

Master thesis opportunity

ExerG: Exergame training in the elderly – a usability investigation

Background:

The World Health Organization's 'Global report on falls prevention in older age' (2007) shows that around 28-35% of people aged 65 years and over fall each year. Falls can lead to long-term health, psychological and social consequences and substantially increase health care costs. Systematic reviews demonstrated that specific physical and cognitive exercises significantly improve walking and postural control and thus reduce fall rates in older people with and without disabilities. An up-coming training approach that seems to have the potential to face the above-mentioned challenges in older adults are so-called exergames. Exergames can be used in various application fields (e.g., rehabilitation and prevention) and target populations due to the broad range of design possibilities. In an EU-funded project, the existing exergame environment, the ExerCube (<https://sphery.ch>), is to be adapted for older people in rehabilitation.

Aim and tasks:

This sub-project aims to implement a usability study with the newly developed ExerG device. The successful candidate will conduct the usability study that includes the whole study circle: patient and participant recruitment, assessment, training, data analyses and report writing.

Requirements:

- Interest in gaining a deeper knowledge of exergames in the context of rehabilitation
- Friendly and courteous treatment of patients and other study participants
- Proficiency in use of MS Office
- Knowledge of Good Clinical Practice principles in research
- Basic knowledge of data analyses with appropriate software
- Highly motivated and team-oriented working morale

Offer:

- Introduction and supervision throughout the entire project
- Participation in an research project with international partners from Switzerland, Austria, and Canada
- Approved ethics application
- Exciting opportunities in an interdisciplinary environment of clinical research and rehabilitation
- Possibility to visit various departments involved in rehabilitation of neurologic and orthopaedic patients.

Time period:

Begin spring 2023. Duration: 6 to 9 months.

For further questions, please contact Dr. C. Schuster-Amft, Research Department, Reha Rheinfelden (c.schuster@reha-rhf.ch). To view other opportunities at our department, go to: <https://www.reha-rheinfelden.ch/ueber-uns/wissenschaft/>