Research Centre

Fraunhofer Project Centre for Embedded Bioanalytical Systems at Dublin City University (FPC@DCU) – a joint initiative of Science Foundation Ireland and Fraunhofer-Gesellschaft

Post Title

Research Assistant Supporting Development of Microfluidics-Based Systems for Cell Based Research

Post Duration

Fixed term until 31st October 2020

Background

Dublin City University (www.dcu.ie) is a research intensive, globally engaged, dynamic institution which has developed its own research specialists, established internationally recognized centres of excellence that have substantive collaborative links with leading universities and industrial partners. DCU is distinguished both by the quality and impact of its graduates and by its focus on the translation of knowledge into societal and economic benefit. Through its mission to transform lives and societies through education, research and innovation DCU acts as an agent of social, cultural and economic progress. DCU is Ireland’s fastest growing university and now hosts more than 17,000 students across its three academic campuses: DCU Glasnevin Campus, DCU St Patrick’s Campus and CU All hallows campus. 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.

FPC@DCU - an initiative jointly supported by Science Foundation Ireland and Fraunhofer-Gesellschaft - operates as a virtual institute (VI) headquartered in DCU and synergistically partners with a widely complementary mirror group within the Aachen-based Fraunhofer Institute for Production Technology (FhG-IPT). Within a joint development environment (JDE) aligning manufacturing and characterisation equipment, the Dublin branch leads microfluidic design, simulation, prototyping and fluidic testing as well as project acquisition and management while FhG-IPT is mainly accountable for the scale-up of production. FPC@DCU also benefits from its firm
embedding in DCU’s interdisciplinary environment and its proven-track record in translational research, and can thus act as a 1-stop-shop for offering integrated solutions to its customers, clients and partners.

The Project and Role

The FPC@DCU operates at the challenging crossroads of microsystems engineering and the life sciences. Common fields of application are in-vitro ("Point-of-Care") diagnostics, pharma, life-science research, agrifood and environmental monitoring. In this project, the post holder will develop microfluidics-based systems towards high technology readiness levels (TRLs) within the Fraunhofer Project Centre (FPC) for Embedded Bioanalytical Systems planned to be established at Dublin City University (DCU) in collaboration with the Fraunhofer Institute for Production Technology (IPT) in Germany. Furthermore, the post holder will assist the business development and project management teams of the FPC in their interactions with industry, academia and funding agencies.

Principle Duties and Responsibilities

Reporting to the FPC@DCU research group Principal Investigator technical duties will include but will not be limited to:

- Identification, experimental characterisation, optimisation and benchmarking of cell-based and molecular biology assays implemented on microfluidic systems
- Operation and maintenance of bioanalytical characterisation equipment and infrastructure
- Conduct, with a very high degree of technical competence, a specified programme of research and scholarship under the supervision of the PI or a manager assigned to him / her
- Assist the dissemination of research outcomes in which he/she is engaged including funder reporting, industrial demos and publishing in high quality peer reviewed journals of international standing.
- Assist the PI and research group in the development and implementation of the broader research programme.
- Assist as required, the development of proposals for research funding.
- Contribute to support of graduate research students associated with your research group.
- Take ownership as requested for report generation, and administration associated as well as site visit preparation and other administrative work associated with the programme of research and the research group
Additional duties will include:

- Assisting project management, reporting and interactions with partners
- Gain experience and contribute to grant writing with the support of and under the supervision of the Principal Investigator
- Engage in the dissemination of the results of the research in which they are engaged, as directed by, with the assistance of and under the supervision of the Principal Investigator
- Engage in appropriate training and professional development opportunities as required by the Director, FPC@DCU or University in order to develop research skills and competencies.
- Interact closely with postgraduate research students associated with the same research group and possibly have an established role in assisting these students in their day to day
- Assist collaboration with industry in areas relevant to the FPC@DCU.

Qualifications, Skills and Experience Required:

The candidate will hold a primary degree (NFQ Level 8) in a relevant discipline with at least three years of experience research in a higher education field or hold a doctoral degree or in the final stages of a doctorate in research in this field.

The candidate should possess the following skills:

- A proven track record of team working as well as well-defined experience handling select aspects independently.
- High technical expertise and familiarity with the operations of a scientific laboratory environment
- A self-starting attitude combining a proven ability to prioritize workload and work to strict deadlines.
- Excellent written and oral proficiency in English (essential)
- Excellent oral, verbal communication and social skills.

Mandatory Training

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