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 in manufacture, testing and validation of biomedical micro-devices.

Post duration
Fixed term contract up to 9 months.

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.

Fraunhofer Project Centre for Embedded Bioanalytical Systems at Dublin City University – Ireland’s University of Enterprise (FPC@DCU) is a technology-led centre that develops next-generation life-science technologies for the benefit of people and society.

The Project
An exciting research position is available in a very innovative, applied research initiative embedded in Dublin City University – Ireland’s University of Enterprise. The technology-led FPC@DCU engineers next-generation life-science technologies for the benefit of people and societies in partnership with the Fraunhofer Institute for Production Technology (IPT) in Germany. Common fields of application are in-vitro (“Point-of-Care”) diagnostics, pharma, life-science research, agrifood and environmental monitoring. FPC@DCU therefore operates at the stimulating crossroads of microsystems engineering and the life sciences. The current project aims at demonstrating a microfluidic solution towards applications in Next Generation Sequencing. Based on its extensive expertise and background IP in microfluidics, the FPC@DCU will develop an affordable, automated system, which delivers reproducible, high-quality outputs while minimising reagent use.
Candidate Role

The role involves assisting in the development of microfluidics-based systems towards high technology readiness levels (TRLs) within FPC@DCU. In this role you will have access to proficient technical, infrastructural and administrative assistance and the opportunity to evolve a multi-facettted 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. You will also assist 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 project Principal Investigator, technical duties will include but will not be limited to:

- Conduct a specified programme of research within the NGS PREP Enterprise Ireland Commercialisation Fund Project under the supervision of the project PI.
- Microfabrication, assembly and testing of microfluidic prototypes.
- Assist development and testing of the appropriate device and sample preparation protocols required to facilitate microfluidic technology application.
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- Assist, quality control and testing of developed microfluidic products
- 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.

Qualifications, Skills and Experience Required:

Applicants must hold a primary degree (NFQ Level 8 and above) in a relevant discipline and should have at least have 1 year of relevant job experience. Under overall guidance of a researcher, you should have a proven track record of working in a team as well as well-defined experience handling select aspects objectively.

Familiarity with the operations of a scientific laboratory environment especially in the next generation sequencing and microfluidic areas would be highly desirable. A self-starting attitude, good social skills and high technical expertise are a prerequisite. The successful candidate can convincingly demonstrate the background, experience, willingness and capability to assist transfer of bioanalytical methods to microfluidics-based technologies, e.g. for manufacture and testing of devices that enable handling and decentralised sample-to-answer testing of biological samples.

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