

<b>Research Centre</b>	National Centre for Sensor Research
<b>Post title</b>	Post-Doctoral Researcher Sensing SubCutaneously INvitro (SSCIN) Project
<b>Level on Framework</b>	Level 1
<b>Post duration</b>	12 Months

As part of this role the researcher will be required to participate in the DCU Research Career Framework. This framework is designed to provide significant professional development opportunities to Researchers and offer the best opportunities in terms of a wider career path.

### **Background**

Sensing SubCutaneously INvitro (SSCIN) is a Science Foundation Ireland Funded Project within the National Centre for Sensor Research ([www.ncsr.ie](http://www.ncsr.ie)) at Dublin City University. This programme is being run in conjunction with collaborators at St. Vincent's University Hospital. Arising from this programme, a Post-Doctoral position is now available in Dr. Morrin's research group as summarised below.

### **Role**

New minimally-invasive or even non-invasive approaches to monitor various components of skin are emerging as exciting and potentially disruptive clinical tools. The new role will involve delivering on new, innovative and cutting-edge approaches to epidermal-based monitoring to gain physiological information that underpins health status. The overarching emphasis will be on delivering minimally- and non-invasive devices for point-of-care skin diagnostics. Applications of interest include hydration monitoring, skin gas sensing and early stage skin cancer detection. Examples of diagnostic platforms include conducting skin patches, skin tattoos and smart magnetic particles. Research areas underpinning these applications include materials science, sensor development, circuit design and fabrication.

### **Principal Duties and Responsibilities:**

Reporting to his/her Principal Investigator the Postdoctoral Researcher will:

- Conduct a specified programme of research on epidermal sensing employing capacitive and electrochemical transduction techniques.
- Deliver research outputs and provide input into reports as required according to project management schedules.
- Help supervise and assist undergraduate and postgraduate students working in this area with their research.
- Participate in clinical studies at St. Vincent's University Hospital.
- Attend and present results at project technical progress meetings.

- Liaise with both internal and external stakeholders including clinical, industrial and academic partners/collaborators.
- Maintain an up-to-date profile on the group website.
- Engage in the dissemination of the research at international conferences and publish research outputs in high impact international journals.
- Assist in identifying and developing future research and funding initiatives.
- Engage in appropriate training and development opportunities as required by the Principal Investigator, the School or Research Centre, or the University.
- Engage in teaching and teaching support as assigned by and in agreement with the Head of School, under the direction of the Principal Investigator.
- Carry out administrative work associated with the programme of research as & when necessary.

### **Experience and Qualifications**

Candidates must have a primary degree and PhD in which the Analytical or Physical Sciences were a significant component. A strong focus on aspects of electrochemical and/or capacitive sensor design and materials science should be evident. Experience in circuit design and fabrication, microcontroller programming and systems integration would be advantageous.

**Salary: €37,750 - €41,181**

Appointment will be commensurate with qualifications and experience.

**Closing Date: Tuesday 5<sup>th</sup> May, 2015**

**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 projects including the supervision of undergraduate students.

### **Application Procedure**

#### **Informal enquiries to:**

Dr. Aoife Morrin, School of Chemical Sciences, National Centre for Sensor Research, Dublin City University, Dublin 9

E-mail: [aoife.morrin@dcu.ie](mailto:aoife.morrin@dcu.ie)

*Please do not send applications to this email address, instead apply as described below*

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 by email to [hr.applications@dcu.ie](mailto:hr.applications@dcu.ie) or by Fax: +353 (0)1 7005500 or by post to the Human Resources Department, Dublin City University, Dublin 9. Human Resources Department, Dublin City University, Dublin 9. Tel: +353 1 700 5149; Fax: +353 1 700 5500 Email: [hr.applications@dcu.ie](mailto:hr.applications@dcu.ie)

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