

Talk on Tuesday, 30. Jan 2024

in HS 424

Start: 10:15 (till 11.30)

The talk will be presented in English

Motor Imagery in Older Adults: from Mental Simulation to Mental Stimulation of Movements

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Motor imagery (MI) refers to the *mental simulation* of motor actions without actual physical output. Numerous investigations have provided evidence that MI positively influences motor learning and recovery across various populations, thus providing a *mental stimulation* of movements. While inter-individual variability is high, overall MI ability remains relatively preserved until around 80 years, and some studies have shown that MI contributes to improve motor performance in older adults. After having familiarized

you with MI, I will summarize some work on MI ability in the elderly, then present in more detail recent studies conducted in our laboratory on the learning of movement sequences by MI in this population. I will focus on different ways to improve the efficiency of MI in motor learning, notably by combining MI and physical practice and by performing several consecutive training sessions. Finally, I will quickly present results showing a positive impact of sleep on the consolidation of motor learning by MI in young adults, to introduce you to the ANR-FWF project SMILES "Effects of sleep on motor sequence learning by motor imagery in young and older adults" conducted in collaboration with Pr. Kerstin Hödlmoser.

Invited by: Kerstin Hödlmoser