Research Centre

INSIGHT/NCSR

Post title

Postdoctoral Researcher in Reagent Based Microfluidics (TIDA Award)

Post duration

Up to 10 months

Background:
The INSIGHT Research Centre for Big Data Analytics (http://www.insight-centre.org) is a joint initiative between researchers at University College Dublin, NUI Galway, University College Cork, and Dublin City University, as well as other partner institutions. It will bring together a critical mass of more than 200 researchers from Ireland's leading ICT centers to develop a new generation of data analytics technologies in a number of key application areas.

The €85m center is funded by Science Foundation Ireland and a wide range of industry partners. INSIGHT’s research focus encompasses a broad range of data analytics technologies and challenges, from machine learning, decision analytics and social network analysis to linked data, recommender systems and the sensor web. And together with more than 30 partner companies INSIGHT researchers are solving critical challenges in the areas of Connected Health and the Discovery Economy.

The Project:
Funded by SFI under a TIDA award, this project seeks to implement reagent (colorimetric) based methods into a variety of microfluidic platforms, but particularly CD-based microfluidics in which the rotation of the CD platform is used to control fluid movement within the microfluidic channels. The goal is to demonstrate successful implementation of methods such as the Indophenol (ammonia), Griess (nitrite/nitrate), and the molybdate (phosphate) method in a microfluidic platform. The successful candidate will join the Adaptive Sensors Group (http://www.dcu.ie/chemistry/asg/index.shtml), which is supported by the National Centre for Sensor Research (www.ncsr.ie), and is that part of the INSIGHT Centre focused on materials chemistry and the development of platforms for delivering highly effective autonomous chemical sensing capabilities.

Principle Duties and Responsibilities:
Reporting to the Principal Investigator, Professor Dermot Diamond, the Postdoctoral Researcher will:

- Conduct a specified programme of research under the supervision and direction of the Principal Investigator focused on extending the current state of the art environmental monitoring, and implementing these into portable microfluidic based instruments
- Assist in identifying and developing future research and funding initiatives
- Engage in the dissemination of the results of the research in which he/she is engaged with the support of and under the supervision of the Principal Investigator
- Supervise and assist undergraduate students working in this area with their research
- Engage in appropriate training and development opportunities as required by the Principal
Investigator, the School or Research Centre, or the University

- Liaise with both internal and external project stakeholders including industry and academic partners/collaborators
- Carry out administrative work associated with the programme of research as necessary

**Minimum Criteria:**
Applicants must hold a PhD in which environmental chemistry, analytical chemistry, or microfluidics was a significant component. Experience in reagent-based methods (colorimetric) would be an advantage. The ideal candidate will also have experience in aspects of engineering related to the development of portable analytical devices.

**Salary:**

€37,750 - €41,181

*Subject to qualifications and experience*

**Closing date:** 10th January 2014

**Informal enquiries to:**
Professor Dermot Diamond, INSIGHT, Dublin City University, Dublin 9, E-mail: Dermot.Diamond@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 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.

*Dublin City University is an equal opportunities employer*