Research Centre	Biomedical Diagnostics Institute
Post title	Postdoctoral Researcher - RECANT Project
Level on Framework	Level I
Post duration	Fixed Term Contract - 1 year

Research Career Framework

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.

Overview

The Biomedical Diagnostics Institute (BDI) is a Science Foundation Ireland CSET (Centre for Science, Engineering and Technology). Established in October 2005, the BDI is an Academic-Business-Clinical partnership that carries out cutting-edge research programmes focused on the development of next-generation biomedical diagnostic devices. The BDI vision is to transform healthcare by pioneering advances in the science and technology of diagnostics and by translating these advances into clinical use.

BDI research addresses major clinical challenges informed by the partnership of clinicians, scientists and industry. Building on key scientific insights, the BDI will now apply its established capabilities to create integrated Point-of-Care solutions, which will have major impacts on diagnosing disease and sustaining human health.

Background & Role

This project is focused on generating and engineering antibodies to markers of cardiac disease, such as troponins. It will involve the use of a variety of molecular biological techniques to develop antibodies with high specificity and sensitivity to highly defined epitopes that can be applied to a range of diagnostic platforms. The Applied Biochemistry Group in the BDI have extensive expertise and success in this area and now seek to enhance our capabilities and utilise modelling and associated approaches to maximise antibody performance.

Principal Duties and Responsibilities

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

- Conduct a specified programme of research under the supervision and direction of the Principal Investigator (PI). This will involve:
    - Production and Engineering of antibodies with high specificity and affinity to selected antigens of diagnostic importance.
    - Use of 'state-of-the-art' molecular biological approaches to enhance antibody performance.
    - Design of appropriate assays for selection/characterisation of antibodies.
    - Large-scale production of antibodies using CELL CULTURE (MAMMALIAN AND BACTERIAL), salt precipitation and chromatography (HPLC, IMAC, FPLC, GEL FILTRATION and AFFINITY methods).
    - Antibody Characterisation using SDS PAGE, Western Blotting, Immunohistochemistry, ELISA and BIACORE.
- Mentor, assist and supervise postgraduate research students and junior research staff as required.
- Assist the PI in the management / co-ordination of key aspects of the research programme (e.g. financial management, reporting, equipment management etc.).
- Engage in the dissemination of research results under the supervision of the Principal Investigator.
- 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 the Head of School under the direction of the Principal Investigator.
- Engage with internal and external stakeholders including academic and industry partners/collaborators as appropriate.
- Carry out administrative work associated with the programme as necessary.
- Participate in BDI Centre activities, such as industry showcases and annual reviews.
- Produce top-quality journal and conference publications, in collaboration with the Principal Investigator (PI).

Minimum Criteria

The successful candidate must have a primary degree and Ph.D. in molecular biology and biochemistry. In addition, practical experience of cell culture, antibody production, protein expression, protein isolation and characterisation, ELISA, and antibody applications is essential.

The successful candidate will join a team with very significant expertise in the development of diagnostic antibodies, with an emphasis on recombinant approaches, and therefore must have extensive experience in molecular biological techniques including cloning, primer design, PCR, and mutational approaches. Previous experience in high throughout approaches and using the Biacore system is essential. Experience of protein, and preferably antibody, engineering and characterisation is essential as is expertise in the use of bioinformatics/modelling as applied to proteins would be important.

Salary: **€37,750 - €41,181**
Appointment will be commensurate with qualifications and experience.

Closing Date: Friday 9th October, 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 project including the supervision of undergraduate students

Informal enquiries to:
Informal enquiries to: Professor Richard O'Kennedy
Email: Richard.okennedy@dcu.ie
Please do not send applications to this email address, instead apply as described below.

Application Procedure

To apply for this role, applications should include a CV and covering letter and be submitted with the application form to the Human Resources Department as outlined 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.

Please clearly state the role that you are applying for in your application and email subject line: Job Ref 174 Post-Doctoral Researcher – RECANT Project

Applications should be submitted 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.Human Resources Department, Dublin City University, Dublin 9. Tel: +353 1 700 5149; Fax: +353 1 700 5500 Email: Insert hr.applications@dcu.ie

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