Workshop on
The Use of Virtual Reality Technology in Rehabilitation

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Date: 30.08.2005  •  Time: 2:00-6:00pm  •  Venue: Rm ST522/523
Duration: 4 hours  •  Tuition fee: $200

Background:
Virtual reality (VR) technology with the capacity of simulating environments offers a new and safe way to not only increase practice time but also to offer the varied environments and constraints needed to maximize learning. Moreover, VR refers to a range of computing technologies that present artificially generated sensory information (from vision and proprioception) in a form that people perceive as similar to real-world objects and events.

Aim:
This workshop will provide an overview of existing VR technology that is potentially applicable to rehabilitation. The focus will be on the development and implementation of VR for the assessment and retraining of balance and locomotion in Quebec, Canada, and the research evidence that supports its use in the aging and neurological patient population.

Contents:
1. Introduction to principle and history of virtual reality technology
2. Recent investigations on
   - Influence of optic flow on speed and heading control of locomotion due to aging
   - Influence of optic flow on speed and heading control of locomotion following stroke
   - The efficacy of VR for gait retraining after stroke
3. Clinical applications of virtual reality and demonstrations

Brief Biographical Sketch:
Dr. Joyce Fung was a physical therapist who graduated from the Hong Kong Polytechnic in 1982. She received a PhD in Rehabilitation Science from McGill University in 1992. She was a postdoctoral research fellow at the Neurological Sciences Institute of the Oregon Health Sciences University from 1992 to 1995. She became a faculty member of the School of Physical and Occupational Therapy at McGill University since 1995 and established a posture and gait research laboratory at the Jewish Rehabilitation Hospital (JRH). She is also an adjunct professor of the Faculty of Allied Health at the University of Vermont. She is the scientific director of research at the JRH since 1998. She holds a William Dawson Research Chair from McGill University and a senior chercheur-boursier from the Fonds de Recherche en Santé du Québec (FRSQ). Her research is supported by the Canadian Institutes of Health Research (CIHR), the Canada Foundation for Innovation (CFI), and the Canadian Stroke Network (CSN).

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