



## Research Job Description Template – Level 1

<b>Research Centre</b>	National Institute for Cellular Biotechnology
<b>Post title</b>	Postdoctoral Researcher Molecular Biology
<b>Level on Framework</b>	Level 1
<b>Duration</b>	Up to 4 Years

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 & Role

The NICB ([www.nicb.dcu.ie](http://www.nicb.dcu.ie)) is a multidisciplinary centre of research in fundamental and applied cellular biotechnology and molecular cell biology. It includes a multidisciplinary team of Cell and Molecular Biologists, Biotechnologists, Chemists and Computer scientists.

The Animal Cell Biotechnology group at NICB focus their research on understanding the molecular mechanisms underpinning recombinant protein productivity in Chinese Hamster ovary (CHO) cells. These cells are the dominant platform for the production of Biopharmaceutical drugs, e.g. monoclonal antibodies. These new drugs hold great promise in treating various diseases but currently are very expensive to produce in large quantities. By improving the ability of the CHO producer cells to make and secrete these proteins we hope to contribute to reducing this cost.

Specifically we apply 'omics technologies (proteomics and transcriptomics) to discover the networks of genes impacting on CHO cell phenotypes relevant to the bioreactor environment. Our ultimate goals are: 1) to identify genes as potential genetic engineering targets for improved Biopharmaceutical yield from CHO cells 2) to identify biomarkers useful for predicting the future behaviour of CHO cells in culture and 3) to better understand the molecular mechanisms involved in various industrially-relevant phenotypes, e.g. fast growth rates, resistance to apoptosis.

Recently much of this focus has been in the area of miRNA biology. These small, non-coding RNA molecules represent a critical regulatory layer within the cell at the post-transcriptional level and have great potential as pathway engineering targets.

The successful candidate will be involved in an exciting, SFI-funded research program implementing cutting edge molecular biology techniques to manipulate the expression of target miRNAs in CHO cells including using targeted genome engineering techniques such as CRISPR/Cas9 technology.

### **Principal Duties and Responsibilities**

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

- Conduct a specified programme of research under the supervision and direction of the Principal Investigator
- 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 postgraduate and other 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 stakeholders including industry and academic partners/collaborators

### **Minimum Criteria**

Applicants should have a PhD in Molecular Cellular Biology or related discipline. In addition, it is highly desirable that the candidate has considerable experience in molecular biology techniques including gene cloning, sequence analysis and manipulation. Practical experience with mammalian cell culture would also be considered beneficial.

**Salary: €37,750 - €41,181**

**Closing date: 22<sup>nd</sup> July 2014**

**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:**

**Dr.Niall Barron and Prof.Martin Clynes** , DCU, Dublin 9

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### **Application Procedure**

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.

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