UNIVERSITY OF Southampton

Institute for Life Sciences & Health Sciences Seminar

Dr. George F. Wittenberg
University of Maryland

Date: 20 March 2015, 12:00 – 14:00
Venue: Building 67, Room 1003

"Reaching, Robots, and Rehabilitation; Brain Activity and the Effects of Practice"

Abstract: Our research has demonstrated that reaching practice alters the cortical representation of movement accessible by transcranial magnetic stimulation (TMS). TMS evokes reach-like movements that can be measured with a rehabilitation robot. These movements tend to cluster within a quadrant of space and are stable. But practice of movements in the opposite quadrant results in changes in TMS-evoked movements that last for several minutes. When TMS is combined with reaching practice, there are additionally changes in the strength of TMS-evoked muscle activation. These changes have a strong dependence on the time of stimulation. The implication for rehabilitation practice is that priming activity may need to occur before movement has started.

Target audience: Rehabilitation, Neuroscience, Engineering / Health Technologies, Clinicians, Therapists and Neurologists.
Register attendance via http://tinyurl.com/qboovr7

Seminar starts at 12:00, a buffet lunch will be available after 13:00