



## JOB DESCRIPTION

<b>Research Centre</b>	School of Physical Sciences
<b>Post title</b>	Postdoctoral Researcher Sustainable Biomaterials
<b>Level on Framework</b>	Postdoctoral Researcher (Level 1)
<b>Post duration</b>	11 month fixed-term contact

### **Dublin City University**

Dublin City University (DCU) is a young, ambitious and vibrant university, with a mission 'to transform lives and societies through education, research, innovation and engagement'. Known as Ireland's 'University of Enterprise', DCU is a values-based institution, committed to the delivery of impact for the public good. DCU was named Sunday Times Irish University of the Year 2021.

DCU is based on three academic campuses in the Glasnevin-Drumcondra region of north Dublin. More than 18,000 students are enrolled across five faculties – Science and Health, DCU Business School, Computing and Engineering, Humanities and Social Sciences and DCU Institute of Education.

DCU is committed to excellence across all its activities. This is demonstrated by its world-class research initiatives, its cutting-edge approach to teaching and learning, its focus on delivering a transformative student experience, and its positive social and economic impact. The university continues to develop innovative programmes in collaboration with industry, such as the DCU Futures suite of degrees, which are designed to equip graduates with the skills and knowledge required in a rapidly evolving economy.

DCU's pursuit of excellence has led to its current ranking among the top 2% of universities globally. It is also one of the world's Top Young Universities (QS Top 100 Under 50, Times Higher Top 150 Under 100). In the Times Higher Education University Impact Rankings 2021, DCU ranked 23rd in the world for its approach to widening participation in higher education and its ongoing commitment to eradicating poverty, while it ranks 38th globally for its work in reducing inequality and 89th globally for gender equality.

The university is ranked 23rd in the world and first in Ireland for its graduate employment rate, according to the 2020 QS Graduate Employability Rankings. Over the past decade, DCU has been

the leading Irish university in the area of technology transfer, as reflected by licensing of intellectual property.

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.

### **Background & Role**

The School of Physical Sciences at Dublin City University invites applications for a postdoctoral researcher in material science and biology to work on a collective project on the design and testing of compostable, single-use, polymer laboratory components. The position is available from May 2022, initially for 11 months, with the option to extend for a further 13 months.

The goal of this specific project is to design, build and test compostable polymer laboratory components to determine if the material can meet chemical, biological, mechanical, and regulatory applicability as laboratory consumables products and to work with colleagues across the project to modify the properties of the polymer to increase its capabilities. The project will involve collaboration with the Schools of Chemical Sciences, Biotechnology, and Nursing, Psychotherapy and Community Health in Dublin City University.

### **Principal Duties and Responsibilities**

Reporting to his/her Principal Investigator the Postdoctoral Researcher will:

- Conduct a specified programme of research under the supervision and direction of the Principal Investigator, with a specific focus on the design and testing, including biological compatibility testing of compostable polymers.
- Engage in the dissemination of the results of the research in which he/she is engaged with the assistance of and under the supervision of the Principal Investigators (Dr Jennifer Gaughran and Dr Keith Rochfort), with a specific focus on the writing of high-impact papers, completing funding reports and preparing presentations and material for funding reviews.
- Supervise and assist undergraduate and postgraduate students working in this area with their research and management of RA staff working on the project.
- Liaise with both internal and external stakeholders including industry and academic partners/co-workers
- Engaging with other members of the project team and delivery of update presentations to larger project team.
- Carry out administrative work associated with the programme of research as necessary, including assisting the Principal Investigators in tendering for equipment and instruments required for the project

### **Minimum Criteria**

Applicants should have a PhD in physical sciences, molecular or microbiology, mechanical engineering or a related discipline. Practical laboratory experience **in either** materials design (CAD software)/testing, **or** animal/mammalian cell and/or microbial culture is essential. Candidates with experience in both materials science and biology are particularly welcome. Experience with benchmarking new materials against ISO standards is desirable. Applicants should be able to demonstrate their ability to work on multidisciplinary and high collective projects. Evidence of publication of research articles in relevant fields is also essential.

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

**Discipline knowledge and Research skills** – Demonstrates knowledge of a relevant 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 national funding bodies) and the ability to contribute to grant applications and project funding reviews

**Communicating Research** – Demonstrates the ability to communicate their research with their peers, the wider research community, and review panels

**Managing & Leadership skills** - Demonstrates the potential to manage and deliver on a research project including the supervision of undergraduate and postgraduate students

**Essential Training**

The post holder will be required to undertake the following essential compliance training: Orientation, Health and Safety, and Intellectual Property and Data Protection training. Other training may need to be undertaken when required.