

# 9TH GAIT AND BRAIN SEMINAR SERIES IN CONJUNCTION WITH THE CENTRE FOR COGNITIVE VITALITY AND BRAIN HEALTH GRAND ROUNDS

Tuesday, October 6, 2015

St. Joseph's Health Care London  
Parkwood Institute, Mental Health Building Auditorium, Room F2-235

## Role of Cholinergic Therapy to Improve Mobility and Reduce Falls in Parkinson's Disease: Implications for Older Adults



### Guest Speaker

Dr. Nicolaas Bohnen, PhD

Dr. Nicolaas Bohnen, PhD, is Professor of Radiology and Neurology at the University of Michigan. He attended medical school in the Netherlands where he completed his PhD in neuropsychology. He completed residency training in neurology at the Mayo Clinic in Minnesota, and nuclear medicine at the University of Michigan, where he also completed a fellowship in movement disorders. He holds clinical appointments in the Departments

of Radiology and Neurology at the University of Michigan and the VA Ann Arbor Healthcare System where he directs the movement disorders clinic. He is the Director of the University of Michigan Functional Neuroimaging, Cognitive and Mobility Laboratory where his clinical and PET imaging research has a focus on neurobiological correlates of mobility and cognition in normal aging and Parkinson's disease (PD). His research is funded by grants from the NIH, the Department of Veterans Affairs and the Michael J. Fox Foundation.

The dopaminergic model of PD has fueled a very successful therapeutic paradigm. Postural instability and gait difficulties (PIGD), however, are least responsive to dopaminergic therapy and represent an unmet clinical need in PD. In his talk, Bohnen will present results suggesting that emergence of PIGD symptoms may represent a critical transition in PD from a predominant nigrostriatal dopaminergic to a multisystem degeneration syndrome. He will also review neuroimaging studies showing that non-dopaminergic degenerations, including loss of cholinergic neurons, may significantly contribute to mobility problems in PD. Moreover, he will discuss that PIGD severity significantly worsens with older age in PD. The interaction between neurodegeneration and aging will have therapeutic implications for the management of mobility problems not only in PD but also in non-PD elderly. Bohnen will review pharmacotherapeutic strategies focusing on the cholinergic system and its co-transmitters, such as GABA, to manage mobility and falls.

## AGENDA

2:45 P.M.

Greetings by Dr. Manuel  
Montero-Odasso, MD, PhD

3:00 P.M.

Lecture by Dr. Nicolaas  
Bohnen, PhD

4:00 P.M.

Question & Answer

4:20 P.M.

Evaluations

# 9TH GAIT AND BRAIN SEMINAR SERIES

## IN CONJUNCTION WITH THE CENTRE FOR COGNITIVE VITALITY AND BRAIN HEALTH GRAND ROUNDS

Tuesday, October 6, 2015

St. Joseph's Health Care London  
Parkwood Institute, Mental Health Building Auditorium, Room F2-235

### LEARNING OBJECTIVES

Upon completion of this activity, the participant will be able to:

1. Learn about the multi-system neurodegenerative, including cholinergic changes, underlying mobility impairments in patients with Parkinson's disease (PD)
2. Become familiar with the interaction between neurodegeneration and aging and mobility changes in PD
3. Understand pharmacotherapeutic strategies focusing on the cholinergic system and its co-transmitters, such as GABA, to manage mobility disturbances and falls not only in PD disease but also non-PD elderly

### SPONSOR

The Division of Geriatric Medicine, Department of Medicine, at the Schulich School of Medicine & Dentistry, Western University.

### ACKNOWLEDGEMENTS

This program has been made possible through educational grants from ProtoKinetics Gait Analysis Walkways and the F.J.H. Campbell lectureship fund.

### STUDY CREDITS

This event is an Accredited Group Learning Activity (Section 1) as defined by the Maintenance of Certification program of The Royal College of Physicians and Surgeons of Canada, and approved by Continuing Professional Development, Schulich School of Medicine & Dentistry, Western University (hours).

Each participant should claim only those hours of credit that he/she actually spent participating in the educational program.

### RSVP

Seating is limited. Please RSVP to Tracy Cooper:  
**Email:** [tracy.cooper@sjhc.london.on.ca](mailto:tracy.cooper@sjhc.london.on.ca)  
**Phone:** 519.685.4292 ext. 45024

**The Gait and Brain Seminar Series is a no-cost event.**

### VIDEOCONFERENCING AVAILABLE

#### OTN Event #47094722

Ensure your OTN equipment is up and running by 2:30 p.m. If you connect after 2:30 p.m. call OTN at 1.866.454.6861 and have your event site number, I.D. and camera number available.

**Webcast Link:** If you would like to participate via webcast, please email [tracy.cooper@sjhc.london.on.ca](mailto:tracy.cooper@sjhc.london.on.ca) and we will send you the link closer to the event.