## Job description and selection criteria

<table>
<thead>
<tr>
<th><strong>Job title</strong></th>
<th>Post-Doctoral Scientist – Protein Crystallography and Fragment-based Discovery</th>
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</thead>
<tbody>
<tr>
<td><strong>Division</strong></td>
<td>Medical Sciences</td>
</tr>
<tr>
<td><strong>Department</strong></td>
<td>Nuffield Department of Medicine (NDM), Structural Genomics Consortium (SGC)</td>
</tr>
<tr>
<td><strong>Location</strong></td>
<td>Old Road Campus Research Building Headington, Oxford</td>
</tr>
<tr>
<td><strong>Grade and salary</strong></td>
<td>Grade 7: £32,236 - £39,609 per annum</td>
</tr>
<tr>
<td><strong>Hours</strong></td>
<td>Full time</td>
</tr>
<tr>
<td><strong>Contract type</strong></td>
<td>Fixed-term (to 31 Aug 2020 in the first instance)</td>
</tr>
<tr>
<td><strong>Reporting to</strong></td>
<td>Prof Paul Brennan (Principal Investigator: Medicinal Chemistry)</td>
</tr>
<tr>
<td><strong>Vacancy reference</strong></td>
<td>138003</td>
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<thead>
<tr>
<th><strong>Research topic</strong></th>
<th>Structure-based probe discovery</th>
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</thead>
<tbody>
<tr>
<td><strong>Principal Investigator / supervisor</strong></td>
<td>Supervisor: Tobias Krojer (Team Leader: Protein Crystallography)</td>
</tr>
<tr>
<td><strong>Project team</strong></td>
<td>Medicinal Chemistry, TDI/ Protein Crystallography, SGC</td>
</tr>
<tr>
<td><strong>Project web site</strong></td>
<td><a href="https://www.sgc.ox.ac.uk/">https://www.sgc.ox.ac.uk/</a></td>
</tr>
<tr>
<td></td>
<td><a href="https://oxford-ddi.alzheimersresearchuk.org/">https://oxford-ddi.alzheimersresearchuk.org/</a></td>
</tr>
<tr>
<td><strong>Funding partner</strong></td>
<td>Alzheimer’s Research UK funds the Oxford Drug Discovery Institute to establish drug discovery projects with the aim of developing new approaches for the treatment of Alzheimer’s disease and other neurodegenerative diseases that cause dementia</td>
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</table>
The role

The post holder is tasked with driving the structure-based development of tool compounds for novel protein targets involved in Alzheimer’s disease. The remit is to apply a new, holistic gene-to-compound approach to a genetics-based and novelty-focused target list, using at scale a series of next-generation technologies developed at SGC and the partnering XChem facility at Diamond Light Source. The post will be located at the intersection between medicinal chemistry and structural biology and the aim is to transform the productivity of ligand discovery by employing a vast array of tools developed at SGC, ranging from parallel construct exploration for crystal engineering to novel cloud-based software for compound development.

This position is ideally suited for scientists working in structure-based ligand discovery, with interests and skills spanning cloning, protein chemistry, crystallography, chemistry and biophysics, and who are keen to drive projects as part of a multi-disciplinary team. The post holder has the opportunity to work on novel targets, which are of medical relevance and will have translational impact. Additionally, there is the opportunity to further shape and develop the scientific scope of individual targets.

The post reports to the Principal Investigator of the Medicinal Chemistry group at the TDI, and will work closely with the Team Leader of the Protein Crystallography group in the SGC lab. The post holder will interact with many researchers in the TDI, SGC, at Diamond Light Source, and academic and industrial collaborators, provide guidance to junior members of the research group including research assistants, PhD students, and/or project volunteers.

Responsibilities

- Manage a set of your own protein projects in parallel, with each potentially at different stages of the gene-to-compound process. This involves small-scale project management and administration, to coordinate multiple aspects of work to meet deadlines.

- Work with technology developers to apply latest processes to targets of interest, and actively contribute to further streamlining of these ideas

- Assemble experimental and literature data on each project into science cases for completing compound development internally or through external funding

- Contribute to the group’s scientific output by regularly publishing papers and presenting work at national and international scientific meetings

- Contribute to the group’s role in the SGC as centre of crystallography expertise, by helping SGC researchers and visitors as opportunities or needs arise

- Plan and perform scientific experiments independently; record and analyse results

- Help coordinate scientific projects and liaise with collaborators

- Contribute to training of students and visitors through day-to-day supervision

- Carry out any other relevant duties as may reasonably be associated with the post and which may be required from time to time.

- To participate in and support the public engagement and widening access activities of the Department and the University. This is anticipated to be not more than 2 days per year.
Hazard-specific / Safety-critical duties

This job includes the following hazards or safety-critical activities which will require successful pre-employment health screening through our Occupational Health Service before the successful candidate will be allowed to start work:

- Occasional night working (11pm-6am)
- Occasional lone Working
- Driving on University business
- Working with Ionising Radiation
- Work with any substance which has any of the following pictograms on their MSDS:
  - [Pictogram]
  - [Pictogram]
- Travel outside of Europe or North America on University Business

Selection criteria

Essential selection criteria

- PhD or equivalent in a relevant area of structural biology, protein biochemistry, biophysics, chemical biology, medicinal chemistry, or a related field, either awarded, submitted for final examination or close to submission.
- Demonstrated expertise in molecular biology, protein expression, purification and crystallization
- An active interest in structure-based drug discovery
- A record of publishing scientific papers
- Ability to work independently
- Ability to work as part of a team and to collaborate with a wide range of colleagues.
- Excellent ability to communicate effectively (both spoken and written) with a wide range of people, at a variety of levels of technical knowledge
- Strong organisational skills, including the ability to plan ahead, to reprioritise when necessary, and to work to tight deadlines.

Desirable selection criteria

- Extensive experience in macromolecular crystallography
- Experience in biophysical methods such as NMR, SPR or ITC
- Experience in structure-based compound design
- Use of robotics or automation
- Programming skills
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. Income from external research contracts in 2015/16 exceeded £537.4m and we rank first in the UK for university spin-outs, with more than 130 companies created to date. 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

Medical Sciences

The Medical Sciences Division is an internationally recognized centre of excellence for biomedical and clinical research and teaching.

We are the largest academic division in the University of Oxford World-leading programmes, housed in state-of-the-art facilities, cover the full range of scientific endeavour from the molecule to the population. With our NHS partners we also foster the highest possible standards in patient care.

For more information please visit: www.medsci.ox.ac.uk

Nuffield Department of Clinical Medicine (NDM)

The Nuffield Department of Clinical Medicine (NDM) is one of the largest departments of the University of Oxford and is part of the Medical Sciences Division, with responsibility for a significant part of the teaching of clinical students within the Medical School. The Department also has a substantial research programme which requires high quality administrative management.

NDM has significant financial turnover and complexity, resulting from its diverse research portfolio, its geographical spread and its close links with NHS funding and strategic teams involved in the development and delivery of increasingly integrated clinical research platforms.
. . . fostering your career in science

For more information please visit: www.ndm.ox.ac.uk/home

The University of Oxford is a member of the Athena SWAN Charter and holds an institutional Bronze Athena SWAN award. The Nuffield Department of Medicine holds a Silver Athena SWAN award to recognise advancement of gender equality: representation, progression and success for all.

For more information please visit: https://www.ndm.ox.ac.uk/working-for-ndm/aboutndmatheneswan/

The Jenner Institute

The Jenner Institute was founded in November 2005 to develop innovative vaccines against major global diseases. Uniquely it focuses both on diseases of humans and livestock and tests new vaccine approaches in parallel in different species. A major theme is translational research involving the rapid early-stage development and assessment of new vaccines in clinical trials.

For more information please visit: department website http://www.jenner.ac.uk/

Structural Genomics Consortium (SGC)

The Structural Genomics Consortium (SGC), a not-for-profit, public-private partnership funds pre-competitive research that contributes to new hypotheses in understanding and treating human disease, and the subsequent identification of new targets for drug discovery. The SGC supports pioneering research at the University of Oxford (UK), University of Toronto (Canada), University of Campinas (Brazil), and University of North Carolina (USA). The reagents and knowledge related to human proteins that the SGC supports are made openly accessible to researchers around the world to accelerate the discovery of new medicines in order to bring potentially life-saving drugs to market faster and at a lower cost.

SGC Oxford, a part of the Nuffield Department of Clinical Medicine, receives funding from public, charitable and private sector organisations such as the European Commission, UK Research Councils, Wellcome Trust, and pharmaceutical companies. Research in SGC Oxford is focused on the production and characterisation of the 3-dimensional structures of soluble and of integral membrane proteins, the discovery of selective chemical probes that can modulate protein function, and the development of target enabling packages that transform genetic hits into starting points for drug discovery. SGC Oxford shares its research outputs through collaborations with researchers worldwide.

For more information please visit: http://www.thesgc.org/scientists/groups/oxford/

How to apply

Before submitting an application, you may find it helpful to read the ‘Tips on applying for a job at the University of Oxford’ document, at
http://www.ox.ac.uk/about_the_university/jobs/research/
http://www.ox.ac.uk/about_the_university/jobs/professionalandmanagement/
http://www.ox.ac.uk/about_the_university/jobs/supportandtechnical/
If you would like to apply, click on the **Apply Now** button on the ‘Job Details’ page and follow the on-screen instructions to register as a new user or log-in if you have applied previously. Please provide details of two referees and indicate whether we can contact them now.

You will also 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).

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

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

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

<table>
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<tr>
<th>Information for priority candidates</th>
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<tr>
<td><strong>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 departments.</strong></td>
</tr>
<tr>
<td><strong>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)</strong></td>
</tr>
</tbody>
</table>

Should you experience any difficulties using the online application system, please email recruitment.support@admin.ox.ac.uk. Further help and support is available from www.ox.ac.uk/about_the_university/jobs/support/. To return to the online application at any stage, please go to: **www.recruit.ox.ac.uk**.

Please note that you will be notified of the progress of your application by automatic emails from our e-recruitment system. **Please check your spam/junk mail** regularly to ensure that you receive all emails.
Important information for candidates

Pre-employment screening
Please note that the appointment of the successful candidate will be subject to standard pre-employment screening, as applicable to the post. This will include right-to-work, proof of identity and references. We advise all applicants to read the candidate notes on the University’s pre-employment screening procedures, found at:
www.ox.ac.uk/about/jobs/preemploymentscreening/.

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: www.admin.ox.ac.uk/councilsec/compliance/gdpr/privacynotices/job/. The University’s Policy on Data Protection is available at:
www.admin.ox.ac.uk/councilsec/compliance/gdpr/universitypolicyondataprotection/.

The University’s policy on retirement
The University operates an Employer Justified Retirement Age (EJRA) for all academic posts and some academic-related posts. From 1 October 2017, the University has adopted an EJRA of 30 September before the 69th birthday for all academic and academic-related staff in posts at grade 8 and above. The justification for this is explained at:
www.admin.ox.ac.uk/personnel/end/retirement/acrelretire8+/

For existing employees, any employment beyond the retirement age is subject to approval through the procedures: www.admin.ox.ac.uk/personnel/end/retirement/acrelretire8+/

From 1 October 2017, there is no normal or fixed age at which staff in posts at grades 1–7 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.

Information Security
Information is critical to The University of Oxford operations and failure to protect information increases the risk of financial and reputational losses. NDM is committed to protecting information, in all its forms, from loss of confidentiality, integrity and availability. Users are required to complete information security awareness training and are responsible for making informed decisions to protect the information that they process. Wilful failure to comply with the policy and baseline will be treated extremely seriously by the University and may result in enforcement action on The Nuffield Department of Clinical Medicine and/or an individual.
For full details please see University Information Security Policy and Implementation Guidance
Benefits of working at the University

University Club and sports facilities
The University Club provides social, sporting and hospitality facilities. It incorporates a bar, café and sporting facilities, including a gym. 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 www.sport.ox.ac.uk/oxford-university-sports-facilities.

Information for international staff (or those relocating from another part of the UK)
If you are relocating to Oxfordshire from overseas, or elsewhere in the UK, the University's International Staff website includes practical information related to moving to and settling in Oxford such as advice on immigration, relocation, accommodation, or registering with a doctor. See: www.internationalstaffwelcome.admin.ox.ac.uk/

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

Childcare
The University has excellent childcare services with five University nurseries, as well as University-supported places at many other private nurseries. For full details including how to apply and the costs, see www.admin.ox.ac.uk/childcare.

Family-friendly benefits
The University subscribes to My Family Care (www.admin.ox.ac.uk/personnel/staffinfo/benefits/family/mfc/) and staff are eligible to register for emergency back-up childcare and adultcare services, a 'speak to an expert' phone line and a wide range of guides and webinars through a website called the Work + Family space.

Disabled staff
We are committed to supporting members of staff with disabilities or long-term health conditions. Please visit www.admin.ox.ac.uk/eop/disab/staff for further details including information about how to make contact, in confidence, with the University’s Staff Disability Advisor.

Staff networks
The University has a number of staff networks including the Oxford Research Staff Society, BME staff network, LGBT+ staff network and a disabled staff network. You can find more information at www.admin.ox.ac.uk/eop/inpractice/networks/

Other benefits
Staff can enjoy a range of other benefits such as free visitor access to the University's colleges and the Botanic Gardens as well as a range of discounts. See www.admin.ox.ac.uk/personnel/staffinfo/benefits