PhD Position in Oesophageal Cancer Biomarkers and Therapeutics

University College Dublin – Dublin, Ireland

Project Description

Barrett's Oesophagus (BO) is a pre-cancerous condition that significantly increases the risk of developing oesophageal adenocarcinoma (OAC), a highly aggressive malignancy with poor survival outcomes. Obesity is a well-established risk factor for BO and OAC, promoting chronic inflammation and metabolic dysregulation that drive disease progression. However, the precise mechanisms linking obesity to BO progression remain poorly understood, and there are currently no effective pharmacological interventions. This PhD project will be part of the AllCaN consortium, an all-Ireland collaborative initiative dedicated to advancing research in oesophageal cancer. The project aims to investigate how obesity-driven inflammatory and metabolic changes contribute to BO progression and to evaluate novel therapeutic strategies targeting these pathways. The study will assess the effects of a novel anti-inflammatory drug, 1-4 dihydroxy Quininib (Q8), alone and in combination with obesity-targeting drugs, in modulating the BO microenvironment. This project will provide critical insights into the metabolic-inflammatory mechanisms underlying BO and will contribute to the development of novel, non-invasive therapeutic strategies. This research has the potential to transform the clinical management of BO and OAC and improve patient outcomes through precision medicine approaches. The successful applicant will gain experience in translational research, working with cutting-edge proteomics, transcriptomics, and patient-derived *ex vivo* and *in vivo* models. By leveraging the collaborative expertise of the AllCaN consortium and a structured PhD programme at UCD, the candidate will benefit from an interdisciplinary research environment and extensive training opportunities in cancer biology, biomarker discovery, and therapeutic development.

Application and Qualifications:

A 4-year PhD position is available in the Cancer Biology and Therapeutics Lab, under the supervision of Dr Simone Marcone, at University College Dublin. This PhD is fully-funded by the School of Biology and Environmental Science, including fees and an annual stipend of €25,000. The PhD will commence on May 1st 2025. We are seeking a highly enthusiastic applicant with a passion for biomedical and translational research. The applicant should have a 2.1 or higher Bachelor's degree from a relevant biological discipline such as cell biology, pharmacology, medicine, genetics, biochemistry, etc.

How to apply:

- Applicants should send a single PDF document including a brief CV, 1 page cover letter, and contact details of two referees to: simone.marcone1@ucd.ie
- Please complete this online form as part of your application (https://forms.gle/iu2VuiUiAHvgxA3KA)
- Deadline for application: **16th March 2025**. Interviews will be held in the last week of March.

Pursuing a PhD at UCD:

- Includes a tax-free stipend of €25,000 per year and tuition fee coverage
- The student will serve as a Research Demonstrator (Teaching Assistant) for at least six hours per week, with additional pay on top of the stipend at this hourly rate. The fee concession excludes the Student Centre Levy, which the student must cover.
- UCD is committed to creating an environment where diversity is celebrated everyone is treated fairly – come and join the team!
- UCD is ranked in the top 1% of higher education institutions worldwide. The large city campus contains lakes, woodland walks, and wildlife.
- Information for international applicants (visa requirements) is available here