

Recruitment notice for healthy subjects

Synchronized Electrical and Magnetic stimulation in the treatment of patients with Spinal cord injuries.

Researcher: Dr. Sabin Sathyan, DSc. (Tech), sabin.sathyan@aalto.fi, phone: 0406628668

Supervisors: Dr. Anastasia Shulga (anastasia.shulga@helsinki.fi)

Dr. Pantelis Lioumis (plioumis@gmail.com)

Research organization: BioMag laboratory, HUS Helsinki University Hospital, Helsinki, in collaboration with Research group of Electromechanics, ELEC, Aalto University.

Our group is investigating the interaction between transcranial magnetic stimulation (TMS) and electrical stimulation (PNS) in the rehabilitation of spinal cord injury patients. These two stimulation methods are non-intrusive, long-established, and found to be safe. The combination of TMS and PNS has already been found to be an effective method that promotes the rehabilitation of those with partial spinal cord injury.

In our study, healthy individuals are given stimulation on individual occasions to measure hand or foot responses to transcranial magnetic stimulation. This makes it possible to study the effect of stimulation on the nerve pathways. The effects of individual stimulus on the nerve pathways are always transient.

The PNS may feel a little uncomfortable, and if desired, the skin may be anesthetized prior to stimulation with lidocaine ointment (EMLA). TMS is usually well tolerated, but a small percentage of subjects may find it uncomfortable. The subjects participating in the study may withdraw from the study at any time, if necessary, also during the stimulation. Depending on the study, stimulation may last 10-30 minutes, and a single study with preparations and measurements takes 1-3 hours.

By participating, you can promote research that aims to improve the quality of life of patients paralyzed for a variety of reasons. A reasonable fee will be paid for participation according to the length. By participating, you can also learn more about non-intrusive stimulation techniques.

COVID-19 attention!

We closely follow the instructions given by HUS and health authorities regarding the pandemic and as needed. We will update instructions for test subjects. You should not visit the hospital if you have any symptoms of a respiratory infection (for example, cough, sore throat, fever, shortness of breath, runny nose, muscle aches or headache). The visitors are required to use a surgical mouth-nose guard while on HUS premises and a hand sanitizer for the hospital, ward, and when entering and leaving the patient room or other premises.