

DEPARTMENT OF CHEMISTRY

Summary

Job title	Postdoctoral Research Associate in Organic Chemistry
Division	Mathematical, Physical and Life Sciences
Department	Department of Chemistry
Location	Chemistry Research Laboratory, 12 Mansfield Road, OX1 3TA
Grade and salary	Grade 7: £38,674 - £46,913 per annum (<i>A less experienced candidate may be appointed at Grade 6 (£34,982 - £40,855 per annum), with a commensurate adjustment in either the essential criteria, responsibilities or duties.</i>) (Inclusive of Oxford University weighting)
Hours	Full time
Contract type	Fixed-term 48 months
Reporting to	Professor Ed Anderson
Vacancy reference	177884
Additional information	Post available from 1 st April 2025, latest date to be in post by is 1 st July 2025

Research topic	Expanding the understanding and applications of small ring polycyclic scaffolds
Principal Investigator / supervisor	Professor Ed Anderson
Project web site	https://www.edandersonchem.org
Funding partner	The funds supporting this research project are provided by EPSRC
Recent publications	<i>Chem. Sci.</i> 2024 , 15, 10918–10925; <i>Org. Lett.</i> 2024 , 26, 2843–2846; <i>Org. Lett.</i> 2024 , 26, 360–364; <i>Nature</i> 2022 , 611, 721–726.

The role

The Anderson group has pioneered the development of [n.1.1]propellanes for the synthesis of bicyclo[n.1.1]alkanes – molecules that are of high utility in contemporary drug design – and also methods for the synthesis of polysubstituted bicyclo[1.1.0]butanes. This project will explore a number of novel methodologies and applications of bicyclic hydrocarbons and propellanes, providing highly functionalised small ring building blocks for medicinal chemistry applications. The project will also explore asymmetric



functionalisation methodologies. This four year position will also involve collaboration with AbbVie to help with translation of the chemistry to industrially-relevant contexts.

The Anderson group is located in the Chemistry Research Laboratory in the Department of Chemistry. We are a multicultural, sociable group, with a wide range of interests across organic chemistry. Examples of research areas include the chemistry of small / strained ring systems, thiophene dioxides, ynamides and yndiamides, and research into antiparasitic natural products as well as other synthetic targets. We enjoy elucidating reaction mechanisms and collaborate with a number of other academic groups.

Our group is committed to fostering an inclusive culture that promotes equality, values diversity, and maintains a working, learning and social environment. As such, we particularly welcome applications from candidates with backgrounds that are typically under-represented in the sciences at Oxford.

Responsibilities

1. Conduct academic research and administrative activities according to the project objectives. Adapt existing and develop new scientific techniques and experimental protocols.
2. Contribute ideas for new research directions within and beyond the specific theme of small bi- and tricyclic ring systems.
3. Review the associated literature, and write up the results of the research for publication in peer-reviewed journals.
4. Present work at conferences as oral communications and posters.
5. Liaise and conduct research with our industry collaborators (AbbVie).
6. Act as a source of information and advice to other members of the group on scientific protocols and experimental techniques; serve as a day-to-day supervisor for junior group members.
7. Carry out collaborative projects with colleagues in the group as well as with partnered research groups.
8. Actively participate in group meeting discussions.
9. PDRAs may on occasion be offered the opportunity to teach, which may include small-group tutoring of undergraduates.

Selection criteria

Essential selection criteria

1. Hold a PhD in Organic Chemistry (*or be close to completion prior to taking up the appointment. Please note a less experienced candidate may be appointed at Grade 6 with a commensurate adjustment in either the essential criteria, responsibilities or duties*).
2. Be able to demonstrate expertise in a wide range of methods and techniques in organic synthesis, including areas such as multistep synthesis, catalysis, methodology and mechanistic study. Be able to keep detailed laboratory records and report on progress at regular intervals.
3. Have a strong understanding of organic chemistry concepts and reaction mechanisms.
4. Have a strong track record of high-quality peer reviewed publications. Evidence will be sought of understanding of the applicant's previous fields of research, and of their intellectual and practical contributions to previous research projects.

5. Be viewed as a motivated, enthusiastic, adaptable and organised co-worker; someone who can work with independence, and can extract the benefits of an excellent research environment.
6. Have an excellent general knowledge of related areas of organic chemistry through reading of the literature, online database searching, and attendance at seminars and conferences.
7. Be willing to participate in group meetings, and communicate well in English in written, oral and visual presentations.
8. Be able to work supportively in a laboratory environment, and to supervise and educate junior co-workers. Be willing to play a role in laboratory management by assuming a share of group responsibilities.

Desirable selection criteria

1. Experience in asymmetric catalysis
2. Experience with computational modelling of organic reactions

Pre-employment screening

Standard checks

If you are offered the post, the offer will be subject to standard pre-employment checks. You will be asked to provide: proof of your right-to-work in the UK; proof of your identity; and (if we haven't done so already) we will contact the referees you have nominated. If you have previously worked for the University we will also verify key information such as your dates of employment and reason for leaving your previous role with the department/unit where you worked. You will also be asked to complete a health declaration so that you can tell us about any health conditions or disabilities for which you may need us to make appropriate adjustments.

Please read the candidate notes on the University's pre-employment screening procedures at: <https://www.jobs.ox.ac.uk/pre-employment-checks>

Hazard-specific / Safety-critical duties

This job includes hazards or safety-critical activities. If you are offered the post, you will be asked to complete a health questionnaire which will be assessed by our Occupational Health Service, and the offer of employment will be subject a successful outcome of this assessment.

The hazards or safety-critical duties involved are as follows: This job includes hazards or safety-critical activities. If you are offered the post, you will be asked to complete a health questionnaire which will be assessed by our Occupational Health Service, and the offer of employment will be subject a successful outcome of this assessment.

The hazards or safety-critical duties involved are as follows:

- Occasional night working (11pm-6am)
- Work with any substance which has any of the following pictograms on their MSDS:



- Occasional travel outside of Europe or North America on University Business

About the University of Oxford

Welcome to the University of Oxford. We aim to lead the world in research and education for the benefit of society both in the UK and globally. Oxford's researchers engage with academic, commercial and cultural partners across the world to stimulate high-quality research and enable innovation through a broad range of social, policy and economic impacts.

We believe our strengths lie both in empowering individuals and teams to address fundamental questions of global significance, while providing all our staff with a welcoming and inclusive workplace that enables everyone to develop and do their best work. Recognising that diversity is our strength, vital for innovation and creativity, we aspire to build a truly diverse community which values and respects every individual's unique contribution.

While we have long traditions of scholarship, we are also forward-looking, creative and cutting-edge. Oxford is one of Europe's most entrepreneurial universities and we rank first in the UK for university spin-outs, and in recent years we have spun out 15-20 new companies every year. We are also recognised as leaders in support for social enterprise.

Join us and you will find a unique, democratic and international community, a great range of staff benefits and access to a vibrant array of cultural activities in the beautiful city of Oxford.

For more information, please visit www.ox.ac.uk/about/organisation.

Department Of Chemistry

The mission of Oxford Chemistry is to advance the global understanding of chemistry and to use that knowledge to address major challenges for society. Oxford Chemistry maintains world-class strengths in fundamental research, including the training of outstanding young scientists, whilst being an outward-looking department engaging with other disciplines, industry, public services, government and the general public. We are a large department within the University's Mathematical, Physical and Life Sciences Division with over 70 research groups and 900 researchers including 400 graduate research students. Our MChem degree takes 180 students a year and features the distinctive tutorials of Oxford, an innovative three-year programme of practical teaching within our state-of-the-art teaching laboratory, and a 4th year focused on research based within one of our research groups.

Research in Oxford Chemistry focuses on fundamental science aimed at making significant and sustained long-term impact. We provide an environment that enables research by hiring, developing, and supporting talented researchers, many recognised as international leaders, across the spectrum of the chemical sciences. Our students and staff work in excellent research facilities to deliver field-leading research that crosses traditional boundaries and engages strongly with other disciplines, both within Oxford and across a range of external sectors. The impact of our research in the wider economy and society is manifest in our many industrial and clinical collaborations and successful start-ups. Our eight research themes and business engagements showcase the breadth and depth of our research across the chemical sciences.

We are committed to providing an inclusive and supportive work and study environment for all our staff and students based on core values of respect, equality and collaboration. We have held an Athena SWAN silver award since 2015 reflecting our commitment to improving gender equality within our discipline.

Oxford Chemistry is accommodated within five buildings in the University's science area, including a modern RIBA award-winning dedicated research facility and a state-of-the-art practical teaching laboratory. Researchers are supported by a research infrastructure within Chemistry that includes NMR, Mass Spectrometry, Crystallography, Surface Analysis, Inorganic Materials Characterisation, Advanced Electron Spin Resonance and high-performance computing facilities as well as access to facilities across the wider University and at national research facilities including the Rosalind Franklin Institute and

Diamond Light Source. To support the Teaching and Research in the Department, there are a number of administrative functions including Finance, Human Resources, Facilities, Information Technology, Student Administration, Health and Safety, Communications and Alumni Relations.

Find out more about the Department, our work and our people at chem.ox.ac.uk

Equality, Diversity and Inclusion in Oxford Chemistry

We are committed to promoting an inclusive and diverse community of students and staff based on core values of respect, equality and collaboration. The Department has an active Equality, Diversity and Inclusion (EDI) committee and since 2015 we have held an Athena SWAN silver award in recognition of our efforts to introduce organisational and cultural practices which promote gender equality and create a better working environment for all. We promote family-friendly policies and support flexible working arrangements where possible. For more information about the University's family friendly benefits, please also see <https://hr.admin.ox.ac.uk/information-for-parents-and-carers>

Mathematical, Physical and Life Sciences Division

The academic administration of the University is conducted through four divisions (Humanities, Social Sciences, Mathematical, Physical and Life Sciences, and Medical Sciences). The Mathematical, Physical and Life Sciences Division consists of ten constituent departments: The Department of Chemistry, the Department of Computer Science, the Department of Earth Sciences, the Department of Engineering Science, the Department of Materials, Mathematical Institute, the Department of Physics, Department of Plant Sciences, Department of Zoology and the Department of Statistics. The division provides a framework for interdisciplinary teaching and research. There are also links with the Medical Sciences Division.

The disciplines within the MPLS Division regularly appear at the highest levels in rankings, including the Times Higher Education and QS world rankings. Nationally, the quality of the Division's research outputs and environment, and the resulting impact, was recognised through strong performances in the UK Research Excellence Framework in both 2014 and 2021.

For more information please visit: <http://www.mpls.ox.ac.uk/>

How to apply

Applications are made through our online recruitment portal. Information about how to apply is available on our Jobs website <https://www.jobs.ox.ac.uk/how-to-apply>.

Your application will be judged solely on the basis of how you demonstrate that you meet the selection criteria stated in the job description.

As part of your application you will be asked to provide details of two referees and indicate whether we can contact them now.

You will be asked to upload a CV and a supporting statement. The supporting statement must explain how you meet each of the selection criteria for the post using examples of your skills and experience. This may include experience gained in employment, education, or during career breaks (such as time out to care for dependants)

Please upload all documents **as PDF files** with your name and the document type in the filename.

All applications must be received by **midday** UK time on the closing date stated in the online advertisement.

If you currently work for the University please note that:

- as part of the referencing process, we will contact your current department to confirm basic employment details including reason for leaving
- although employees may hold multiple part-time posts, they may not hold more than the equivalent of a full time post. If you are offered this post, and accepting it would take you over the equivalent of full-time hours, you will be expected to resign from, or reduce hours in, your other posts(s) before starting work in the new post.

Information for priority candidates

A priority candidate is a University employee who is seeking redeployment because they have been advised that they are at risk of redundancy, or on grounds of ill-health/disability. Priority candidates are issued with a redeployment letter by their employing department(s).

If you are a priority candidate, please ensure that you attach your redeployment letter to your application (or email it to the contact address on the advert if the application form used for the vacancy does not allow attachments).

If you need help

Application FAQs, including technical troubleshooting advice is available at:

<https://staff.web.ox.ac.uk/recruitment-support-faqs>

Non-technical questions about this job should be addressed to the recruiting department directly recruitment@chem.ox.ac.uk

To return to the online application at any stage, please go to: www.recruit.ox.ac.uk. Please note that you will receive an automated email from our online recruitment portal to confirm receipt of your application. **Please check your spam/junk mail** if you do not receive this email.

Important information for candidates

Data Privacy

Please note that any personal data submitted to the University as part of the job application process will be processed in accordance with the GDPR and related UK data protection legislation. For further information, please see the University's Privacy Notice for Job Applicants at: <https://compliance.admin.ox.ac.uk/job-applicant-privacy-policy>. The University's Policy on Data Protection is available at: <https://compliance.admin.ox.ac.uk/data-protection-policy>.

The University's policy on retirement

The University operates an Employer Justified Retirement Age (EJRA) for very senior research posts at **grade RSIV/D35 and clinical equivalents E62 and E82** of 30 September before the 70th birthday. The justification for this is explained at: <https://hr.admin.ox.ac.uk/the-ejra>. For **existing** employees on these grades, any employment beyond the retirement age is subject to approval through the procedures: <https://hr.admin.ox.ac.uk/the-ejra>. There is no normal or fixed age at which staff in posts at other grades have to retire. Staff at these grades may elect to retire in accordance with the rules of the applicable pension scheme, as may be amended from time to time.

Equality of opportunity

Entry into employment with the University and progression within employment will be determined only by personal merit and the application of criteria which are related to the duties of each particular post and the relevant salary structure. In all cases, ability to perform the job will be the primary consideration. No applicant or member of staff shall be discriminated against because of age, disability, gender reassignment, marriage or civil partnership, pregnancy or maternity, race, religion or belief, sex, or sexual orientation.

Benefits of working at the University

Employee benefits

University employees enjoy 38 days' paid holiday, generous pension schemes, flexible working options, travel discounts including salary sacrifice schemes for bicycles and electric cars and other discounts. Staff can access a huge range of personal and professional development opportunities. See <https://hr.admin.ox.ac.uk/staff-benefits>

Employee Assistance Programme

As part of our wellbeing offering staff get free access to Health Assured, a confidential employee assistance programme, available 24/7 for 365 days a year. Find out more <https://staff.admin.ox.ac.uk/health-assured-eap>

University Club and sports facilities

Membership of the University Club is free for University staff. It offers social, sporting, and hospitality facilities. Staff can also use the University Sports Centre on Iffley Road at discounted rates, including a fitness centre, powerlifting room, and swimming pool. See www.club.ox.ac.uk and <https://www.sport.ox.ac.uk/>.

Information for staff new to Oxford

If you are relocating to Oxfordshire from overseas or elsewhere in the UK, the University's Welcome Service includes practical information about settling in the area, including advice on relocation, accommodation, and local schools. See <https://welcome.ox.ac.uk/>

There is also a visa loan scheme to cover the costs of UK visa applications for staff and their dependants. See <https://staffimmigration.admin.ox.ac.uk/visa-loan-scheme>

Family-friendly benefits

We are a family-friendly employer with one of the most generous family leave schemes in the Higher Education sector (see <https://hr.web.ox.ac.uk/family-leave>). Our Childcare Services team provides guidance and support on childcare provision, and offers a range of high-quality childcare options at affordable prices for staff. In addition to 5 University nurseries, we partner with a number of local providers to offer in excess of 450 full time nursery places to our staff. Eligible parents are able to pay for childcare through salary sacrifice, further reducing costs. See <https://childcare.admin.ox.ac.uk/>.

Supporting disability and health-related issues (inc menopause)

We are committed to supporting members of staff with disabilities or long-term health conditions, including those experiencing negative effects of menopause. Information about the University's Staff Disability Advisor, is at <https://edu.admin.ox.ac.uk/disability-support>. For information about how we support those going through menopause see <https://hr.admin.ox.ac.uk/menopause-guidance>

Staff networks

The University has a number of staff networks including for research staff, BME staff, LGBT+ staff, disabled staff network and those going through menopause. Find out more at <https://edu.admin.ox.ac.uk/networks>

The University of Oxford Newcomers' Club

The University of Oxford Newcomers' Club is run by volunteers that aims to assist the partners of new staff settle into Oxford, and provides them with an opportunity to meet people and make connections in the local area. See www.newcomers.ox.ac.uk.

Research staff

The Researcher Hub supports all researchers on fixed-term contracts. They aim to help you settle in comfortably, make connections, grow as a person, extend your research expertise and approach your next career step with confidence. Find out more <https://www.ox.ac.uk/research/support-researchers/researcher-hub>

Oxford's Research Staff Society is a collective voice for our researchers. They also organise social and professional networking activities for researchers. Find out more <https://www.ox.ac.uk/research/support-researchers/connecting-other-researchers/oxford-research-staff-society>