick Manckoundia for France Mourey
EMG-analysis of the leg muscles in hemiplegic children with and without hinged ankle-foot orthoses

Ms Jacqueline Romkes
Posturography as a screening test for primary orthostatic tremor

Prof Philippe Thoumie
Correlation between gait velocity and motor impairment in multiple sclerosis

Dr Ludmila Chernikova
Auditory timing modulation during gait in medicated and unmedicated Parkinson's disease

Prof Quincy Almeida
Cues to improve gait in parkinsons disease: too much information?

Ms Robyn Galletly
Effect of multiple tasks on gait in subjects with parkinson's disease: a functional test in the home

Dr Lynn Rochester
Ambulatory measurement of gait parameters in parkinson's disease: effect of subthalamic stimulation

Dr Kamiar Aminian
Quantification of trunk movements during turning in parkinson's disease (PD)

Mr Marten Munneke
**Poster Display: Postural Perturbation**

Poster Leighton Hall

- Postural stability under double-shot transient perturbations  
  *Mr Hisato Ohno*
- Power spectral analysis of postural and autonomic responses induced by roll visual motion  
  *Dr Mitsuhiro Aoki*
- The effect of temporal delayed sequences of roll to pitch perturbations on posture control  
  *Mr Christian Grüneberg*
- Analysis of changes in sensory feedback using imposed disturbances  
  *Prof Akimasa Ishida*
- Suboptimal Balance Strategy in Persons with Low Back Pain  
  *Ms Nicola Mok*
- Changes in control of eye movement and upper limb movement with automatization of postural control during platform oscillation  
  *Mr Hiroshi Toyama*
- Characteristics of protective stepping strategies in response to multi-directional pulling perturbations in healthy older adults and mild-to-moderate stroke patients  
  *Dr Pei-Fang Tang*
- Role of vision in control of upper-limb balancing reactions: is arm movement guided by a pre-formed spatial map?  
  *Prof Brian Maki*
- Effects of vibration on stance and equilibrium  
  *Joyce Fung for Cynthia Thompson*
- Ability to recover balance depends on base of support size  
  *Mr Quan Hong*
- Postural control enhancements through consolidation and adaptation  
  *Dr Fredrik Tjernström*

**Poster Display: Stroke**

Poster Leighton Hall

- Temporal disorganization of the step-test after stroke  
  *Dr Francine Malouin*
- Effects of proprioceptive neuromuscular facilitation on balance and mobility performance of individuals with chronic stroke: a preliminary report  
  *Mr Chao Lee*
- The effect of weight bearing on postural reflexes in stroke  
  *Mr Daniel Marigold*
- Does Exercise Involving Total Body Reciprocal Training Improve Gait & Balance in Chronic Stroke Survivors?  
  *Prof Denise Gobert*
- Pusher behaviour in stroke patients: head vs trunk dynamic orientation in roll  
  *Dr Dominic Perennou*

**Poster Display: Vestibular Function**

Poster Leighton Hall

- Can the N3 potential be evoked in normal subjects?  
  *Ms Sally Rosengren*
- Are asymmetric otolith vestibulo-ocular responses a predictive factor for idiopathic scoliosis in children?  
  *Dr Sylvette Wiener-Vacher*
- Postural and perceptual effects of galvanic vestibular stimulation while standing  
  *Dr Richard Fitzpatrick*
- On gaze direction and postural responses to galvanic vestibular stimulation  
  *Dr Richard Fitzpatrick*
- Neck muscle responses to abrupt gravitational change in human  
  *Dr Mitsuhiro Aoki*
- Effects of head pitch on the perception of rotation during galvanic vestibular stimulation  
  *Dr Brian Day*
- Effects of head pitch on the altered gait trajectory produced by galvanic vestibular stimulation
Dr Jane Butler
Changes in angular head position and primary afferent discharge induced by external galvanic vestibular stimulation (GVS) in the guinea pig

Mr Juno Kim
Bilateral lower limb responses evoked by unilateral vestibular stimulation in humans

Dr Jon Marsden
Velocity-dependent Importance of Vestibular Information for Postural Control on Tilting Surfaces

Ms JoAnn Kluzik
Anodal vestibular stimulation does not suppress vestibular reflexes in human subjects

Dr Ann Bacsi
Diagnostic significance of vestibular tests by galvanic stimulation

Dr Toshihisa Murofushi
Plenary 1

09:00 AM - 10:30 AM
Plenary The Scientia, Ritchie Theatre
9:00am The semicircular canal system and locomotor behaviour: a comparative and evolutionary perspective
Prof Fred Spoor
9:30am Electrical stimulation of the lumbar enlargement: a technique to induce stepping in paraplegic
Dr Elena Yu Shapkova
10:00am Robotics
Gordon Cheng

Basic Control Mechanisms 1

11:00 AM - 12:30 PM
Parallel Session The Scientia, Breakout 1
11:00am New protocol for Sit-to-Stand movement
Mr Demetrio Villanueva
11:15am Symmetry of ground reaction forces during rising to stand
Dr Wendy Gilleard
11:45am Looking around for eye-feet interaction
Dr Mark Hollands
12:00pm Perception-action coupling: passage through sliding doors
Mr Michael Cinelli

Parkinson's Disease 1

11:00 AM - 12:30 PM
Parallel Session The Scientia, Breakout 2
11:00am Sensorimotor and clinical factors in the prediction of future falls in Parkinson's Disease
Dr Graham Kerr
11:15am Falls and injuries in progressive supranuclear palsy (PSP)
Dr Bastiaan Bloem
11:30am Proprioception integration and postural orientation in Parkinson's disease
Dr Marianne Vaugoyeau
11:45am Improving cerebellar patients' eye movements improves their walking
Dr Dilwyn Marple-Horvat
12:00pm Multiple automatic postural adjustments prior to compensatory stepping in subjects with Parkinson's
Dr Marilee Stephens
12:15pm Effects of deep brain stimulation on postural control in Parkinson's disease
Dr Fay Horak

Motor Development

02:00 PM - 03:30 PM
Parallel Session The Scientia, Breakout 1
2:00pm Emergence of postural anticipation in babies coincides with acquisition of independent walking
Dr Christine Assaiante
2:15pm Postural Adjustments for the Control of Impact during Interceptive Action in Children
Ms Annieck Ricken
2:30pm Use of the Normalcy Index for assessment of gait abnormalities
Demetrio Villanueva for Marianna Romei
3:15pm The effect of dual-task demands on postural control in children with Developmental Coordination
Sandra Brauer for Leanne Johnston
Orthopaedics

Parallel Session    The Scientia, Breakout 2  02:00 PM - 03:30 PM
2:00pm  Presurgery knee joint loading patterns predict development of anterior knee pain after total knee
         Ms Anne Smith
2:15pm  Stabilisation of the knee joint during gait: implications for the development of knee osteoarthritis
         Ms Daina Sturmieks
2:30pm  Neuromuscular control in anterior cruciate ligament deficient and uninjured people
         Prof Thomas Buchanan
2:45pm  Voluntary activation failure of knee muscles in patients with acl deficiency and reconstruction
         Dr Shih-Fen Hsiao
3:00pm  A robust gait parameterization technique for hip arthroplasty outcome evaluation
         Dr Kamiar Aminian

Anticipatory Postural Control

Parallel Session    The Scientia, Breakout 1  04:00 PM - 05:30 PM
4:00pm  Anticipatory postural adjustments associated with grasping a distant object with forward stepping
         movements
         Prof Gantcho Gantchev
4:15pm  Motor cortex may be involved in feedforward postural responses of the deep trunk muscles
         Dr Paul Hodges
4:30pm  Relationship Between Motor Unit Activity of Medial and Lateral Vasti Muscles
         Ms Rebecca Mellor
4:45pm  Postural constraint on locomotion triggering during step initiation
         Dr Marie-Laure Mille
5:00pm  Linear + Angular Foot Nystagmus: A Novel Perspective on the Control of Curvature in the Trajectory of
         Forward Locomotion
         Prof Geoffrey Melvill-Jones
5:15pm  Postural sway-tremor interactions during quiet stance
         Dr Steven Morrison

Ageing and Balance

Parallel Session    The Scientia, Breakout 2  04:00 PM - 05:30 PM
4:00pm  Changes in postural stability in women aged 20 to 80 years
         Mrs Nancy Low Choy
4:15pm  Neuromuscular and behavioural influences on reaching performance in young and elderly women
         Mr Fabio Feldman
4:30pm  Mediolateral changes in postural stability with age when stepping
         Mr Kevin Sims
4:45pm  Altered balance and gait in elderly hypertensives: association between fractal index of gait and blood
         pressure
         Dr Jeffrey Hausdorff
4:00pm  Feedback and feedforward postural responses to continuous perturbations: age-related changes in
         balance control
         Ms Nicoleta Bugnariu
5:00pm  Dynamic Stability During Stair Descent in Older Adults
         Dr Kate Hamel
5:15pm  Anticipation of slippery floors and biomechanics of slips
         Dr Rakié Cham
### Tuesday, 25 March 2003

#### Plenary 2 - Clinical

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>8:30am</td>
<td>Diagnosis and management of patients with Parkinson's disease</td>
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<td></td>
<td><em>Dr Bastiaan Bloem</em></td>
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<tr>
<td>9:00am</td>
<td>Clinical diagnosis and management of patients with vestibular disorders</td>
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<td><em>Michael Halmagyi</em></td>
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<tr>
<td>10:00am</td>
<td>Effects of surgical interventions in patients with Parkinson's disease</td>
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<td><em>Prof Philip Thompson</em></td>
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#### Vestibular Function

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<tbody>
<tr>
<td>10:30am</td>
<td>Galvanic vestibular stimulation alters elbow proprioception</td>
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<td><em>Ms Joanna Knox</em></td>
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<tr>
<td>11:00am</td>
<td>Idiosyncrasy of the subjective visual horizontal/vertical after unilateral vestibular deafferentation</td>
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<td><em>Dr Anna Hafstrom</em></td>
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<tr>
<td>11:15am</td>
<td>Head and eye movements during turning and centrifugation</td>
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<td><em>Dr Steven Moore</em></td>
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<tr>
<td>11:30am</td>
<td>Vestibular activation by bone conducted sound</td>
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<td><em>Dr Miriam Welgampola</em></td>
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<tr>
<td>11:45am</td>
<td>Vestibular Screening Tests</td>
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<td><em>Ms Rebecca St George</em></td>
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<tr>
<td>12:00pm</td>
<td>When is vestibular information important during walking?</td>
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<td><em>Dr Leah Bent</em></td>
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<tr>
<td>12:15pm</td>
<td>Gait Ataxia and Balance Improve After Vestibular Rehabilitation</td>
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<td><em>Dr Helen Cohen</em></td>
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#### Parkinson's Disease 2

<table>
<thead>
<tr>
<th>Time</th>
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<tbody>
<tr>
<td>10:30am</td>
<td>The Stochastic Structure of Postural Sway in Parkinson's Disease</td>
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<td><em>Dr John Jeka</em></td>
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<td>10:45am</td>
<td>Training effect of audio-visual cues on sit-to-stand in patients with Parkinson's disease</td>
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<td><em>Dr Margaret Mak</em></td>
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<tr>
<td>11:00am</td>
<td>Acceleration patterns of the head and pelvis in people with Parkinson's disease</td>
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<td><em>Dr Mark Latt</em></td>
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<tr>
<td>11:15am</td>
<td>Changes in muscular activity at the onset of freezing in patients with Parkinson's disease</td>
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<td><em>Dr Alice Nieuwboer</em></td>
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<tr>
<td>11:30am</td>
<td>The effects of visual cues on gait on the biomechanics and motor control of gait in Parkinson’s disease</td>
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<td><em>Prof Meg Morris</em></td>
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<tr>
<td>11:45am</td>
<td>Relative contributions of visual and proprioceptive inputs during locomotion towards a target in Parkinson’s disease</td>
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<td><em>Prof Quincy Almeida</em></td>
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<tr>
<td>12:00pm</td>
<td>Hysteresis effects of systematic speed manipulations on stride parameters in Parkinson patients</td>
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<td><em>Dr Erwin van Wegen</em></td>
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Wednesday, 26 March 2003

Plenary 3 - Falls in the Elderly

**Plenary**
The Scientia, Ritchie Theatre
08:30 AM - 10:00 AM

- 8:30am Reducing falls: from epidemiology and impaired function to prevention trials
  Prof John Campbell
- 9:00am Physiological risk factors for falls
  A/Prof Stephen Lord
- 10:00am Balance confidence modifies postural control
  Prof Jim Frank

**Gait and Gait Pertubation**

**Parallel Session** The Scientia, Breakout 1
10:30 AM - 12:30 PM

- 10:30am The Development and Accuracy of Portable Motion Sensors
  Dr Jan Jasiewicz
- 10:45am Pre-planned online turns: relationships between the pelvis and the inner foot
  Ms Frances Huxham
- 11:00am Strategy of dividing attention between between walking and different cognitive tasks in healthy young
  Ms Veronique Dubost
- 11:15am Dynamic index of control of equilibrium during gait (D.I.C.E)
  Dr Manh Cuong Do
- 11:30am Adaptation of gait in elderly women after sudden reduction of environmental lighting
  Dr Rolf Moe-Nilssen
- 12:00pm The Influence of Cadence on Locomotor Adaptation to the Rotating Circular Treadmill
  Dr Gammon Earhart
- 12:15pm Age-related decline of gait control under a dual-task condition
  Ms Veronique Dubost

**Falls in the Elderly**

**Parallel Session** The Scientia, Breakout 2
10:30 AM - 12:30 PM

- 10:30am Psychological Factors Associated with Falls in Community-Residing Older Adults
  Prof Debra Rose
- 10:45am Reduced hip extensor strength and increased weight are associated with falling in healthy elderly women
  Ms Nicole Quinn
- 11:00am Physical frailty and avoidance of activities
  Ms Kim Delbaere
- 11:15am Predictors of falls: bivariate and multivariate analyses
  Prof Astrid Bergland
- 11:30am Resolving conflicts in task demands during balance recovery: does holding an object inhibit compensatory grasping?
  Prof Brian Maki
- 11:45am Sensory-challenge balance exercises improve performance on multisensory reweighting and clinical balance measures in the fall-prone elderly
  John Jeka for Leslie Allison
- 12:00pm Strength or agility training significantly reduces fall risk compared to posture training in 75 to 85 year old women with low bone density: a six month RCT
  Ms Teresa Liu-Ambrose
- 12:15pm Comparison of two types of exercise regimes on selected functional abilities for community-dwelling elderly at risk of falling
  Ms Jorunn Helbostad

**Multi-Sensory Integration**

**Parallel Session** The Scientia, Breakout 1
01:30 PM - 03:00 PM

- 1:30pm Co-existing Multicomponent Postural Coordination Patterns
  Dr John Jeka
- 1:45pm Postural control shifts with sensory discordance
  Dr Emily Keshner
2:00pm  Coordination of gaze and body movements during simultaneous horizontal gaze shift and yaw surface perturbation
   *Ms Caroline Paquette*

2:15pm  Effects of optical blur on postural stability
   *Dr Graham Kerr*

2:30pm  Vibration to the posterior neck evokes fast EMG responses of the lower leg, but mastoid vibration does not
   *Prof Måns Magnusson*

2:45pm  Multisensory reweighting in the fall-prone elderly: Comparison to healthy young and older adults
   *John Jeka for Leslie Allison*

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**Stroke**

**Parallel Session: The Scientia, Breakout 2**

01:30 PM - 03:00 PM

1:30pm  Effects of CNS lesions on Balance during Standing and Walking
   *Dr Joyce Fung*

1:45pm  Verticality perception in pusher patients: ipsi or contralateral bias?
   *Dr Dominic Perennou*

2:00pm  Limb Position Sense Altered During Locomotion Post Stroke
   *Prof David Brown*

2:15pm  Electromyographic and kinematic characteristics of obstacle avoidance in stroke patients
   *Mr Rob den Otter*

2:30pm  Lead and trail limb control during obstacle crossing following stroke
   *Dr Catherine Said*

2:45pm  Strategies to improve walking following stroke
   *Dr Anouk Lamontagne*

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**Basic Control Mechanisms 2**

**Parallel Session: The Scientia, Breakout 1**

03:30 PM - 05:00 PM

3:30pm  EMG Analysis of A/P Balance During Quiet Standing
   *Prof David Winter*

3:45pm  Participation of cholinergic system of neostriatum in regulation of posture adjustment in dogs
   *Prof Ksenia Shapovalova*

4:00pm  Multiple and parallel CNS mechanisms involved in the elaboration of bipedal locomotion by M.
   *Dr Futoshi Mori*

4:15pm  The Influence of Eye Movements on Postural Sway
   *Mr Erich Schneider*

4:45pm  Coordination of muscle activity during walking in cat and man
   *Prof Jens Bo Nielsen*

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**Neurological Disorders & Rehabilitation**

**Parallel Session: The Scientia, Breakout 2**

03:30 PM - 05:00 PM

3:30pm  Cognitive and gait evaluation in normal pressure hydrocephalus: Evaluation before and after ventriculoperitoneal shunt and comparison to parkinsonian gait
   *Prof Jean-Philippe Azulay*

3:45pm  Pathological gait in patients with acoustic neuroma
   *Prof Kazuo Ishikawa*

4:00pm  Gait abnormalities in people recently diagnosed with multiple sclerosis
   *Ms Clarissa Martin*

4:15pm  Correlates with poor dual task performance in acquired brain injury
   *Dr Sandra Brauer*

4:30pm  Differential Improvements in Joint Position Sense After Balance Training
   *Dr David Lloyd*

4:45pm  Ambulatory system for gait and posture analysis: validation in chronic pain patients treated by spinal cord stimulation
   *Dr Kamiar Aminian*

5:00pm  Learning different postural tasks in patients with poststroke hemiparesis, cerebellar ataxia and parkinson's disease
   *Dr Marat Ioffe*
Thursday, 27 March 2003

**Postural Perturbation**

**Parallel Session**  The Scientia, Breakout 1  09:00 AM - 11:00 AM

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<th>Time</th>
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<tr>
<td>9:00am</td>
<td>Ankle stiffness and human balance during upright standing</td>
<td>Dr Alexei Alexandrov</td>
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<tr>
<td>9:15am</td>
<td>Effects of postural disturbances with fatigued triceps surae muscles or with 20% additional body weight</td>
<td>Mans Magnusson for Torbjorn Ledin</td>
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<tr>
<td>9:30am</td>
<td>Thresholds for inducing protective stepping responses for the control of human balance</td>
<td>Dr Mark Rogers</td>
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<td>9:45am</td>
<td>Role of vision and visual attention in the control of rapid stepping reactions triggered by postural</td>
<td>Prof Brian Maki</td>
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<td>10:00am</td>
<td>Design of optimal perturbation signals for investigating human postural dynamics</td>
<td>Dr Stella Donker</td>
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<tr>
<td>10:15am</td>
<td>Strategies for avoiding hip impact during sideways falls</td>
<td>Prof Stephen Robinovitch</td>
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<tr>
<td>10:30am</td>
<td>Gaze direction influences postural control of the neck</td>
<td>Dr Michel Coppieters</td>
</tr>
<tr>
<td>10:45am</td>
<td>Visual and platform perturbations produce out of plane postural reactions</td>
<td>Dr Emily Keshner</td>
</tr>
</tbody>
</table>

**Foot and Ankle**

**Parallel Session**  The Scientia, Breakout 2  09:00 AM - 11:00 AM

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Presenter</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00am</td>
<td>Control of the flat versus normal foot during walking</td>
<td>Dr Adrienne Hunt</td>
</tr>
<tr>
<td>9:15am</td>
<td>The evaluation of flat foot and gait analysis patterns of patients with down syndrome</td>
<td>Demetrio Villanueva for Manuela Galli</td>
</tr>
<tr>
<td>9:30am</td>
<td>Effects of manual manipulations of the ankle and foot on quiet stance in young and elderly females</td>
<td>Dr Mark Goss-Sampson</td>
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<tr>
<td>9:45am</td>
<td>The Effect of an Accommodative Foot Orthoses on Balance Parameters – pilot study</td>
<td>Dr Keith Rome</td>
</tr>
<tr>
<td>10:00am</td>
<td>The variation of dynamic foot pressure with gait parameter</td>
<td>Mr Yat Chau Law</td>
</tr>
<tr>
<td>10:15am</td>
<td>Force distribution beneath the foot when traversing a sideslope</td>
<td>Dr Stephen Urry</td>
</tr>
<tr>
<td>10:30am</td>
<td>Effects of experimentally - induced plantar insensitivity on forces and pressures under the foot during normal walking.</td>
<td>Ms Mandy Taylor</td>
</tr>
<tr>
<td>10:45am</td>
<td>Ground reaction forces associated with plantar callus formation</td>
<td>Dr Kate Springett</td>
</tr>
</tbody>
</table>

**The Debate**

**Plenary**  The Scientia, Ritchie Theatre  11:30 AM - 12:30 PM