



JOB DESCRIPTION

Postdoctoral Researcher in Molecular Biology & Postdoctoral Researcher in Metagenomics

**School of Biotechnology
Fixed Term Contract 6-11 Months**

At [DCU's School of Biotechnology](#), we are seeking a postdoc in molecular biology and a postdoc in metagenomics as part of a short-term project. This is to be part of an exciting project to explore human microbiome methods from integrated molecular and computational perspectives. The postdoc in molecular biology will work mainly in Professor Anne Parle-McDermott's [Molecular Genetics Lab](#), and the postdoc in metagenomics will work mainly in Assistant Professor Dr Tim Downing's [Infection Genomics Lab](#) (the latter can be in-person or remote).

Dublin City University

Dublin City University www.dcu.ie is a young, ambitious and vibrant University, with a mission 'to transform lives and societies through education, research, innovation and engagement'. Known as Ireland's 'University of Enterprise and Transformation', it is committed to the development of talent, and the discovery and translation of knowledge that advances society and the economy. DCU is the Sunday Times Irish University of the Year 2021.

The University is based on three academic campuses in the Glasnevin-Drumcondra region of north Dublin. It currently has more than 18,000 students enrolled across five faculties – Science and Health, DCU Business School, Computing and Engineering, Humanities and Social Sciences and DCU Institute of Education. DCU is committed to excellence across all its activities. This is demonstrated by its world-class research initiatives, its cutting-edge approach to teaching and learning, its focus on creating a transformative student experience, and its positive social and economic impact. This exceptional commitment on the part of its staff and students has led to DCU's ranking among the top 2% of universities globally. It also consistently features in the world's Top 100 Young Universities (currently in QS Top 70 Under 50, Times Higher Top 150 Under 100).

DCU is placed 84th in the world, in the Times Higher Education University Impact Rankings – measuring higher education institutions' contributions towards the UN Sustainable Development Goals. Over the past decade, DCU has also been the leading Irish university in the area of technology transfer, as reflected by licensing of intellectual property.

The School of Biotechnology

The School of Biotechnology is the academic unit leading life science education and research at DCU. It delivers two BSc undergraduate degrees in Genetics and Cell Biology (GCB), Biotechnology (BT) in addition to two taught MSc degree programmes in Bioprocess Engineering (MSBE) and Diagnostics & Precision Medicine (MSDPM). It has additional substantial input into undergraduate degrees in Analytical Science and Environmental Science and Technology. The School has a postgraduate

complement of research MSc/PhD students that train under its structured PhD graduate programme, BioTranslate. It is an active centre of basic, applied and multi-disciplinary research, supporting a defined cluster of intersecting research themes which link closely with School's teaching programmes. The School and associated research centres offer core facilities and technical support in the areas of Molecular Biology, Bioinformatics, Cell Characterisation, Proteomics and Bioprocessing. Research projects fall into either or both of the general categories of 'Health/Ageing/Disease' and 'Industry-Associated'. The excellence of School research is reflected by funding success from many national and international sources (including direct funds from industry) and the quality of its published and other outputs.

Role Profile

A post-doctoral position in molecular metagenomics and a post-doctoral position in computational metagenomics are available to progress a project funded by the European Institute of Innovation and Technology (EIT) under the guidance of Professor Anne Parle-McDermott and Assistant Professor Tim Downing. The successful candidates will join their teams to optimise bacterial DNA extraction and metagenomic profiling of microbiome samples from adults. Experience in molecular biology, nucleic acid extractions, prokaryote genomics, metagenomics and microbiology are desirable for the two candidates to perform: one in a molecular lab with Professor Parle-McDermott and one in a bioinformatics lab with Dr Downing.

Duties and Responsibilities

The duties and responsibilities of the position include, but are not restricted to, the following:

- Conduct a specified programme of research under the direction of the PIs.
- Document all experimental data, analyses and protocols.
- Contribute to reporting and tasks associated with your programme of research.
- Contribute to manuscript preparation relevant to the project.
- Report and present regularly at group meetings.
- Attend relevant meetings, seminars and conferences locally, nationally and internationally.
- Provide day-to-day advice and support of graduate research students where required.
- Contribute to teaching and outreach activities of the group.
- Liaise and communicate progress with internal and external collaborators.
- Engage in appropriate training and development opportunities as desired.
- Manage tasks and reporting associated with the programme of research as necessary.

Qualifications and Experience

Essential

- A PhD in microbiology, molecular genetics, genomics or bioinformatics as appropriate.
- Capable of working independently with a high degree of technical competence.
- A team player, they must demonstrate initiative, be hard working, versatile and productive.
- Excellent written and oral proficiency in English.
- Excellent communication skills.
- Ability to prioritise work and manage deadlines.
- Ability to work in a multi-disciplinary team and contribute to the success of the team.
- Relevant experience could include backgrounds in DNA extraction, DNA manipulation, environmental DNA analysis, genomics, microbiome analysis, bacteriology, computing and statistics.

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 convey 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 supervise and tutor students.

-Managing & Leadership skills - Demonstrates the potential to manage a research project including the supervision of undergraduate students.