

OLLSCOIL NA GAILLIMHE UNIVERSITY OF GALWAY



Postdoctoral Researcher – RestOAre Physiology School of medicine (1FTE) Ref. No. 011064

JOB ADVERTISEMENT

This position is funded by Enterprise Ireland as part of the Disruptive Technologies Innovation Fund (DTIF) initiative and is available from 1st April 2025 until contract end date of March 31st 2026 (with the possibility of extension subject to funding availability). The successful candidate will primarily manage research tasks in Polymer Chemistry, Physical Chemistry and Analytical Chemistry for the DTIF project. They will liaise with other research collaborators within the University of Galway and the industrial partner. The role involves supporting the development of novel drug prototypes through the characterisation and formulation of advanced drug delivery systems for the treatment of osteoarthritis. A deep understanding of polymer chemistry is essential, from techniques used for their characterisation to the study of their behaviour as solids and in solution. Advanced knowledge and skills in drug delivery systems are critical. The candidate will also be involved in in vitro testing and further translational activities.

The successful candidate will be responsible for generating research and innovation impacts for the project, coordinating activities, organising tasks, and managing work packages related to the chemical aspects of the DTIF project. They should possess excellent critical thinking skills and demonstrate the ability to conduct cutting-edge, high-impact research with a high degree of independence. The candidate will also be responsible for writing technical reports and will have experience in the preparation of scientific publications.

The Candidate will be based in the CPRL lab, Discipline of Physiology at the University of Galway, working under the supervision of Prof Leo Quinlan.

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)

Closing date for receipt of applications is 17:00 (Irish Time) on 9th May 2025. It will not be possible to consider applications received after the closing date.

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



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JOB DESCRIPTION

Job Description:

The successful candidate will Characterise and study novel polymeric materials for improved drug efficacy and perform advanced material characterisation at a solid state and in solution

Duties:

- Develop and optimise formulation strategies including solid dispersion, for drug efficacy and bioavailability
- Conduct solubility and dissolution studies relevant to drug delivery systems
- Provide guidance on the design and optimisation of the formulation based on physicochemical properties
- Liaise with the biological team on appropriate formulation and stability testing
- Collaborate with the biological team on in vitro testing
- Mentor and supervise junior researchers or students
- Stay updated on regulatory guidelines and industry standards for drug delivery systems
- Stay current with the latest developments in the field of drug development for osteoarthritis
- Collaborate with multidisciplinary team members and communicate scientific findings effectively
- Publish high-quality research in peer-reviewed journals and present findings at international conferences
- Contribute to grant writing and project management activities within the research group
- Report progress to academic collaborators and the industrial partner
- Any other duties assigned commensurate to this level of post
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ELIGIBILITY REQUIREMENTS

Essential Requirements

- A Ph.D. in Chemistry or Pharmaceutical Sciences
- Mandatory experience and skills in polymer chemistry
- Experience and skills in physical chemistry, including rheology
- Experience and skills in analytical chemistry
- Proficiency in a wide range of analytical techniques for polymer characterisation
- Proficiency in a wide range of analytical techniques for small molecules
- Mandatory experience in drug delivery systems and drug release studies
- Knowledge of biological techniques
- Experience in translational projects
- Experience in writing technical reports
- Experience in writing publications, including first-authored papers
- Knowledge and skills related to the chemistry of drug development



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Desirable criteria

- criteria in the recruitment and selection process
- Experience organic synthesis is highly desirable
- Experience in mentoring junior researchers or students
- Strong communication skills
- Proficiency in data handling and analytical skills
- Ability to work independently

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 <u>HERE</u> for further information.

FURTHER INFORMATION/LINKS

- **TO APPLY**: <u>Search Current University of Galway vacancies</u>. Applications must be submitted online.
 - How to apply guide
- For informal enquiries, please contact Leo Quinlan Physiology School of Medicine leo.quinlan@universityofgalway.ie
- University's Strategic Plan
- Working in Research at University of Galway
- Moving to Ireland (Euraxess)
- <u>Applicant Information</u>
- We reserve the right to re-advertise or extend the closing date for this post.
- University of Galway is an equal opportunities employer.
- All positions are recruited in line with Open, Transparent, Merit (OTM) and Competency based recruitment.



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