Job description and selection criteria

<table>
<thead>
<tr>
<th>Job title</th>
<th>Research Assistant – Protein expression and antibody characterization</th>
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<tbody>
<tr>
<td>Division</td>
<td>Medical Sciences</td>
</tr>
<tr>
<td>Department</td>
<td>Nuffield Department of Medicine (NDM) Structural Genomics Consortium</td>
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<tr>
<td>Location</td>
<td>Old Road Campus Research Building Headington, Oxford</td>
</tr>
<tr>
<td>Grade and salary</td>
<td>Grade 6: £28,098 - £33,518 per annum</td>
</tr>
<tr>
<td>Hours</td>
<td>Full time</td>
</tr>
<tr>
<td>Contract type</td>
<td>Fixed-term to 31st Dec 2020 in the first instance</td>
</tr>
<tr>
<td>Reporting to</td>
<td>Dr. Opher Gileadi – PI Genome Integrity</td>
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<tr>
<td>Vacancy reference</td>
<td>134505</td>
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The role

Motor neuron disease (ALS) is a rare but devastating neurodegenerative disease. Research on this, and many other diseases, depends on high-quality research tools that deliver reliable and reproducible information on the mechanisms of disease and the effectiveness of treatments. Antibodies to disease-linked proteins are a prime research tool; however, it is estimated that at least 50% of commercially available antibodies are not fit for purpose (not specific or low affinity). This project aims to generate high-quality, rigorously validated recombinant antibodies to a set of key proteins involved in ALS. This is an international effort involving researchers in Oxford (antigen production), Stockholm (antibody generation) and Montreal (antibody certification). You will clone and express ~30 diverse human proteins in bacteria or eukaryotic cells, and purify the proteins for use as antigens. You will also be involved in the characterization of antibodies generated by the collaborating teams.

The SGC promotes an open science policy, whereby experimental data and reagents are promptly released to the research community with no restrictions on use.
Responsibilities

- Extract from the literature any information on expression and purification of the target proteins.
- Generate plasmids and/or viruses for expression of the target proteins in various forms, including native and biotinylated forms.
- Select, follow, and adapt experimental protocols for optimised expression and purification protocols for each protein.
- Performing quality analyses (mass spec, analytical SEC, Tm determination) on purified proteins.
- Meticulously record experiments and protein QC data in an electronic lab notebook.
- Manage own research and administrative activities, within guidelines provided by senior colleagues.
- Contribute to wider project planning, including ideas for new research projects.
- Contribute to scientific reports and journal articles and the presentation of data/papers at conferences.
- Responsible for general laboratory management and administration, including stock control of laboratory consumables.
- Use specialist scientific equipment in a laboratory environment (AKTA, mass spec, BLI/Biacore).
- Contribute to discussions and share research findings with colleagues in partner institutions, and research groups.

Selection criteria

Essential selection criteria

1. Hold a first degree, plus significant experience in a research lab with relevant techniques.
2. Experience with basic cloning techniques.
3. Experience in protein expression in E. coli.
4. Experience in protein purification.
5. Ability to manage own research and administrative activities.
6. Excellent communication skills, including the ability to write text that can be published, present data at conferences, and represent the research group at meetings.
7. Experience of following and adapting protocols from literature and colleagues, and selecting appropriate experimental methodologies.

8. Excellent general lab practice and meticulous record-keeping

9. Computer skills: Word, Excel, basic image editing

10. Ability to work as part of a team

**Desirable selection criteria**

1. Experience in protein production in eukaryotic cell culture (insect or mammalian)

2. Experience in analysis of protein:protein interactions

3. Experience in working in a high-throughput environment.

**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 2014/15 exceeded £522.9m 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](http://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.

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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/

**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 www.ox.ac.uk/about/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.

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 departments.

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).

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:
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/revisedejra/revaim/.

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

Form 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.

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