**Scientific Research NMSC: running study**

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| **Title study** | Walking-related fatigability in persons with multiple sclerosis: Psychometric properties of cognitive and coordination fatigability assessment & proof-of-concept of a rehabilitation intervention |
| **Acronym** (if applicable) |  |
| **Aim of the study** | 1. To examine the psychometric properties (discriminative validity, reliability) of a new measurement method of interlimb coordination using a bipedal coordination task, and of cognitive fatigability.
2. To investigate the effect of an eight-week choreo-based dance intervention compared to an active sham intervention on fatigability and fatigue.
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| **Summary / abstract** (max 200 words)(inclusion/exclusion criteria, intervention(s), outcomes) | Part A is a case-controlled observational study and consists of 2 test sessions, separated by 5-7 days of interval (2 hours each). Testing includes walking, coordination, cognitive and hand function test. Questionnaires related to fatigue, physical activity, sleep quality will be completed and an activity tracker will be worn during 5-7 days.Part B is a pilot randomized controlled trial and includes people with MS presenting walking fatigability. The participants will be randomly allocated to the dance therapy group or the movement therapy group.Interventions take place in groups of 3 or 4 people with MS, twice a week for eight weeks, complementary to their usual care or conventional physiotherapy.Inclusion criteria people with MS (part A & B): age between 35 and 65 years old; a diagnosis of MS, ability to walk for 6 minutes without rest.Exclusion criteria (part A & B): recent relapse, cognitive impairment hindering understanding of study instructions, pregnancy and musculoskeletal disorders in the lower limbs not related to MS. The primary outcome will be walking fatigability, secondary outcomes include walking ability, cognitive function, self-reported walking ability and perceived fatigue. |
| **Kind of study** | multicenter |
| **Duration of the study***(months/years)*  | 12 months |
| **Anticipated number of participants** | Part A: 60 people with Multiple Sclerosis (pwMS) and 30 healthy controls. Part B: 24 people with MS |
| **Start date** | 01/09/2021 |
| **Recruitment possible until** | End date of recruitment (31/08/2022) |
| **Interested in participating?** | Contact: Dr. Cintia Ramari (cintia.ramariferreira@uhasselt.be)  |
| **Principal Investigator/ Supervisor***(name + affiliation)* | Prof. Dr. Peter Feys, Universiteit Hasselt |
| **Local supervisor (NMSC)** | Prof. Daphne Kos |