

Research Assistant – Membrane Structural & Functional Biology Group @ TCD

Our group is interested in membrane structural, functional, and mechanistic molecular biology, macromolecular X-ray crystallography, cryo-electron microscopy, membrane lipids and proteins, membrane mimetics, robotics, structure-function relationships, and structure-based antibiotic, vaccine and antiviral drug design and development.

Within the group, **research assistants (RAs)** are tasked with supporting various projects concerning the structural and functional characterization of membrane protein drug targets. Some administrative duties are part of the job. RAs receive extensive training and are subsequently expected to work independently under the direction of senior lab members. Regular activities carried out in the group include:

- ☐ Production of recombinant membrane proteins (via *E. coli* and insect cell culture).
- ☐ Membrane protein purification (cell lysate treatments, ion exchange, affinity and size exclusion chromatography, gel electrophoresis).
- ☐ Protein activity assays by SDS PAGE, thin layer chromatography, and assorted spectroscopic methods.
- ☐ Protein structure work (crystallization via robot / manual screening, monitoring of trial progress, participation in diffraction and electron microscopy data collection).
- ☐ Plasmid fabrication / modification using standard molecular biology techniques.
- ☐ Fortnightly reporting on project progress.
- ☐ Regular presenting of projects in weekly group meetings.

Qualifications BSc degree with basic knowledge of molecular cloning, recombinant protein production, purification, and functional characterization. Experience in these areas is preferred but not necessary; on-the-job training will be provided for applicants who are eager to learn. The position is ideal for applicants looking to gain research experience before applying to MS/PhD programmes and for jobs in Pharma.

Salary €32,962 per annum

Principal Investigator Martin Caffrey

Lab Website <https://www.tcd.ie/Biochemistry/research/caffrey/>

Application Procedure Candidates are asked to submit a letter detailing education, training, and laboratory experience. In the letter, the candidate should outline why they feel they are suitable for the position in an interdisciplinary group that will involve extensive interaction with collaborators around the globe. The letter must be accompanied by a full CV to include the names and contact details of two referees (email addresses and phone numbers to be provided). At least one referee should be an individual the candidate has worked with and who has agreed to provide a letter of reference on the candidate's behalf. Applications should be emailed to: gopakums@tcd.ie

Application deadline The position will remain open until filled.