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 Fellow in Microfluidic systems
Level on Framework	Level 2
Post duration	Fixed term until 31 December 2021

Research Career Framework

As part of this role the researcher will be required to participate in the DCU Research Career Framework http://dcu.ie/hr/ResearchersFramework/index.shtml. 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.

An exciting senior research position in a very innovative, applied research initiative in Dublin City University – Ireland's University of Enterprise. FPC@DCU – the Fraunhofer Project Centre for Embedded Bioanalytical Systems at Dublin City University - engineers next-generation life-science technologies for the benefit of people and societies. In this role you will have access to competent technical, infrastructural and administrative support and the opportunity to evolve a multi-facetted skillset in an environment where you closely collaborate with world-class Irish and international companies and research organisations. Further career opportunities will arise with the success of the FPC.

Background & Role Profile

In this role you will develop microfluidics-based systems towards high technology readiness levels (TRLs) in collaboration with the Fraunhofer Institute for Production Technology (IPT) in Germany. FPC@DCU – Ireland's first Fraunhofer initiative - 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. Furthermore, you will lead research projects within FPC@DCU and support its business development and project management teams in their interactions with industry, academia and funding agencies.

Principal Duties and Responsibilities

The duties of the post include but are not limited to:

- Technical management and reporting of research projects
- Leading development of FPC microfluidic platform towards application areas set our as key targets.
- Development of microfluidic "Lab-on-a-Chip" systems supported by thorough design experimental characterisation and testing.
- Development of advanced manufacturing processes for high-TRL, polymer-based microfluidic systems
- Development of support instrumentation and detection platforms
- Bioassay optimisation on microfluidic "Lab-on-a-Chip" systems;
- Support of project acquisition from industry and funding agencies;
- Support of project management, reporting and interactions with partners;
- Internal technical reporting on projects;
- Authoring of scientific publications and marketing activities;
- Related administrative tasks.

Minimum Criteria
Applicants must hold a PhD in a relevant field. At least 4 years of relevant postdoctoral research experience or equivalent at Level I of the Research Career Framework.

In addition, it is desirable that applicants have experience in in the following areas: microfluidics (esp. centrifugal) and their applications in point-of-use & bio-analytical automation scenarios, background in polymeric micro-systems and surface engineering/material science and micro/nano-sensors and MEMS. A track record of acquiring independent funding.

Candidates will be assessed on the following competencies:

Discipline knowledge and Research skills – Demonstrates the ability to design and implement part of a programme of research (for example by using critical thinking and the application of relevant research methodologies).

Understanding the Research Environment – Demonstrates a thorough understanding of the research environment both nationally and internationally and the ability to contribute substantially to grant applications.

Communicating Research – Demonstrates the ability to communicate their research effectively to the research community and wider society (for example by publishing their research in high quality peer reviewed journals) and the ability to teach and tutor students.

Managing and Leadership skills - Successfully manages research projects including the management and supervision of postgraduates and/or junior research staff.

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