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**Postdoctoral Position, University of Saint-Etienne and St-Etienne University Hospital, France**

A renewable 1-year fully funded Postdoctoral position is available at the University Jean Monnet in Saint-Etienne (France) under the supervision of Prof Guillaume MILLET and Prof Jean-Philippe CAMDESSANCHE.

Applicants should have (or anticipate having) a Ph.D. and strong research background in exercise physiology and neurophysiology. A clinical experience will be valued, especially if it involved adult neurologic populations. Applicants should also possess strong interpersonal skills, a good contact with patients and be able to work independently with minimal supervision. The postdoctoral fellow will be responsible for (i) testing patients before and after the training intervention in the laboratory and (ii) supervising training intervention both on site and remote. The position also requires to work in collaboration with engineers and clinicians. The most successful applicants will have a demonstrated interest in pursuing publication and grant opportunities. The successful applicant will become part of a unique training and research environment within the multidisciplinary Inter-university Laboratory of Human Movement (LIBM).

There are no citizenship restrictions. Speaking French is not mandatory but will be considered as an asset and the candidate must be willing to learn French. A driving license is mandatory. Applications should include a cover letter discussing your interest in the position and stating the date when you expect to be available, CV, and the names and contact information of two academic references.

Application deadline: will remain open until filled - Tentative start date: November 1st, 2022

**PROJECT SUMMARY**

Chronic fatigue is the most common and debilitating symptom in patients with multiple sclerosis (PwMS). Recently, it has been proven that physical activity alleviates chronic fatigue, and improves muscular, cardiorespiratory, and cognitive functions. Nevertheless, the effects of physical exercise may vary between PwMS. Due to the pandemic COVID-19, physical activity at home has increased in the general population, but the lack of supervision and knowledge of patients limits their capacity to exercise appropriately and to persevere in the long run.

The main objective of this project is to characterise the benefits of a tailored exercise intervention compared to the benefits of a traditional exercise intervention with regards to reducing perceived fatigue and improving quality of life of PwMS declaring perceived fatigue. The second objective is to compare the feasibility, adherence to and effectiveness of these two training programs, conducted either at home with the help of a dedicated application or in the laboratory under supervision.

PwMS with a high level of perceived fatigue will be randomly assigned to one of the following 4 groups: (1) traditional and (2) individualized exercises performed in the laboratory, (3) traditional and (4) individualized exercises performed at home. The two traditional groups will perform aerobic and resistance exercises consistent with the exercise guidelines for PwMS. The two individualized groups will perform a program designed to address identified individual disabilities. Participants will be evaluated before and after the procedures using subjective and objective tests.

We aim to demonstrate that (i) physical activity intervention tailored to fatigue etiology is more efficient than following general guidelines and (ii) an innovative web-based program can be as efficient as the in-person training. From the present application, we will propose simple tests and recommendations to help the clinicians improve the care and rehabilitation of PwMS i.e. to favor individualised intervention in order to minimize fatigue and better improve quality of life.

**Contact**

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