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| <b>Research Centre:</b>    | <b>DCU Water Institute</b>  |
| <b>Post title:</b>         | <b>Post-Doctoral Fellowship in environmental analytical science for marine chemical screening</b> |
| <b>Level on Framework:</b> | <b>Level 1</b>  |
| <b>Post duration:</b>      | <b>4 Year Fixed Term Contract</b>   |

### **Research Career framework**

As part of this role the researcher will be required to participate in the DCU Research Career Framework. This framework is designed to provide significant professional development opportunities to researchers and offer the best opportunities in terms of a wider career path. DCU has a strong track record in attracting both Irish and European Union research funding under Horizon 2020 (and all previous Framework Programmes), Marie Curie Actions and Erasmus. We offer a dynamic and internationally-focused environment in which to advance your academic career.

### **Background**

Irish Marine Screening and Assessment of Emerging Contaminants in Coastal and Transitional Environments (I-SECURE) is a collaborative project, led by the DCU Water Institute with the Irish Marine Institute, University of Portsmouth, RECETOX and Agilent.

Anthropogenic contaminants reach the marine environment from land-based sources, but there are cases in which they are emitted or re-mobilised in the marine environment itself. The **I-SECURE project** involves the study of **sources and occurrences of contaminants of emerging concern (CECs)** in the marine coastal and transitional waters. The project will review and evaluate the **potential application of novel approaches** (high resolution screening, passive sampling, effect-based methods and vulnerability assessment) in future **risk-based** water quality assessment for CECs.

This is an exciting opportunity for a passionate scientist with a keen interest in research involving the chemicals in the coastal and marine environment. The post-doctoral fellow will engage with

relevant **national and international networks**, exploring opportunities for collaboration and securing research funding under Horizon Europe. This fellowship will **build national expertise** in this important research area.

**Duties and Responsibilities:**

- Enable the growth in capacity of chemicals of emerging concern (CEC) monitoring in Ireland;
- Deliver novel data and new compound information;
- Aid in the prioritisation of monitoring locations and chemical groups in support of policy objectives e.g. national (and OSPAR) pollutants listings;
- Identify risk-based approaches for marine monitoring;
- Show impacts of chemicals on marine biota; and provide data that can be archived for comparisons with international databases.
- Any other duties as required

**Qualifications and Experience:**

**Essential criteria:**

The post will require a researcher who holds a PhD in a relevant field such as analytical science, environmental analytical chemistry or a related discipline.

**Desirable criteria:**

In addition, it is desirable that applicants have experience in the following areas: Experience in chromatography with mass spectrometry and skills in high resolution MS would be an advantage. Good data analysis skills and evidence of project management skills are also an advantage. Evidence of working in multidisciplinary teams and ability to communicate across disciplines is desirable. Sampling campaigns at sea may form part of this work to generate samples for sample analysis. Candidates should have a strong interest in the marine environment and/or environmental science.

**Candidates will be assessed on the following competencies:**

**Discipline knowledge and Research skills** – Demonstrates knowledge of a research discipline and the ability to conduct a specific programme of research within that discipline.

**Understanding the Research Environment** – Demonstrates an awareness of the research environment (for example funding bodies) and the ability to contribute to grant applications.

**Communicating Research** – Demonstrates the ability to convey their research with their peers and the wider research community (for example presenting at conferences and publishing research in relevant journals) and the potential to teach and tutor students.

**Managing & Leadership skills** - Demonstrates the potential to manage a research project including the supervision of undergraduate students.

### **Mandatory Training**

Post holders will be required to undertake the following mandatory training: Orientation, GDPR, and Compliance. Other training may need to be undertaken when required.