

**Dundalk Institute of Technology invite applications for the following position:  
PhD postgraduate Scholarship (Full-time: 36 months)**

**Project overview**

**Title:** Role of a Fast Sodium Current in Erectile Function

**Supervisor:** Prof Keith Thornbury

**Position Reference:** 06STEM2021

**Keywords:** Ion channels, NaV, corpus cavernosum, erectile dysfunction

**Project Overview:** The penis is a cylinder filled with a sponge-like tissue (corpus cavernosum). When not sexually aroused, blood flow is restricted because the pores in the sponge are shut due to contraction of smooth muscle cells. Understanding erection/erectile dysfunction requires understanding of the factors that keep the muscle cells contracted when not aroused. Intracellular [Ca<sup>2+</sup>] triggers contraction, so the challenge is to determine how multiple muscle cells regulate their [Ca<sup>2+</sup>] simultaneously, allowing the tissue to function as a coordinated unit. We will study this question using state-of-the-art confocal microscopy and transgenic mice that genetically express an intracellular fluorescent [Ca<sup>2+</sup>]-sensor.

**Dundalk Institute of Technology**

Dundalk Institute of Technology is a dynamic, world class Institute that has developed an international reputation in both basic and applied research through its Research Centres. This PhD Scholarship is offered through the Smooth Muscle Research Centre within the School of Health and Science at DkIT. The successful applicant will be registered as a full time postgraduate research student in the DCU-DKIT Graduate School. The PhD position will be located on the DkIT campus and the Degree will be awarded by Dublin City University.

**Funding**

This project is co-funded by the HEA Technological Universities Transformation Fund and DkIT.

The successful candidate shall receive a postgraduate stipend of €18,500 per annum, plus fees and a contribution to their direct research project costs. The duration of this PhD studentship is 36 months, Full Time. Terms and conditions will apply.

## Eligibility

Eligibility Criteria:	Essential	Desirable
Qualifications	2:1 Honours Degree (or equivalent) in Physiology, Pharmacology or a related discipline	
Experience/knowledge	Keen interest in research demonstrated in undergraduate or other research project.	

It is also a requirement that any applicant whose first language is other than English must have a certified English language proficiency of at least IELTS 6.5 or equivalent.

### Application process

Please send a **copy of your CV and a 1-page cover letter** to [orla.lynch@dkit.ie](mailto:orla.lynch@dkit.ie) no later than **4.00 pm on Thursday January 20<sup>th</sup> 2022**. Applications received after this time will not be considered.

Please use the position reference **“06STEM2021”** in the subject title. Short listed candidates will be invited to interview.

Please note, canvassing will render an applicant ineligible.