Postdoctoral Researcher, Level 1
Wearable Chemical Sensing Platforms for Real-Time Sweat Analysis

18-month contract

Adaptive Sensors Group, Insight Centre for Data Analytics, National Centre for Sensor Research, Dublin City University

Overview
The Adaptive Sensors Group (ASG, see www.dcu.ie/chemistry/asg/) is a large, multidisciplinary research unit hosted by the National Centre for Sensor Research (NCSR), in state-of-the-art facilities situated on the campus of Dublin City University. Core funding for the ASG is provided by Science Foundation Ireland through the Insight Centre (https://www.insight-centre.org), supplemented by significant project based income provided by Enterprise Ireland, the Marine Institute, The EPA, EU-FP7, and Industry partners.

The successful candidate will play a leading role in developing and validating wearable platforms for sweat analysis that integrate sweat sampling, fluidic handling, multi-component analysis via an electrochemical sensor array, electronics and wireless communications, and customised software (mobile phone APP). This position is funded under the Enterprise Ireland Innovation Partnership programme (Next Generation Wearable Sensors for Monitoring Sweat Composition in Real-Time, Contract No: IP 2016 504), in partnership with, Realtime-Shimmer Ltd. based at DCU-Alpha Innovation Campus. The role is primarily focused on electrochemical sensor development (solid-state ion-selective electrodes, reference electrodes and amperometric enzyme electrodes), and the successful integration of these sensors into the sweat monitoring platform. While this project mainly deals with development of wearable chemical sensing of sweat composition, he/she will contribute to the group’s overall research effort in autonomous sensing devices. He/she will join a multidisciplinary team that functions on the basis of mutual support across a range of projects, drawing on combined team expertise in mechanical/electronic engineering, computer science, wireless communications, web database management, environmental science, materials science, and analytical chemistry.

Research Career Framework
As part of this role you 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.

Duties and Responsibilities:
Reporting to Professor Dermot Diamond and Dr. Margaret McCaul, the successful candidate will;
• Deliver the technical and administrative deliverables associated with the project
• Maintain close interaction with the industry partner throughout the project
• Assist with management and administration research of related projects, through co-supervision of postgraduate students, generation of technical and administrative reports, and organisation of/attendance at project meetings.
• Deliver teaching modules for degree courses as agreed with the project PI and relevant head of School.
• Participate in the DCU Researcher Career Development process
• Identify funding opportunities and assist with the preparation of H2020 and other funding proposals
• Assist with the managements of relationships with external industry and academic partners
• Attend and contribute to ASG meetings and maintain an active profile on the ASG/NCSR website
• Contribute positively to the overall research reputation of the ASG, and through it, INSIGHT and the NCSR.

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.

Qualifications and Experience
Candidates should have a primary degree in which materials science or analytical chemistry was a significant component, and a doctorate in which electrochemistry and/or materials characterisation played a significant part.
Ideally, candidates should have experience in electroanalytical chemistry, microfluidics, materials chemistry, and/or analytical method development and validation.
Previous experience with on-body chemical sensing is not necessary but would be an advantage.

Closing date: 14th November 2019
Salary Scale: €37,874 - €45,041 per annum*
*Appointment will be commensurate with qualifications and experience

Candidates will be assessed on the following competencies:

Discipline knowledge and Research skills – Demonstrates knowledge of a research discipline and the ability to conduct a specific programme of research within that discipline
Understanding the Research Environment – Demonstrates an awareness of the research environment (for example funding bodies) and the ability to contribute to grant applications
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

Application Procedure
Informal enquiries to:
Professor Dermot Diamond; dermot.diamond@dcu.ie

Please do not send applications to this email address, instead apply as described below
Please clearly state the role that you are applying for in your application and email subject line: Job Ref #RF1286 Postdoctoral Researcher, Level 1 Wearable Chemical Sensing Platforms for Real-Time Sweat Analysis

Application forms are available from the DCU Current Vacancies (open Competitions) website at http://www.dcu.ie/vacancies/current.shtml and also from the Human Resources Department, Dublin City University, Dublin 9. Tel:+353 (0) 1 7005149.

Applications should be submitted with a full CV and Cover Letter by email to hr.applications@dcu.ie or by Fax: +353 (0)1 7005500 or by post to the Human Resources Department, Dublin City University, Dublin 9.

Dublin City University is an equal opportunities employer and is committed to promoting gender equality reflected in its attainment of the Athena SWAN Bronze Award. Information on a range of university policies aimed at creating a supportive and flexible work environment are available at www4.dcu.ie/policies/policy-starter-packs.shtml