

DEPARTMENT OF CHEMISTRY

Summary

Job title	Radiochemistry Facility Unit Head
Division	Mathematical, Physical and Life Sciences
Department	Department of Chemistry
Location	Rodney Porter Building, Department of Chemistry, Sibthorp Rd, Oxford, OX1 3QU
Grade and salary	Grade 9: £55,636 to £64,228 per annum (inclusive of Oxford University Weighting)
Hours	Full time
Contract type	Permanent
Reporting to	Head of Department
Vacancy reference	176619

The role

We are seeking an experienced radiochemist to manage our upgraded Radiochemistry Facility. The Facility comprises key equipment to perform radiochemistry including a cyclotron (GE MINITrace Qilin) and hot cells. The Unit Head will report to the Head of Department, Chemistry, and will be responsible for the safe and effective running of the Facility to support the research of the Department, working closely with the academic lead, Professor Veronique Gouverneur, and her researchers, health and safety and operational leads within the Department and wider University. The Unit Head will be supported by a part-time Radiochemistry Scientific Manager (Grade 8). As operational head of the research facility, the postholder will work closely with senior academics on mid to long term plans for the facility, its development to support future research both for the Department and wider regional user base, and its financial sustainability.

The postholder will take responsibility for the cyclotron and hot cells performance and maintenance, including developing and implementing protocols for the safe and effective operation of the service, first line troubleshooting and repairs, delivering training to users, and monitoring and reporting on the Facility's performance as required by H&S legislation.

The Unit Head will demonstrate technical and mechanical expertise in cyclotron and hot cell operation, substantial knowledge of radiation health and safety practices and legislation, excellent organisational skills, sound judgement and the ability to engage effectively with researchers, students, academic and operational leads, and with external contractors and agencies.



About the Facility

Positron Emission Tomography (PET) allows for the in vivo tracking of biological processes and thus plays a key role in various areas of clinical medicine for diagnosis and therapy assessment. It also finds application in drug discovery programmes. For further advances in experimental molecular imaging including PET, innovation is paramount to produce the next generation of first-in-class PET radiotracers for usage in PET clinical centres in the UK and worldwide. We have created a discovery research centre OxIME (Oxford Imaging Methods Epicentre) for experimental molecular imaging that will harness world-leading local expertise in numerous aspects of underpinning sciences such as (bio)chemistry, (bio)physics, computer science, mathematics, biology, and multiple translational disciplines, to invent novel labelled (bio)molecules for PET imaging applications. These labelled molecules will enable a broad range of fundamental research such as in-depth understanding of dynamic biological systems, or in depth understanding of plant physiology. New labelled molecules will also enable early detection of diseases and more generally precision medicine to improve patient care, and facilitate the invention of novel therapeutics and diagnostics for oncology, neurodegenerative diseases and cardiology.

With the support of the EPSRC, the Department has invested in a mini cyclotron that will provide on demand and to a large number of users, the short-lived radioisotopes necessary to invent, produce and test novel labelled (bio)molecules for PET imaging.

Responsibilities

- To be responsible for all aspects of managing the Radiochemistry Facility and to ensure that it complies with all regulatory controls. This includes managing the efficient running of the:
 - Cyclotron
 - Hot cells
 - Building Management System
 - Radioisotope production
- Develop strategic plans in liaison with the academic lead/s for the development and financial sustainability of the facility to support the department's and wider academic community's research.
- In liaison with the Head of Department and departmental and central safety officers, take key decisions with regard to the running of the facility to ensure compliance with health and safety legislation and the duty of care to students and staff. This may include decisions for temporary closure of the facility on health and safety grounds.
- Develop, review and approve Risk Assessments, SOPs, policies and work instructions for equipment within the Radiochemistry Facility.
- Support validation and/or commissioning of facility equipment (including cyclotron and associated equipment). Participate and lead in equipment and process validation documentation, including technical input, review and approval.
- Ensure that instructions and documentation are effectively implemented and records are kept, demonstrating regulatory compliance to ensure the cyclotron is operated in a manner which enables the safe and reliable delivery of radioactive material to R&D hot cells.
- Supervise the Radiochemistry Scientific Manager in their duties related to the Radiochemistry Facility (they will also hold a role for the Gouverneur research group) including deputisation in the Unit Head's absence.
- Plan and schedule radioisotope production to support research programmes, liaising closely with research teams and contributing expertise and knowledge to support research design as appropriate.
- Train staff and students in facility operations and improve users understanding of facility operation and processes by developing and/or enhancing department SOPs and training guides. Maintain training and competency records and continually assess competency of users.

- Develop effective working relationships with academic leads, researchers, external agencies, and suppliers to ensure that the facility is working optimally and meeting user needs; seek feedback and implement continuous improvements as needed.
- To have oversight for the financial management of the Unit, working closely with the Head of Finance on annual budget, optimising cost recoveries from internal and external users.
- Maintain stock control for spare parts and consumable supplies related to the equipment managed.
- Lead capital equipment installations and engineering projects associated with cyclotron infrastructure.
- Develop and maintain existing cyclotron and infrastructure including targets, solid target systems, chillers, DI water, radioisotope delivery systems and facilitate the design and modification of custom equipment that will improve machine performance.
- Supervise contractor site visits during validation, calibration, repair and maintenance visits. Ensure that all equipment is adequately maintained by approved contractors.
- To oversee security arrangements for the facility (e.g. with respect to personnel access, the substances generated / used within the facility).
- To represent the Unit at internal/external meetings & seminars.
- To keep abreast of developments in radiochemistry research, to be a member of national and international professional societies and networks, to share best practice with other facilities globally.
- To develop the external user base; negotiate terms of use in liaison with the Head of Finance and academic lead; train and supervise users.
- Prepare and analyse key performance data on the facility and present to committees and user groups as required.
- Act as an advisor within the University to researchers on the technical aspects of F18 production and use within research.

Health and Safety Support

- Act as Radiation Protection Supervisor for the radiochemistry facility; to draft and regularly review as necessary the local rules for the facility and ensure compliance with them.
- Responsibility for managing and maintaining all necessary safety documentation related to the facility operation (Risk Assessments, COSHH, SOPs, isotope disposal records) and ensuring compliance with local radioprotection procedures.
- To manage radioactive waste from the facility including storage and disposal in accordance with guidance from the University's Radioactive Waste Advisor.
- To undertake any other Health and Safety related duties in relation to the facility.

General Duties

- Assist leadership with regulatory inspections.
- Ensure that an understanding of the importance of confidentiality is applied when undertaking all duties.
- To attend relevant training and refresher courses.
- Abide by University and Departmental policies on Health and Safety and Equality and Diversity.

- To assist with the development of new concepts and ideas to extend the research potential of the Unit.
- You may be asked to perform other duties occasionally which are not included above, but which will be consistent with the role.

Selection criteria

Essential selection criteria

Education/Professional

- Degree and professional membership/experience in a physical science or engineering subject (electrical/mechanical engineering, applied physics) or equivalent technical knowledge

Knowledge, Skills and Experience

- Experience of working within a radiochemistry facility.
- The experience and knowledge to be a respected and credible technical lead on a high-risk and specialist research facility.
- Demonstrate a sound and proven knowledge of mechanical and electrical engineering and servicing complex electronic equipment.
- Substantial radiation safety knowledge.
- Experience of managing staff and budgetary resource.
- Detailed knowledge of programming of database, spreadsheet and word processing applications
- Evidence of ability to work with computers and computer-controlled instrumentation with remote operation.
- Evidence of practical laboratory skills.

Customer Service, Communication and Team Working

- Evidence of ability of good report writing, verbal communication skills and meticulous attention to detail
- Evidence of ability to work flexibly as part of a multi-skilled team
- Evidence of ability to communicate in a timely, clear and effective manner

Planning, Analysis and Problem Solving

- Evidence of ability to work unsupervised to deadline, planning and setting priorities for own work
- Statistical analysis, interpretation and reporting of results.
- Evidence of ability to solve problems using initiative and creativity; identify and propose practical solutions and to resolve problems where there are a range of potential options available

Desirable selection criteria

- PET Radiopharmacy experience highly preferred.
- High level knowledge and experience with mechanical, electrical and/or control systems
- Development of computer programmes for data handling.

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:

- Working with Ionising Radiation (will require appointment as a 'Classified Worker' under the Ionising Radiations Regulations 2017).
- Work with any substance which has any of the following pictograms on their MSDS:



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>