



The Chinese University of Hong Kong



Department of Biomedical Engineering

Time: 2:30pm, 10 August 2023 (Thursday)

Venue: ERB1122, William M.W. Mong Engineering Building

Personalized non-invasive neurotechnology-based treatment strategies for stroke recovery



Professor Hummel Friedhelm Christoph

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Abstract

Stroke is one of the main causes of long-term disability. Neurorehabilitative approaches for stroke patients are still not satisfactory leaving more than 3/4 of the patients with long-term disabilities. Neurotechnology, especially non-invasive neurotechnology applied in a personalized to the individual patient might have the potential to significantly enhance recovery from a stroke.

In the present seminar, I will present neurotechnology based approaches to enhance upper extremity functions in stroke patients and discuss them critically in the light of current literature and provide an outlook of novel, promising approaches with high potential for clinical translation.

Biography

Prof. Friedhelm Hummel, MD, is a trained neurologist and systems translational neuroscientist focused on neuroengineering.

Since September 2016, he is appointed Full-Professor at the EPFL, Director of the Defitech Chair of Clinical Neuroengineering in the Neuro-X (INX) and Brain Mind Institute (BMI), and Adjunct Professor at the University Hospital Geneva (HUG). Before joining EPFL, he was Vice-Director of the Dept. of Neurology and Head of BINS laboratory, University Medical Center Hamburg, Germany and did a postdoc at the NINDS at the NIH, US.

His scientific interests are in the development of neurotechnology based on non-invasive brain stimulation to enhance human behavior with a strong clinical translational focus. He pioneered the application of transcranial electric current stimulation to enhance stroke recovery. His current focus is on establishing brain stimulation methods for non-invasive deep brain stimulation in humans and on brain network analyses to predict outcome and treatment response of neurological patients towards personalization.

*** ALL ARE WELCOME ***

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