

MSc Postgraduate Research Opportunity

MSc Project Title:	Investigation of the potential of omega-3 fatty acids to alleviate concussion symptoms.
Project Duration:	24 month funded MSc project
Organisation:	Atlantic Technological University (ATU) in collaboration with Sport Ireland
Location:	Sport Ireland Institute (IABA), Dublin
Stipend:	€19,000 per annum
Responsible to:	Project Supervisors: Dr. Lisa Ryan, Dr Ed Daly, Prof. Sharon Madigan

Funding: Funding is provided through Erasmus+

Description:

Combat sports such as boxing and judo, expose athletes to risk of concussion. Concussion symptoms may be acute or chronic. Persistent post-concussion syndrome (PPCS) is a condition that can occur following a concussion or mild traumatic brain injury (mTBI) in which symptoms such as headache, dizziness, fatigue, cognitive deficits, and emotional disturbances persist for an extended period of time, typically weeks or months, after the initial injury.

While most people recover fully from a concussion within a few weeks, up to 30% of individuals may experience persistent symptoms that can significantly affect their quality of life. The exact cause of PPCS is not fully understood, but it is believed to be related to changes in brain function and connectivity that occur as a result of the injury.

Treatment for PPCS typically involves a combination of medication, such as pain relievers or antidepressants, and cognitive and/or physical therapy to address specific symptoms and help the individual improve their ability to function in daily life. In some cases, referral to a specialist, such as a neurologist or neuropsychologist, may be necessary for more specialised care. There is some evidence to suggest that omega-3 fatty acids may have a role in the management of acute concussion symptoms and persistent post-concussion syndrome (PPCS).

Omega-3 fatty acids are known to have anti-inflammatory properties, which may be beneficial for reducing inflammation in the brain that can occur following a concussion. In addition, omega-3 fatty acids are important for brain health and function and may help to support the brain's ability to repair and regenerate after injury.

Several studies have looked at the potential benefits of omega-3 fatty acid supplementation in individuals with acute concussion symptoms and PPCS. While results have been mixed, some studies have found that supplementation with omega-3 fatty acids may be associated with improvements in symptoms such as headache, dizziness, and cognitive deficits.

The proposed study aims to assess the omega 3 status of elite boxers and judo players, the prevalence of concussion and PPCS, the symptoms experienced by the athletes and to examine the potential of omega 3 supplementation to alleviate and resolve concussion symptoms.

Requirements/Qualifications: The successful candidate will hold an Honours Degree with a minimum award classification of 2:1 or equivalent in a cognate discipline (Nutrition, Sport and Exercise Science, or a related discipline). Demonstrated experience in statistical software packages, participant requirement and clinical trials would be an advantage, although training will be provided. A full clean driving licence is desirable. The candidate will be expected to work on their own initiative, and be willing to acquire the broader skills necessary for the successful completion of a MSc project.

Project Duration: 24 months

Conditions:

- €19,000 Stipend per annum
- Postgraduate fees for EU students will be covered by the project.
Please Note: Candidates from outside the EU are eligible to apply, but will be expected to provide evidence of sources of additional funds to cover excesses associated with Non-EU fees*
- In addition, any necessary travel and material costs incurred during the project will be covered.
- **The student will be based at the Sport Ireland Institute, Dublin though attendance at ATU Galway City, Dublin Road Campus, Galway may be required at times.**

If either English or Irish is not the applicant's first language, evidence of English language proficiency is required for registration. Please refer to web link [English Language Requirements | ATU - Atlantic Technological University \(gmit.ie\)](#) view the minimum English language proficiency standards for entry to ATU

Project Start Date: April 2024

Application Closing Date: 12 noon Thursday 25th January 2024

Applicants should submit their:

- Curriculum Vitae (to include contact details of 2 referees)
- A copy of transcript of results
- A Personal Statement to:

The Personal Statement should not exceed 1 page and include:

- How you meet the requirements of the position
- Why you would like to pursue this MSc research programme

Applications must be submitted to ResearchOffice.galwaymayo@atu.ie e-mail address only. Please ensure all documents are emailed as a single Word or PDF file.

For further information on the project, please contact: Dr Lisa Ryan (lisa.ryan@atu.ie) or Dr Ed Daly (ed.daly@atu.ie) or Professor Sharon Madigan (smadigan@instituteofsport.ie)

** In lieu of fees a non-EU/EEA scholar may be able to apply to undertake two hours of academic development activities per week during the academic year through participation in teaching support, tutorial provision, and/or practical demonstration."*

Data Protection Statement

ATU takes very seriously its legal obligations as set out in the General Data Protection Regulation 2016/679 (GDPR) and the Irish Data Protection Act 2018 to safeguard and protect your personal information in our possession. The personal information which you disclose to us in this form will only be used to assess your suitability; administer and register you for this scholarship. We will not keep your personal information for any longer than is necessary for those stated purposes. **For more details, please refer to ATU's Student Privacy Statement:** <http://www.gmit.ie/general/student-privacy-statement>