

PHD POSITION IN KINESIOLOGY, UNIVERSITY OF TOULON

Mental fatigue, exercise performance and behaviour in adolescents and young adults

A fully-funded PhD position (3 years) is available within the Université de Toulon, at the IAPS Laboratory, under the supervision of Dr. Mathieu Gruet (Université de Toulon) and Dr. Benjamin Pageaux (Université de Montréal).

Deadline for application: **12th June 2022**. Start of the PhD: **September-October 2022**.

Applicants should have or anticipate having, an MSc with distinction and strong research background in motor and/or cognitive performance. Knowledge or expertise in objective and subjective assessments of physical activity and sleep will be an asset. A strong interest in psychophysiology and multidisciplinary research is essential. Non-native French speakers are encouraged to apply but a minimum level of B2 is required. While the PhD will be principally performed at the Université de Toulon, the successful applicant will be expected to complete part of his research (up to six months) at the Université de Montréal.

The successful applicant will be responsible, with the help of her/his supervisory team, for:

- Developing an integrative and multidisciplinary expertise merging the fields of kinesiology, psychophysiology and neurosciences.
- Independently carrying out research and completing a PhD dissertation within three years.
- Collecting, analyzing and interpreting motor, cognitive and behavioural data.
- Reporting the results in international peer-reviewed journals and at conferences.
- Actively contributing to the life of the host institutions.

PROJECT SUMMARY

Prolonged engagement in demanding cognitive tasks induces mental fatigue, which can alter subsequent motor and cognitive performances (Pageaux & Lepers 2018 doi: 10.1016/bs.pbr.2018.10.004). Recent studies observed a negative impact of mental fatigue on physical exercise intentions and behaviour, suggesting potential implications in physical inactivity and sedentary behaviours (Brown & Bray 2019 doi: 10.1093/abm/kay052). However, despite a strong rationale for the presence of recurrent and high levels of mental fatigue in adolescents, most studies have been conducted in adults, with only a few investigations in young populations. Moreover, most findings on mental fatigue cannot be easily translated to daily life functioning as the computerized cognitive tasks used in these studies are not representative of real-life cognitive solicitations that may induce mental fatigue. The main objective of this PhD project is to investigate the effects of mental fatigue on exercise performance and behaviour in adolescents and young adults, with assessments close to real-life conditions. The secondary objective is to identify potential countermeasures and elucidate their underlying neurophysiological mechanisms.

HOW TO APPLY ?

MSc academic transcripts, a cover letter detailing the interest for this specific PhD project, a detailed CV and two reference letters should be sent in a single email to gruet@univ-tln.fr.