Contact

Our study team will be happy to answer your questions and provide you with further information about the study. If you are interested, **please contact us!**

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Principal Investigator
Prof. Dr. Friedhelm Christoph Hummel

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Ethics authorization: 2019-00094

Where to find us

Clinical trial:
Avancer project

Principal investigator:
Prof. Dr. Friedhelm C. Hummel

Site in Sion:
EPFL, Clinique Romande de Réadaptation
Av. Grand Champsec 90
CH – 1950 Sion

Site in Geneva:
EPFL, Campus Biotech
Chemin de Mines 9
CH – 1202 Geneva

EPFL campus biotech Clinique romande de réadaptation

EPFL campus biotech Clinique romande de réadaptation

AVANCER

Participate in our stroke study!

Personalized upper limb neuro-rehabilitation technology for people with chronic stroke

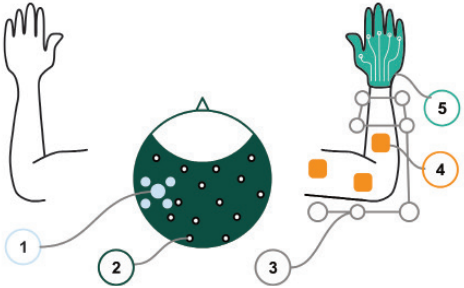
Research invitation

Neurotechnology-based intervention for upper limb motor rehabilitation

In this study, we investigate the effect of a novel therapy combining neuro-technologies for upper-limb motor recovery in chronic stroke patients.

The following techniques will be used:

- Electroencephalogram (EEG, (2)) recording
- Hand robotics and arm support ((3), (5))
- Functional Electrical Stimulation to activate muscles ((4))
- Non-invasive transcranial Direct Durrent Stimulation (tDCS, (1))



Key points

- Two study sites: Campus Biotech, Geneva and Campus SUVA, Sion
- The study will have a duration of approximately 2 to 6 months with 2-3 sessions per week
- One session lasts 1.5-2.5 hours

Study follow-up path

The study includes 3 types of visits:

- **3 evaluation visits:** Clinical tests, questionnaires, Magnetic Resonance Imaging (MRI), and Transcranial Magnetic Stimulation plus Electroencephalogram (TMS-EEG)
- **The intervention visits:** Neurotechnology-based therapy (see picture), and non-invasive tDCS will be added according to your motor improvement
- **1 Follow-up visit:** Clinical tests, and questionnaires

An opportunity

for people affected by chronic stroke

You might be eligible for study participation if you:

- Experienced a first-ever stroke at least 6 months ago
- Are aged 18 years or older
- Have severe motor impairments and/or cannot extend your fingers
- Do not have other neurological diseases (e.g. Parkinson, epilepsy, Alzheimer)
- Have no active implants (e.g. pacemaker)

Additional information

There are no direct benefits from participating in this clinical trial. You may notice an improvement in motor activities of your upper limb. There is no financial compensation for study participation. However, all travel fees related to the study visits will be reimbursed. The information you may communicate to our research team by phone will be registered and treated strictly confidentially.