



OLLSCOIL NA GAILLIMHĒ
UNIVERSITY OF GALWAY



HR EXCELLENCE IN RESEARCH

Postdoctoral Researcher – Physiology

Discipline of Physiology, School of Pharmacy and Medical Sciences

Ref. No. 011407

JOB ADVERTISEMENT

Applications are invited from suitably qualified candidates for a full-time (1 FTE), fixed-term position of Postdoctoral Research Fellow in the Vascular Physiology Research Lab (VPRL) in the Discipline of Physiology at University of Galway for 24 months.

The project is funded under a public/private fund consortium including the SFI-Funded CURÁM National Research Centre, University of Galway, Versono Medical Ltd. and Medtronic (Ire)). This position is available immediately and will run to contract end date of December 31st 2027.

Discipline of Physiology and **CURÁM**

Salary: Postdoctoral Researcher salary scale €45,846 - €58,481 per annum, (subject to the project's funding limitations), and pro rata for shorter and/or part-time contracts.

The default position for all new public sector appointments is the 1st point of the salary scale. This may be reviewed, and consideration afforded to appointment at a higher point on the payscale (subject to the project's funding limitations), where evidence of prior years' equivalent experience is accepted in determining placement on the scale above point 1, subject to the maximum of the scale.

[\(Research Salary Scales - University of Galway\)](#)

Employment permit restrictions apply for this category of post (For Part-time posts, please include this clause in the advertisement)

Closing date for receipt of applications is 17:00 (Irish Time) on 14th November. It will not be possible to consider applications received after the closing date.

***Please review full job description for further details and essential requirement**

Job Description:

The successful candidate will spearhead bio-engineering aspects of the innovative PEDISAV project collaborating with consortium partners across the Discipline of Physiology, CURÁM, University of Galway, and Galway-based MedTech industry leaders Versono Medical Ltd and Medtronic (Ire). This cutting-edge project investigates the pharmacokinetics of anti-restenotic drug delivery to arterial tissues, with a particular focus on how ultrasonic treatments can enhance drug penetration from drug-eluting balloon catheters. The research aims to develop experimental models using human arterial tissues to optimise drug delivery mechanisms, improve therapeutic efficacy, and reduce restenosis in cardiovascular interventions.

The successful candidate will be responsible for prototype refinement, testing methodology development, and evaluating performance using established peripheral vascular models of health and



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disease. Prior post-doctoral research experience and a track record of independent funding acquisition is highly advantageous but not essential. The position is based in the state-of-the-art Human Biology Building at University of Galway, primarily working with Physiologists Prof Leo Quinlan and Dr Brendan Higgins.

Duties:

- Design, develop, and refine prototypes of vascular intervention devices using 3D printing, CAD, and other fabrication techniques
- Manage and test bioreactor and isometric tension testing of human blood vessels as models for device performance evaluation
- Design and implement testing rigs and protocols to evaluate device performance metrics
- Analyse and interpret project research results, with particular focus on engineering performance metrics
- Lead research teams in conjunction with the PI and contribute to the co-supervision of post-grads and PhD students
- Present project results nationally and internationally at scientific and engineering conferences
- Contribute to project and research team meetings
- Plan project activities and set key milestones
- Contribute to publications and/or IP protection of findings
- Any other duties assigned commensurate to this level of post

ELIGIBILITY REQUIREMENTS

Essential Requirements:

- Minimum of a PhD in Biomedical Engineering, or related discipline with experience in drug delivery systems. We will also consider candidates that have submitted their thesis and awaiting viva prior to shortlisting.
- Demonstrated experience in biomedical prototyping and working on vascular systems.
- Experience in wet lab-based cardiovascular/vascular physiology methodologies including catheters, stents, or other minimally invasive tools.
- Evidence of independent research and a track record of publications in high-impact journals
- Experience with mechanical testing of biological tissues and biomaterials
- Evidence of collecting, analysing, and interpreting data from vascular experiments, using computer software and statistical methods
- Evidence of strong written, verbal, and interpersonal communication skills, including skills to produce scientific and technical information that is appropriately presented and effectively received by academic and non-academic audiences

Desirable Requirements:

- Previous experience in handling ex vivo human tissues
- Experience with microfluidics or vascular flow simulation such as computer modelling to simulate blood flow.



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- Contribute to advanced imaging techniques such as ECM biology, ECM biomaterials, 2-D and 3-D human cell culture, collagen and elastin biology, vascular tissue engineering, RNA and protein isolation from tissue and cultured cells, real-time PCR, Western blotting, molecular biology, histology, immunocytochemistry, and fluorescence microscopy (confocal/multiphoton).
- Knowledge of university project management systems (including Agresso)
- Evidence of data handling, analysis, and visualisation of dynamic physiological and engineering data
- Demonstrated ability to multi-task with demanding timeframes and to respond appropriately to rapidly changing deadlines
- Flexible, self-motivated; ability to work independently and collaboratively

CONTINUING PROFESSIONAL DEVELOPMENT

Continuing Professional Development/Training:

Researchers at University of Galway are encouraged to avail of a range of training and development opportunities designed to support their personal career development plans. University of Galway provides continuing professional development supports for all researchers seeking to build their own career pathways either within or beyond academia. Researchers are encouraged to engage with our Researcher Development Centre (RDC) upon commencing employment - see [HERE](#) for further information.

FURTHER INFORMATION/LINKS

- **TO APPLY:** [Search Current University of Galway vacancies](#). Applications must be submitted online.
 - [How to apply guide](#)
- For informal enquiries, please contact Dr Brendan Higgins, Physiology, School of Pharmacy and Medical Sciences. Email: brendan.higgins@universityofgalway.
- [University's Strategic Plan](#)
- [Working in Research at University of Galway](#)
- [Moving to Ireland \(Euraxess\)](#)
- [Applicant Information](#)
- Closing date for receipt of applications is 5.00 pm (Irish Time) 14th November, 2025. We reserve the right to re-advertise or extend the closing date for this post.
- University of Galway is an equal opportunities employer.



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- All positions are recruited in line with Open, Transparent, Merit (OTM) and Competency based recruitment.



Medtronic



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