

Job Title: Research Associate
Salary: £39,355 to £45,413 per annum
Grade: 7
Department: Molecular and Cell Biology
Hours/Contract: Full-time/fixed term for up to 8 months
Job Family: Research
Job Reference: 11590

Role Purpose

This research is funded by the Leducq Foundation to study cholesterol transport in physiology and disease. The aim of this role is to study the structure of proteins and protein complexes that are involved in the transport of cholesterol from the plasma membrane to the endoplasmic reticulum. The role will primarily involve the use of NMR spectroscopy, but cryoEM approaches may also be employed. Crystallisation experiments will be also used to characterise the binding of small molecules that influence the function of cholesterol transporters, with the goal of developing drugs to regulate cholesterol transport.

Main Duties and Responsibilities

Research

- To undertake a specific role in a research project or projects, taking responsibility for some element(s) of the planned research
- To lead in the collection, evaluation and interpretation of the research data in experimental design and performance, and work autonomously to attain project milestones.
- To contribute to the development of the choice of techniques, critiques, approaches, models and methods
- To contribute to the overall research programme using innovative research models, novel approaches and techniques.
- In agreement with the line manager, liaise with project collaborators to progress the research
- To lead in writing up research findings for dissemination amongst the research team and broader international community, and develop ideas and contributions for future grants, technical outputs.
- To represent the research group by disseminating results/findings at national and international conferences and broader community.
- To contribute to research outputs as a co-author to journal articles, technical papers, monograph, book chapter.
- To develop and carry out a plan to extend an area of personal research, or contribute as a team member to the development of a broader programme, this may include contributing to the writing of research bids/grants.
- With the support of colleagues, identify opportunities to apply for fellowships and/or further project grants
- To provide guidance to other staff and students (involved in the research programme).
- To actively seek opportunities to carry out multi-disciplinary research with other research groups at the University or stakeholders external to the University, with the approval of the Principal Investigator (PI).



Professional Development

- Duties and opportunities to engage in work that support your own professional development.

Impact and Knowledge Exchange

- Network and contribute to the maintaining and furthering of the wider research programme and research area
- To contribute to industry collaborations
- To consult effectively on own specialism directly with people external to the University
- To engage positively and pro-actively in research impact

Leadership and Citizenship

- Guidance to other team members both research staff and students
- Pro-actively build networks and collaborations.
- Providing mentoring and coaching to Early Career Researchers and research students.

Internal and External Relationships

- Regular meetings with members of the programme research group
- Meeting members of the department for critical discussion of the research and exchange of new ideas and approaches that might benefit the research
- Liaison with external collaborators

Planning and Organising

You will be required to effectively manage your time to plan your research activity and to deliver on the priorities of the project:

- Prioritise tasks within agreed work schedules;
- Plan for specific aspects of research incorporating issues such as deadlines, project milestones and overall research aims;
- Adapt daily and weekly plans to accommodate new developments and be flexible to the changing priorities of the research project;

Qualifications, Knowledge and Experience

Essential

- PhD or equivalent in appropriate discipline or the equivalent professional qualification and experience *
- Evidence of a contribution to peer-reviewed journal papers or equivalent e.g technical report/writing a piece of software
- Substantial relevant research expertise in preparing isotope labelled proteins for NMR spectroscopy. *





- Experience of design, production and mutagenesis of protein expression constructs*
- Experience of expression and purification of large multi-protein complexes in mammalian cells*
- Experience of expression and purification of multi-protein mammalian protein complexes in E. coli*
- Experience of sample preparation for Crystallography and Cryo Electron Microscopy*
- Experience of data processing using POKY for NMR, CCP4 for crystallography and Relion for cryoEM*
- Evidence of interest and enthusiasm of working in the field of Structural Biology of cholesterol transport*
- Expertise in relevant approaches/models and analytical techniques and ability to develop new ones where required.

Skills, Abilities and Competencies

Essential

- Willingness and ability to work with internal and external stakeholders*
- Evidence of continued development of subject expertise*
- Excellent communication skills – written and verbal evidenced by the ability to communicate complex information *
- Evidence of working effectively as part of a team and the ability to work independently *
- Working towards independence and ability to be involved in collaborative research
- Evidence and commitment to Continuous Professional Development (CPD) for yourself, and encourage commitment to learn and develop in others
- Collegiate member of a research team

Desirable

- Budget management skills

****Criteria to be used in shortlisting candidates for interview***

Reason for Fixed Term Contract

The reason for the fixed term contract is stated in section 1.9 in the summary of contractual terms in your contract of employment.

Criminal Declaration

If you become an employee, you must inform your manager immediately, in writing, if you are the subject of any current or future police investigations/legal proceedings, which could result in a criminal offence, conviction, caution, bind-over or charges, or warnings.

Supporting University Activities

As a University of Leicester citizen, you are encouraged to support key university activities such as clearing, graduation ceremonies, student registration and recruitment open days. We encourage all staff





as citizens to work flexibly across the University if required. If supporting these activities is likely to affect your workload, please speak to your line manager in the first instance

University Values

Inclusive - We are diverse in our makeup and united in ambition. Our diversity is our strength and makes our community stronger.

Inspiring - We are passionate about inspiring individuals to succeed and realise their ambitions. We challenge our community to think differently, to get involved, and to constantly embrace new ideas.

Impactful - As Citizens of Change we will generate new ideas which deliver impact and empower our community

Equity and Diversity

We believe that equity, diversity and inclusion is integral to a successful modern workplace. By developing and implementing policies and systems that challenge stereotypes across all aspects of our work, we have a culture that recognises and values the diverse contributions of our staff which benefits everyone. Our strong values of inclusivity and equity support our efforts to attract a diverse range of high quality staff and students, and identify our University as a progressive and innovative workplace that mainstreams equity, diversity and inclusion.

