TU RISE PhD Scholarship

Project Title: **Marine and Plant Bioextracts for Bovine Udder Health in Mastitis (*MAPBIO-MILK*)**

Location: Shannon Applied Biotechnology Centre,
Department of Biological and Pharmaceutical Sciences, School of STEM,
MTU - Kerry Campus

About the Project

We invite applications for a **fully funded 4-year PhD** project as a full-time programme of study. The PhD project, **Marine and Plant Bioextracts for Bovine Udder Health in Mastitis (MAPBIO-MILK)** is funded by MTU supported by TU RISE funding.

The MAPBIO-MILK PhD project seeks to advance the state of the art in bovine mastitis research by exploring the use of marine and plant bioextracts in supporting bovine udder health and the timely detection of mastitis with a newly developed biosensor. Significant effort has been expended to understand the bovine mammary response to pathogenic bacteria to optimise prevention and therapy strategies for mastitis in dairy cows. The MAPBIO-MILK PhD brings together a multidisciplinary team of academic, industry research interests and stakeholders in animal health, infection and disease, microbiology, tissue cell culture, immunology and biosensors to explore the use of bioextracts for reducing bacterial led infection and inflammation in bovine mastitis and the application of a new biosensor for timelier somatic cell monitoring in mastitis which causes significant economic impact to dairy producers.

Requirements:

Applicants must have achieved at least a **second-class higher level (2H1) classification** or equivalent in an appropriate **science** related discipline area relevant to the research field from a recognised degree awarding body OR possess a **master's degree** in an appropriate discipline area relevant to the research field from a recognised degree awarding body.

The successful candidate should be **highly self-motivated** with enthusiasm to develop technical skills across **tissue cell culture, microbiology, biochemistry, immunology** and **biosensor applications**.

They should have an interest in and an aptitude for **animal health, infection and disease, cellular infection, tissue cell culture, immunomodulatory** responses, **marine and plant bioactive compounds** and **biosensor applications** for timely detection of disease onset.

For applicants whose first language is not English, the English language requirements accepted by MTU for entry into postgraduate studies are:

- IELTS Academic 6.0 (No less than a 5.5 in any one band)
- PTE Academic 51 (Minimum 45 in each component)
- TOEFL IBT 80 min (score of 18 in each component)

- Duolingo score Min of 100

Please refer to: https://www.mtu.ie/international/eu-applicants/

General terms and conditions of this PhD scholarship award

Start date & location: This PhD starts no later than 1 Jan 2025. The student will be based primarily at the Shannon Applied Biotechnology Centre, Department of Biological and Pharmaceutical Sciences, MTU Kerry campus. The student will be registered at MTU, working under the supervision of **Dr Joanna Tierney** and **Dr Bridget Breen** in association with **Dr Ashley Sullivan** (MTU Kerry) and **Dr Venkata Vamsi B Yallapragada** (Centre for Advanced Photonics & Process Analysis (CAPPA), MTU Cork). The PhD Scholar is required to spend at least 12 weeks on placement with an enterprise partner within the four-year term of their doctoral programme. The project supervisor/PI (in conjunction with the PhD scholar) is responsible for arranging the student placement with a suitable enterprise partner.

Funding: The scholarship funding is tax free and includes payment of University PhD fees (EU or non-EU) and a student stipend at a flat rate of €25,000 per annum which is tenable for 4 years.

To Apply: Please send a **single PDF file** consisting of the following to Joanna.Tierney@mtu.ie with **'TU RISE PhD Application'** in the subject heading:

1. Resume/Curriculum Vitae (CV), including:
    - Education History
    - Relevant skills
    - Research projects/publications
2. A cover letter (2-pages max) including a description of the applicant's research interests, reasons for applying for the position. The Cover letter must clearly indicate how the applicant's profile and skills fit the requirements of this PhD position.
3. Scanned copies of relevant academic transcripts and English language certificates.
4. A minimum of two recommendation letters and/or contact information for referees.

Further information or queries please e-mail: Joanna.Tierney@mtu.ie

Closing date for applications: 31st October 2024

Interviews (on-line) anticipated to be held early/mid November 2024

PhD commencement date latest by 1st January 2025.

Funding Acknowledgement

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Rialtas na hÉireann Government of Ireland
Arna chomhchistiú ag an Aontas Eorpach Co-funded by the European Union
Tionól Réigiúnach an Deiscirt Southern Regional Assembly
HEA HIGHER EDUCATION AUTHORITY AN ÚDARÁS um ARD-OIDEACHAIS
