OLLSCOIL NA GAILLIMHE
UNIVERSITY OF GALWAY

HR EXCELLENCE IN RESEARCH

Postdoctoral Researcher – SHELLWISE Project

School of Natural Sciences (Zoology) / College of Science and Engineering

Ref. No. 011069

JOB ADVERTISEMENT

Applications are invited from suitably qualified candidates for a full-time, fixed term position as a Postdoctoral Researcher with the School of Natural Sciences at University of Galway, Ireland.

This position is supported through the Sustainable Energy Authority of Ireland funded **SHELLWISE** project and is available from September 2025 for a duration of up to 36 months. The goal of the **SHELLWISE** project is to investigate the potential negative (or neutral) impacts of noise pollution and vibration from offshore wind turbines on marine shellfish health, and to measure/model underwater sound propagation from offshore wind farms.

Ireland's strategy to transition to a sustainable, clean energy future is imperative and requires us to increase vastly our offshore wind energy systems. As we move renewable energy systems from land to sea, there is an urgent need to evaluate the potential risks posed to wildlife health and habitats. Acoustic energy (noise) propagates through water and sediments causing disturbances due to pressure and particle velocity. Charismatic fauna, such as marine mammals and birds, have been the subject of extensive environmental impact assessments and surveys. This is not the case for spineless animals, i.e., invertebrates, which are economically and ecologically important. Marine invertebrates, notably shellfish, represent key members of benthic ecosystems, lucrative fisheries (e.g., crustaceans, shelled molluscs), and are of great value to coastal community heritage.

Through the interdisciplinary **SHELLWISE** project, the Post-Doctoral Researcher will contribute to the following objectives: **(1)** assess how shellfish of commercial and ecological importance to Ireland may perceive sound and its disturbance (noise pollution), **(2)** measure the potential adverse impacts of anthropogenic noise 'stress' on marine shellfish (physiology), and, **(3)** develop a noise sensitivity index.

Salary: Postdoctoral Researcher salary scale €44,846 - €57,332 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 21st 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 work in the the Invertebrate PathoSystems Lab under the supervision of Dr. Christopher Coates to investigate the putative adverse (or neutral) impacts of vibration and noise from offshore wind turbines on shellfish health.

Duties:
Research

- An extensive review (meta-analysis, synthesis) on existing evidence related to noise pollution and ocean health with particular attention to sound perception in marine invertebrates, and operational welfare indicators (biomarkers)
- Perform dissections and imaging of putative mechano-sensory structures (cells, tissues and organs) using histology, and a series of microscopy-related approaches
- Develop a noise sensitivity index for marine shellfish (of commercial relevance)
- Gather spatial data on fisheries, shellfish distribution and offshore wind developments (current and future) around the Island (if available)
- Engage with project stakeholders, including external collaborators and project sponsor.
- Define research objectives and proposals for own (or joint) research in line with research strategy whilst contributing to the research programme of the Invertebrate PathoSystems Lab. This will be under general guidance of the PI/ Project Leader.
- Actively participate as a member of a research team and assist an individual research leader or team to conduct a particular study (or group of studies).
- Keep up to date with research related methods and techniques, in particular, developments around noise-related pathology and noise assessments for offshore wind turbines.
- Provide assistance in conducting research activities, including planning, organising, conducting and communicating research studies within the overall scope of the research project.
- Coordinate and perform a variety of independent tasks and team activities involved in the collection, analysis, documentation and some interpretation of information/results.
- Present information on research progress and outcomes to others responsible for the research project. The postdoctoral researcher will make use of standard research techniques and methods.
- Conduct literature and database searches and interpret and present the findings of said searches as appropriate.
- Assist in analysis and interpretation of results of own research.
- Collaborate with colleagues on areas of shared research interest.
- Develop knowledge and understanding of the policy, practices and procedures, relevant to the role, notably research ethics, health and safety, and the use of invertebrates in experimentation

Dissemination

- Write up results from own research activity (e.g. as project report) for review by PI, including preparing technical reports, conclusions and recommendations.
- Contribute to the publication of findings.

- Provide input into the research project's dissemination, in whatever form (report, papers, chapters, book) as directed by the PI/project leader.
- Present on research progress and outcomes, e.g., to bodies supervising research; steering groups; other team members, as agreed with the PI/project leader.
- Attend and contribute to relevant meetings/conferences, including outreach activities
- Lead the writing of international peer-review journal publications, as well as contributing to other peer-review publications.

Other

- Keep appropriate records as directed and in line with Funder/University policy**,** including a catalogue of sound/sensory associated structures in relevant marine shellfish
- Manage own personal and research resources (where required, laboratories and specialist equipment) appropriately; assume technical responsibilities for their laboratory work, and organisation of the field work campaigns
- Support and, where appropriate, co-supervise the work of students, e.g. final year project students.
- Gain experience in grant writing and participate in internal/ external networks for the exchange of information and to form relationships for future research collaboration.
- Continue to update knowledge and develop skills.
- Develop internal and external contacts with researchers in related areas.
- May contribute to work of the College/School/Research Unit through activities such as student Open Days, other promotion activity as appropriate.
- Any other duties assigned commensurate to this level of post.

ELIGIBILITY REQUIREMENTS

- **Essential Requirements:**

- PhD in Biology, Marine Sciences, Zoology, or equivalent.
- Experience in carrying out field sampling and wet laboratory work related to marine animals
- Proficiency in dissections of marine invertebrates and microscopy-led investigation of cells and tissues (e.g., histology, fluorescence, electron microscopy)
- Experience and use of data analysis software (e.g., R, GraphPad PRISM)
- Evidence of scientific publication and dissemination of results at conferences and/or journals.
- Excellent verbal and written communication skills (English language).

Desirable Requirements:

- Knowledge of sound perception and associated organ architecture in marine invertebrates
- Experience and use of GIS (Geographic Information System)
- Experience and use of computerised tomography (CT) scanning of tissues
- Demonstrable experience in both independent and collaborative research.
- Evidence of innovative thinking, able to work both independently and in cross-disciplinary teams.
- Appropriate supervisory or teaching experience may be an advantage.

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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**: Jobs - University of Galway. Applications must be submitted online.
  - How to apply guide

- For informal enquiries, please contact Dr Christopher Coates, Principal Investigator (Invertebrate PathoSystems Lab), School of Natural Sciences,
  E- mail: christopher.coates@universityofgalway.ie

- University's Strategic Plan
- Working in Research at University of Galway
- Moving to Ireland (Euraxess)
- Applicant Information
- 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.

The University is committed to embracing opportunities for hybrid working, to build a more dynamic, agile and responsive University, while sustaining strong standards of teaching, learning, research and high levels of productivity. The University will continue to be the primary workplace for all staff, however individual hybrid arrangement requests can be reviewed with the Line Manager in conjunction with the University Hybrid Working Policy.

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