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

Post title: Postdoctoral Researcher in integrated microfluidic assay platforms (Three Positions)

Level on Framework: Level 1

Post duration: Fixed term until 31 December 2019

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](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 research position in a very innovative, applied research initiative embedded in Dublin City University – Ireland’s University of Enterprise. The technology-led FPC 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-faceted 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

To 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. The FPC@DUC 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 support the business development and project management teams of the FPC in their interactions with industry, academia and funding agencies.
**Principal Duties and Responsibilities**

Reporting to the FPC director or a manager appointed by him. Duties will include but will not be limited to:

- Conduct a specified programme of research within the Core Platform and/or Pilot Applications programme of the FPC@DCU under the supervision and direction of the Director of the project centre.
- Application driven development of microfluidics-based systems towards high TRLs along the design-for-manufacture paradigm of the FPC@DCU
- Support of 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 support of and under the supervision of the Principal Investigator
- Authoring of scientific publications, technical reports and marketing activities
- 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 agreed role in supporting these students in their day to day research in conjunction with an academic supervisor
- Take leadership and contribute to generation of papers, reports and funding proposals.
- Actively publish research findings in high impact journals and at key conferences as part of the FPC@DCU effort to disseminate research outputs.
- Carry out administrative work to support the programme of research where required, including regular funding agency reports and internal reports etc.
- Carry out additional duties as may reasonably be required within the general scope and level of the post.
- Support collaboration with industry in areas relevant to the FPC@DCU.

The role will involve domestic and international travel.

**Minimum Criteria**

Applicants must have a PhD and already have or can convincingly demonstrate a keen interest to acquire relevant experience in the design, manufacture and application development microfluidics-based sample-to-answer solutions for decentralised bioanalytical testing and to develop project management and business development skills in order to decisively contribute to its commercial focus. A background in a subset of the following areas is required:

- Development of biological assays, in particular immunoassays and/or clinical chemistry assays.
- Design and development of microfluidic platforms/lab-on-a-chip systems.
- Materials engineering, in particular the biofunctionalisation of polymer materials.
- Polymer microfabrication techniques and rapid prototyping.
- CAD/CAM software.

**Salary:** €35,489 - €46,255

*Appointment will be commensurate with qualifications and experience will be made on the appropriate point of the salary scale, in line with current Government pay policy.

**Closing date:** 3rd July 2017

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

**Discipline specific knowledge and Research Skills** (demonstrates knowledge of a research discipline and the ability to conduct a specific programme of research within that discipline)

**Communicating Research** (Demonstrates the ability to communicate 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)

**Understanding the Research Environment** (demonstrates an awareness of the research environment( e.g. funding bodies) and takes responsibility for how their research is conducted)

**Informal enquiries to:** Prof. Jens Ducrée (jens.ducree@dcu.ie)

**Application Procedure:**

Application forms are available from the DCU Current Vacancies (Open Competitions) website at [http://www4.dcu.ie/hr/vacancies/current.shtml](http://www4.dcu.ie/hr/vacancies/current.shtml) and also from the Human Resources Department, Dublin City University, Dublin 9. Tel: +353 (0)1 700 5149; Fax: +353 (0)1 700 5500 Email: hr.applications@dcu.ie

Applications should be submitted by e-mail to hr.applications@dcu.ie or by Fax: +353 (0)1 700 5500 or by post to the Human Resources Department, Dublin City University, Dublin 9.

**Please clearly state the role that you are applying for in your application and email subject line:** Job Ref 589 Postdoctoral Researcher in integrated microfluidic assay platforms

*Dublin City University is an equal opportunities employer*