

**Job Title:** Research Associate - Synthetic Organic Chemistry/ Chemical Biology  
**Salary:** £39,105 to £41,421 per annum due to funding restrictions  
**Grade:** 7  
**Department:** Chemistry  
**Hours/Contract:** Full-time fixed term contract from 01 January 2025 to 31 December 2027  
**Job Reference:** 10546

## Role Purpose

Applications are invited for a Postdoctoral Research Associate position in Synthetic Organic Chemistry/ Chemical Biology funded by the Medical Research Council. This is an exciting opportunity to be a key researcher in an interdisciplinary project entitled 'Developing PROTACs for the target validation of individual Histone Deacetylase corepressor complexes'. This is a collaborative project between the groups of Dr James Hodgkinson (School of Chemistry and Leicester Institute of structural and Chemical Biology, LISCB), Professor John Schwabe (Department of Molecular and Cell Biology and LISCB) and Professor Shaun Cowley (Department of Molecular and Cell Biology). The project also involves collaborations with industrial partners Charnwood Discovery and TOCRIS bioscience, a Bio-Techne brand.

In this role you will primarily be based in the research lab of Dr Hodgkinson implementing the synthesis of novel proteolysis targeting chimera (PROTAC) libraries. The role is ideally suited to an early career researcher who is talented and creative in synthetic organic chemistry with a proven track-record in multi-step organic synthesis to complex/bioactive molecules. You will be inspired to design synthetic routes to novel PROTAC libraries and implement these routes to deliver PROTAC libraries for biological evaluation. Although your primary role will be as a synthetic organic chemist you will work as an integral member of an interdisciplinary team of researchers and actively engage in the interpretation of the biological results to further inform compound design. The successful candidate will also provide high level research skills in synthetic organic chemistry through personal expertise and contributions to the wider research team of Dr Hodgkinson, and will take a leading role in the presentation of results and manuscript preparation for publication/IP. This a 36-month position subject to completion of a probation period.

## Main Duties and Responsibilities

### Research:

- Design and implement synthetic routes to compound libraries of high purity for biological evaluation.
- Perform full characterisation of synthesised compound libraries using multiple analytical techniques including NMR, mass spec, HPLC and other techniques.
- Prepare final compound samples for biological evaluation.
- Keep excellent, accurate records and data collation and retention on research carried out throughout the project.
- Responsible for personal and collaborative research, resulting in significant contributions to project deliverables, scholarly articles, research papers suitable for publication, patent applications and conference presentations.
- Contributing to writing research proposals, manuscripts for publication and patent applications





- Contributing, as an experienced researcher, to determining the direction of the programme in line with reaching the research goals. This will include elements of research planning, project management.
- Co-supervision of research students and provision of advice and guidance to other members of the team, both research staff (PhDs and PDRAs) and students (undergraduates) including a mix of a desk-based and lab based research.
- Contribute to the overall research programme, testing and developing research strategies to enable work to be carried out that will result in the emergence of new understanding within the research field.
- Representing the research group at external meetings, project review meetings and workshops so as to improve the reputation of the group and that of the role holder.
- In agreement with the line manager, liaise with project collaborators to progress the research.

**Professional Development:**

- The candidate will be supported and encouraged to take up opportunities support professional development. This includes relevant training courses and conference presentations in agreement with the line manager.

**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 research students

**Internal and External Relationships**

Regular meetings and progress updates with members of the programme research groups.

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, including the preparation of specific compound libraries within agreed timelines with the PI (James T. Hodgkinson);
- Plan for specific aspects of research incorporating issues such as deadlines for compound preparation, 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 awarded in a synthetic organic chemistry related research topic or near completion\*
- A good honours degree in Chemistry\*
- Extensive hands-on experience in multi-step organic synthesis to complex/bioactive molecules\*
- Experience in designing and planning synthetic routes to complex/bioactive molecules\*
- Experience in synthesising compounds within set project timelines/milestones\*
- Advanced knowledge of techniques in synthetic organic chemistry and synthetic transformations (e.g. Schlenk line and reaction knowledge)\*
- Advanced knowledge of NMR spectroscopy, mass spectrometry and other analytical techniques to fully characterise organic compounds\*
- Track record of publications in high-quality journals and presentations at conferences, commensurate with the career stage of the applicant\*

### Desirable

- Relevant experience in any of the fields including drug discovery/ medicinal chemistry/ chemical biology. Particularly valued would be experience in cell biology and western blotting, quantitative proteomics, or the lead optimisation of compounds for desirable DMPK properties.

## Skills, Abilities and Competencies

### Essential

- Excellent oral and written communication skills, including the ability to communicate complex information with clarity\*
- Well organised and self-motivated with the ability to manage the day-to-day running of a research project, to identify research objectives and carry out appropriate research activities within a given timescale\*
- 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
- Ability to work in a shared office/lab environment





- Friendly, helpful and productive interactions with colleagues
- Well-developed understanding of Health and Safety regulations and procedures
- Ability to interact with academic, research, and professional services colleagues

**Desirable**

- Ability to supervise undergraduate and postgraduate students in the laboratory
- Demonstrable ability to produce independent research ideas

*\*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 expected to support key university activities such as clearing, graduation ceremonies, student registration and recruitment open days. We expect all staff as citizens to work flexibly across the University if required.

**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.

