



## FUNDED PROJECTS

**COGSTROKE \\ COGNITIVE RECOVERY AFTER STROKE. TRANSLATIONAL APPROACH TO NEW THERAPIES OF HIGHER MOTOR DEFICITS.**

Austria \ Canada \ Finland \ France \ Germany \ Italy \ Israel \ Luxemburg \ Poland \ Romania \ Spain

Stroke is a major cause of chronic motor disability in humans. The human brain has a remarkable capacity to reorganize in response to such injury, yet the complex mechanisms underlying recovery are still not well understood and evidence based standards for the rehabilitation of motor or cognitive-motor functions after stroke are not well established. The aim of the present project is to translate, test and optimize laboratory protocols into effective treatment protocols for the recovery from motor deficits after stroke respectively to bring together experimental and clinical research on neural and behavioural aspects of motor learning and motor skill re-learning in healthy older adults (the age group in which stroke is a major concern) and in stroke patients with limb apraxia.

Our translational, transnational project COGSTROKE is expected to result in innovative and ecologically valid therapeutic training programs for both healthy older adults and stroke patients with limb apraxia by incorporating multiple parameters and procedures. Especially, this will be the first project to prove the impact of sleep on motor skill learning in healthy elderly and stroke patients with limb apraxia. COGSTROKE will also provide new insights into the learning mechanisms of the elderly brain and contribute to the understanding of motor system reorganization after stroke.

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