

## PhD Studentship

### Implementing Community-based Exercise Opportunities for individuals living with chronic disease

#### Project Background:

Globally, inactivity is a pandemic responsible for more than five million deaths annually and is one of the UN's primary targets to reduce non-communicable diseases (NCDs). In 2012, The Lancet published its first series on physical activity, which cited inactivity as the fourth leading global risk factor for death, especially in high income countries. The series concluded that physical inactivity is as important a modifiable risk factor for chronic disease as obesity and tobacco<sup>1</sup>

In Ireland, an estimated one quarter of the population (1.2 million) suffer from cardiovascular, respiratory and metabolic disease, half the population are overweight or obese, cancer affects one in three and 10% of adults report having experienced a mental health problem. These conditions account for 75% of all deaths, and the all-cause mortality rate associated with physical inactivity is estimated at 14.2%<sup>2</sup>. The Mid-West of Ireland, in line with national trends is facing a rising epidemiology of chronic conditions (cardiovascular disease, stroke, respiratory and metabolic disease).

While there is robust evidence for the efficacy of exercise intervention for secondary prevention and rehabilitation of patients with lifestyle-related diseases, exercise is under-utilised, under-prescribed and frequently overlooked, often in favour of pharmacologic or surgical intervention<sup>3</sup>. In 2015, member states of the WHO agreed to a 10% relative reduction of insufficient physical activity by 2025 as one of the major targets to improve prevention/treatment of NCDs. However, data published in 2018 on global physical activity trends show no increase in activity levels in the past 15 years<sup>4</sup>. Irish data reveals 65% of people are aware that they should be active for at least 150 minutes each week at an intensity that yield significant health benefits, however only 66% are identified as sufficiently active, with the percentage even lower among people living with NCDs<sup>4</sup>.

Implementation of the Health Services Executive's Integrated Model of Care for the Prevention and Management of Chronic Disease (2020-2023) has commenced with a strong focus on primary care, tasking general practitioners and practice nurses to provide scheduled reviews with specified chronic disease patient cohorts. Primary healthcare professionals have received training on brief lifestyle interventions and primary care data management systems have been adapted. The National Exercise Referral Framework<sup>4</sup> identified the 'Physical Activity Pathway in Healthcare Model' (PAPHM) as a strategy for embedding exercise and physical activity into routine primary healthcare. The ULMedX model tested the PAPHM in practice in UL from 2018-2020 with and is now at the stage of scaling its services.

This project proposes to use the knowledge and skills gained in ULMedX to explore **the facilitators and barriers to implementing a community-based programme**. This PhD will use a systems approach, to pragmatically explore how structured exercise opportunities could be fully implemented into primary healthcare services and physical activity promotion within the community. A structured exercise programme will run in the University of Limerick (UL) wherein it was first developed. UL will act

<sup>1</sup> Lambert EV, et al, Lancet Physical Activity Series Working Group. The pandemic of physical inactivity: global action for public health. The lancet. 2012 Jul 21;380(9838):294-305.

<sup>2</sup> Jennings S. Preventing Chronic Disease: Defining the Problem. Report from the Prevention of Chronic Disease Programme. Health Service Executive. 2014 December. ISBN: 978-1-908972-05-7

<sup>3</sup> Lee IM, et al. Lancet Physical Activity Series Working Group. Effect of physical inactivity on major non-communicable diseases worldwide: an analysis of burden of disease and life expectancy. The lancet. 2012 Jul 21;380(9838):219-29. PMID: 22818936

<sup>4</sup> Woods C., et al. The National Exercise Referral Framework. Health and Wellbeing Division, Health Service Executive. Dublin. Ireland. 2016  
<https://doi.org/10.21427/D7P52W>

as the hub, with an additional community setting also delivering evidence-based, high-quality exercise programmes. The deliverables of this project will results from both process and outcome evaluation as per the National Exercise Referral Framework guidelines. Specific Project Objectives:

1. **To assess facilitators and barriers to exercise referral and service provision within CHO3.**
2. **To assess programme adoption, acceptability, reach and sustainability within diverse community settings.**
3. **To develop a framework for implementation and sustainability of community-based physical activity programmes for individuals living with chronic disease.**

To meet our research agenda, we would like to offer a full-time PhD Scholarship to a suitable candidate; details of the application process are given below. The successful candidate would become part of the Physical Activity for Health Research Centre (PAfH) at UL (see: [www.pafh-ul.ie](http://www.pafh-ul.ie)), and be part of the Health Research Institute. As such, the PhD candidate would have the full support and access to UL postgraduate resources and laboratories. The expectation would be that the student would enrol in a structured PhD programme. During this time, the PhD candidate would be trained in both qualitative (interviews) and quantitative (questionnaire, physical health measures, audit) research methods appropriate to their project. The student would also be given the opportunity to contribute to relevant undergraduate modules, as agreed by the supervisory team. This will be managed to ensure that it provides necessary continuing professional development alongside the opportunity to meet the student's research requirements. As a full-time PhD student, the successful candidate would be assigned to this ULMedX project and work with the project steering group.

The studentship will cover annual postgraduate fees (€5,500) and a stipend (€16,000 per annum). Successful applicants will normally have a postgraduate qualification or an Upper Second Class Honours Degree in implementation science, exercise science, physiotherapy, health promotion, psychology, physical activity, or a cognate area. Experience of working with clinical populations or older adults, teaching exercise to groups or individuals, evidence of project management, scientific writing and an understanding of statistics would be an advantage. Candidates would need to be able to demonstrate ability to work independently with support of a teaching or research supervisor and the enthusiasm to contribute to a stimulating research and teaching environment.

Informal enquiries should be directed to Professor Catherine Woods, Physical Activity for Health Research Cluster, Department of Physical Education and Sport Sciences, University of Limerick. Email: [Catherine.Woods@ul.ie](mailto:Catherine.Woods@ul.ie)

Please send a CV (full curriculum vitae with referee details) with a personal statement outlining why you would like to pursue this research opportunity (maximum 500 words) and what you think you could contribute to this study (maximum 500 words) to Justyna Lis ([Justyna.Lis@ul.ie](mailto:Justyna.Lis@ul.ie)). Closing date for receipt of application is **August 5th 2023**. Short-listed applicants will be required to attend for interview week commencing **August 21st**. The start date for the PhD is mid-September 2023.