

POSTGRADUATE RESEARCH OPPORTUNITY

Project Title: Longevity and Successful Ageing: Master Athletes' Physiology and Enhancing Elderly Health

Short Project Description As global populations age at an unprecedented rate, there is an urgent need to improve contemporary understanding of aging physiology and develop strategies to enhance health span, ensuring a better quality of life for elderly individuals. This project is poised to explore physiological mechanisms underlying health and longevity in master athletes, whom serve as exemplary models of successful aging. Importantly, much of the existing ageing research may be confounded by factors such as longitudinal sedentary behaviour. Consequently, there exists a significant gap in our understanding of the inherent aging processes dissociated from physical inactivity, and master athletes engaging in lifelong exercise can subsequently present unique and valuable insight. By leveraging a multifaceted research- and application-based approach whilst in collaboration with national and international industry partners and academic institutions, this project has been designed to accomplish two principal objectives. Firstly, investigate the physiological characteristics of world-calibre male and female master athletes, examining the training and nutritional practices which afforded these individuals such high psychophysiological functionality, thereby presenting implications for improving elderly health. Secondly, develop and implement a community-based pilot intervention informed by the project's preliminary findings. In order to achieve these objectives, the project will include a systematic review with meta-analysis, analysis of open-source data in thousands of master athletes, a global questionnaire, case series analysis and a community-based pilot intervention. By bridging the research-practice gap, this project aspires to significantly enhance our understanding of healthy aging and offer evidence-based guidance to improve the lives of our aging population.

Duration of Project: 48 months

Funding Agency: TUS RISE Scholarship comprises of a monthly stipend, materials budget and postgraduate fee for the duration of the award only.

Type of Degree Offered: PhD

Minimum Qualifications/Experience Necessary/Any Other Requirements:

BSc in Sports Science, Athletic and Rehabilitation Therapy, Physical Education or a relevant area, with a minimum of second-class honours Grade 1.

IELTS [International English Testing System] Applicants must have a minimum of 6.0 with no component score less than 6.0.

Research Supervisors:

Dr Lorcan Daly, Dr David Kelly, Dr Ciarán, O' Catháin, Prof Harry Rossiter, Prof Sandra Hunter.



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**Technological University of the Shannon:
Midlands Midwest**
Ollscoil Teicneolaíochta na Sionainne:
Lár Tíre Iarthar Láir

For further information, please contact:

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Applications:

A completed application form along with (i) a 500-word research summary on *'the physiology of master athletes as a model of healthy ageing'* and (ii) a 2-page curriculum vitae are required.

Closing date for receipt of completed application forms (including a personal statement) is 5pm on Tuesday, 4th June.

Interviews will take place within subsequent weeks.

Download TUS RISE application form here:

<https://tus.ie/rdi/research/office/funded-research/>



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