Advances in Motor Control Research: Implications for Rehabilitation

*Evidence-based treatment for children with cerebral palsy*

**COURSE DESCRIPTION**

This 1-day course, designed for clinicians and scientists, will focus on recent advances in motor control and motor learning research in children and adolescents with cerebral palsy (CP). Scientific evidence will be presented and discussed with an emphasis on the implications and application of these insights for clinical practice. Recent findings from studies that make use of novel interventions such as motor imagery, implicit learning, action observation and the stages of motor learning will be highlighted. Examples from current clinical trials, will also address key components of treatment protocols that are likely to influence and facilitate change in clinical practice. The course provides a unique opportunity to update clinicians on the latest advances in motor control and learning research in CP and its current use in clinical practice.

Detailed course notes and electronic reference material will be provided.

**COURSE OBJECTIVES**

Upon completion of this course, participants will have:

- The latest knowledge on motor control and learning research in children with CP.
- The latest knowledge on motor planning, motor imagery, stages of learning and observation research in children with CP.
- Understanding of the clinical implications and the state of evidence of recent research findings in CP.
- Knowledge of the strengths and weaknesses of current therapeutic approaches to improve upper limb and gross motor function in CP.
- Practical guidance and resources for the implementation of motor learning based therapy in clinical practice.
- Knowledge of the future challenges to advance understanding of motor control.

**INSTRUCTORS**

Professor Bert Steenbergen (Behavioural Science Institute of the Radboud University, Nijmegen, The Netherlands)
Rachel Toovey (Physiotherapist and researcher; University of Melbourne, Murdoch Children’s Research Institute, Monash Children’s Hospital)

**WHO SHOULD ATTEND**

Occupational therapists, Physiotherapists, Scientists/researchers, Exercise physiologists, Students