

## Motekforce Link, Amsterdam

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### **Older adults at risk for falling: can a perturbation-based gait training programme prevent future falls?**

Motekforce Link combines more than fifteen years of experience in high-quality rehabilitation technologies and real-time feedback, using virtual reality techniques. Motekforce Link is part of DIH Technologies, an international player and aspiring market leader in the field of Rehab & Sports Medicine and Intelligent Medication & Supply businesses, with passionate teams in San Diego, Seoul, Hong Kong, Beijing, Zurich and Amsterdam. The Motekforce Link mission is to contribute to the quality of life for every person by defining and setting standards for human movement performance, using our network of partners, our technology, and our drive to make a difference.

Motekforce Link is looking for a highly motivated and skilled PhD student to study the effects of a perturbation-based gait training programme on falls in older adults. External perturbations like trips and slips are a major cause of falls in older adults. Trips and slips can be simulated on a treadmill by quickly accelerating or decelerating the treadmill belt. The main focus of the 3-year PhD studentship will be on a randomized controlled trial investigating whether practice in responding to simulated trips and slips prevents future falls in older adults. In addition, we will study how difficult older adults find the simulated trips and slips, and validating the design of the perturbation-based gait programme. The project is funded by the European commission and it is carried out within the framework of the Initial Training Network “Keep Control”: <http://www.keep-control.eu/>.

#### Requirements

- A completed MSc degree in the field of human movement science, epidemiology, rehabilitation science, health science, biomedical engineering, or related fields.
- Strong skills in biomechanics
- Good social skills and experience in working with human participants;
- Good verbal and written command of the English language; willing to learn Dutch to be able to communicate with patients
- Good communication skills and ability to work in a multidisciplinary and international team
- Good software programming skills (MATLAB and/or Python) and experience working with statistical software

For additional information please contact:  
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## General eligibility criteria

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- Researchers may be of any nationality.
- Researchers must not have resided or carried out their main activity (work, studies, etc.) in the country of the host for more than 12 months in the 3 years immediately prior to their recruitment.
- Applicants should have less than 4 years of postgraduate research experience

## Applications

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For more information and to upload your application (CV, letter of interest and contact information for potential references) visit [www.keep-control.eu](http://www.keep-control.eu).

Deadline for application: June 30, 2017