

**Does methylphenidate treatment in older adults affect attention and motor control during gait initiation under dual tasking situations?**

Lille University is one of the largest in Europe. At the heart of Lille, a young, vibrant city, European Capital of Culture in 2004, Lille University offers its students a top-quality education within the new European norms of Licence (Bachelor), Master and Doctorate, providing maximum opportunity of future success in the workplace.

Our University draws its international dimension from the richness and variety of its courses. It relies on a 4 century history whose quest for excellence goes on.

Linked to the great national research organisations, the University brings together world famous researchers, dedicated to a better understanding of the neurosciences, using trans disciplinary approaches: epidemiology, genetics, biology, clinical research, neuropsychology, neurophysiology, imaging, and pharmacology.

The Department of movement analysis is offering a three-year PhD studentship. The PhD student will perform a study to evaluate the effect of methylphenidate in community-dwelling older adults on dual-task interference during gait initiation. In more detail, we will test the effect of methylphenidate alone, cognitive training alone, both treatments and placebo, to reduce dual-task interference during gait initiation. Indeed, Gait initiation combines motor and cognitive components of movement preparation, and is therefore particularly affected by age-associated deficits in motor control. The project is funded by the European commission and it is carried out within the framework of the Initial Training Network “Keep Control”. The PhD candidate will be (i) collaborating in the clinical, neurophysiological and assessment of the patients; (ii) collaborating in development of neurophysiological markers (using biomechanical, EEG signals) of attention .

**Requirements**

- A completed MSc degree in the field of movement science, rehabilitation science, health science, biomedical engineering, or related fields;
- Good skills in biomechanics and/or neurophysiology;
- Good social skills and experience in working with human participants;
- Good software programming skills (MatLab);
- Good command of the English Language and good English writing skills;
- Good communication skills and ability to work in a multidisciplinary and international team.

For additional information please contact:  
Arnaud Delval ([arnaud.delval@chru-lille.fr](mailto:arnaud.delval@chru-lille.fr))

## 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