



Trinity College Dublin

Coláiste na Tríonóide, Baile Átha Cliath

The University of Dublin

Post Title:	Postdoctoral Researcher – development of wearable sensor solution to monitor patients undergoing treatment for cancer
Post Status:	Full-time
Research Group / Department / School:	Medical Circuits and Systems Laboratory & Wireless Engineering and Complexity Science Laboratory, School of Engineering, Trinity College Dublin, the University of Dublin
Location:	Department of Electronic and Electrical Engineering, Aras An Phiarsaigh, Trinity College Dublin, Dublin 2, Ireland
Reports to:	Professor Friedrich Wetterling
Terms & Conditions:	The appointment will be on a temporary basis for a maximum period of 36 months (Postdoctoral Researcher, regular full-time employment contract), namely Annual Living Allowance: €46,411; subject to taxes and social charges.
Hours of Work:	Full time ~ 38 hours/week
Closing Date:	Open until suitable candidate is identified

Post Summary

The **Medical Circuits and Systems Laboratory** ([MediCAS-Lab](#)) at Trinity College Dublin are seeking a Postdoctoral Researcher to explore and develop a wearable solution to monitor patients receiving treatment in a controlled environment.

This position is part of the LOTUS Disruptive Technologies Innovation Fund (DTIF) lead by Luminate Medical Ltd. And the position will at Trinity College Dublin is dedicated to **developing data capturing solutions for wearable sensors** that facilitate treatment of patients in a controlled clinical environment. The project will achieve this through exploring **supporting the data management plan (WP1), and design iteration of the firmware to capture the data towards verification and design freeze (WP3) as well as supporting the final units for the clinical trial (WP5).**

The specific objectives are:

- (a) Support the **development of a wearable unit** and its data streaming abilities to capture vital signs during observational studies pre-clinically.
- (b) Support the **Data Management Plan and Risk Assessment** of the developed solution.
- (c) Support **verification and design freeze** as the solution matures.
- (d) **Support the final product roll-out and use** as the product is deployed in a controlled clinical trial.

This project is supported by the DTIF Lotus project led by Luminate Medical Ltd. and managed by Enterprise Ireland.

Standard Duties and Responsibilities of the Posts

Applicants should ideally hold a primary degree in biomedical engineering, electronics, or communication engineering. Preference will be given to candidates who have experience in signal processing and circuit and system development techniques. Specific skills that would enhance a candidate's application for the position might include experience in some of the following areas: acceleration sensors, wearable device design, and other data system related topics. Excellent written and oral communication skills are essential.

Funding Information

This position is financially supported through the DTIF LOTUS project led by Luminate Medical and the portion of the grant acquired by Professor Friedrich Wetterling who is with the School of Engineering, Trinity College Dublin.

Person Specification

Qualifications

The ideal candidate should hold an honours undergraduate degree and a post-graduate degree (ideally a PhD, but at least a M.Sc.) in a relevant discipline (e.g. electronics or mechanical engineering, or biomedical engineering). There is no one 'specific' discipline that fits this project. Ideally an engineer or physicist. We are looking for someone that is motivated, intrigued by scientific discovery, diligent and pays attention – taking pride in their work; and overall a good team player. This is the primary criteria.

Knowledge & Experience (Essential & Desirable)

Desirable

- Knowledge of wearable sensors
- A keen desire to learn and become proficient in new skills
- Analogue and digital data acquisition and preparation methods
- Good programming skills (MATLAB and or Python)

Essential

- Experience working with statistical software, e.g. GraphPad Prism, R.
- Experience working as a research assistant in applied settings.
- Experience working with qualitative and/or quantitative data.
- Demonstrable research interests within communication engineering.
- Proven ability to plan, prioritise and meet deadlines.

- Excellent communication and interpersonal skills.
- Ability to work independently and as part of a team.
- Excellent IT skills, including MS Office, e-mail and Internet.

Skills & Competencies

While candidates may not possess all the skills above, we still welcome applications from individuals in complimentary skills. For many of the techniques above, candidates will be expertly trained by existing members in our labs and through collaborators. It really is key that an individual is open to such training and can grasp concepts quickly.

Application Procedure

Applicants should submit a full Curriculum Vitae to include the names and contact details of 2 referees (including email addresses) to Professor Friedrich Wetterling (Friedrich.wetterling@tcd.ie). Only shortlisted applicants will be responded to, the next stage being a zoom call with Prof Wetterling, and their teams. Please include a cover letter, CV, relevant academic transcripts and other information in ONE submitted .pdf file.

Further Information for Applicants

URL Link to Area	www.tcd.ie
URL Link to the MediCAS-Lab	www.MediCAS-Lab.eu

Trinity College Dublin, the University of Dublin

Trinity is Ireland's leading university and is ranked 75th in the world (QS World University Rankings 2026). Founded in 1592, the University is steeped in history with a reputation for excellence in education, research and innovation.

Located on an iconic campus in the heart of Dublin's city centre, Trinity has 20,000 undergraduate and postgraduate students across our three faculties – Arts, Humanities, and Social Sciences; Engineering, Mathematics and Science; and Health Sciences.

Trinity is ranked as the 31st most international university in the world (Times Higher Education Rankings 2024) and has students and staff from over 120 countries.

The pursuit of excellence through research and scholarship is at the heart of a Trinity education, and our researchers have an outstanding publication record and strong record of grant success. Trinity has developed 19 broad-based multidisciplinary research themes that cut across disciplines and facilitate world-leading research and collaboration within the University and with colleagues around the world. Trinity is also home to 5 leading flagship research institutes:

- Trinity Biomedical Sciences Institute (TBSI)
- Trinity College Institute of Neuroscience (TCIN)
- Trinity Translational Medical Institute (TTMI)
- Trinity Long Room Hub Arts and Humanities Research Institute (TLRH)
- Centre for Research on Adaptive Nanostructures and Nanodevices (CRANN)

Trinity is the top-ranked European university for producing entrepreneurs for the past five successive years and Europe's only representative in the world's top-50 universities (Pitchbook Universities Report).

Trinity is home to the famous Old Library and to the historic Book of Kells as well as other internationally significant holdings in manuscripts, maps and early printed material. The Trinity Library is a legal deposit library, granting the University the right to claim a copy of every book

published in Ireland and the UK. At present, the Library's holdings span approximately 6.5 million printed items, 400,000 e-books and 150,000 e-journals.

With over 120,000 alumni, Trinity's tradition of independent intellectual inquiry has produced some of the world's finest, most original minds including the writers Oscar Wilde and Samuel Beckett (Nobel laureates), the mathematician William Rowan Hamilton and the physicist Ernest Walton (Nobel laureate), the political thinker Edmund Burke, and the former President of Ireland Mary Robinson. This tradition finds expression today in a campus culture of scholarship, innovation, creativity, entrepreneurship and dedication to societal reform.

Rankings

Trinity is the top ranked university in Ireland and ranked 75th in the world (QS World University Rankings 2026). Trinity ranks in the top 100 in 18 subjects (QS World University Rankings by Subject 2025). Full details are available at: www.tcd.ie/research/about/rankings.