Job title	Research Assistant – Neuroinflammation NLRP3
Division	Medical Sciences Division
Department	Nuffield Department of Medicine
Location	NDM Research Building, Old Road Campus, Headington, Oxford, OX3 7FZ
Grade and salary	Grade 6: £29,176 - £34,804 per annum
Hours	Full time
Contract type	Fixed term for 2 years
Reporting to	Dr Sohaib Nizami
Vacancy reference	145194
Research topic	NLRP3 Inflammasome
Principal Investigator / supervisor	Dr Elena Di Daniel
Project team	NLRP3 Project team
Funding partner	The funds supporting this research project are provided by ARUK
Recent publications	PMID 30740661

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 2016/17 exceeded £564m 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) …fostering your career in science

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.

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

The Nuffield Department of Clinical Medicine has been presented with a Departmental Athena SWAN Silver award in recognition of the commitment made to promote gender equality through our organisational and cultural practices and our efforts to improve the working environment for both men and women. For more information please see our Departmental Athena SWAN pages:
https://www.ndm.ox.ac.uk/working-for-ndm/aboutndmatheneswan/

The NDM Research Building and Target Discovery Institute (TDI)

Situated on the Old Road Campus this new building represents the latest phase in continued development of the Medical Research Campus. This £22M new building allows the development of the Target Discovery Institute and expansion of existing research groups of NDM with research synergies. The building is 5,300 sq m (GIA) laboratory and office space housing some 160 research and support staff.

The NDM Research Building constructed for the Nuffield Department of Medicine includes the Target Discovery Institute (TDI) with many academic partners. These include the Department of Cardiovascular Medicine and BHF Centre of Research Excellence (BHF Centre for Cardiovascular Target Discovery), Department of Radiation Oncology and Biology, Ludwig Cancer Institute, Kennedy Institute of Rheumatology, Structural Genomics Consortium and the Department of Chemistry.

The TDI consists of six research groups covering high-throughput biology (Ebner group), advanced biological mass spectrometry (Kessler group), medicinal chemistry (Brennan group), chemoproteomics (Huber group), imaging (Rittscher group) and pharmacogenomics (Nijman group). TDI research facilities include technology platform facilities for high-throughput cell-based screening, cell-based assay development programs, discovery proteomics laboratory, medicinal chemistry and chemical biology programmes. There is support space for the scientists including a 90-seat seminar room, advanced IT and AV infrastructure and additional meeting rooms and break out spaces.

Alzheimer's Research UK Oxford Drug Discovery Institute

The Alzheimer's Research UK Oxford Drug Discovery Institute (Oxford DDI) is part of a newly formed, world-class, network of three drug discovery units sponsored by Alzheimer's Research UK. This initiative is based on juxtaposing high quality drug discovery expertise alongside academic scientists possessing deep understanding of patients, disease mechanisms and model systems. The intent is to translate the cutting edge academic science into drug discovery and prosecute projects from target to lead status, and beyond. The focus will be on novel targets in the dementia therapeutic area.
Located in the Nuffield Department of Medicine Research Building on the Old Road Campus, Headington, Oxford, the Oxford DDI is ideally placed. It is co-located within the Target Discovery Institute alongside the Oxford branch of the UK-National Phenotypic Screening Centre and is in close proximity to the Structural Genomics Consortium, other Oxford University research departments and major hospitals. A wide range of collaborative interactions have been initiated, upon which the Oxford DDI's activities will be built and expanded. http://aruk-oddi.medsci.ox.ac.uk/home

The Oxford DDI is led by the CSO, Dr John Davis and Prof Chas Bountra, the Lead Academic Scientist. The unit contains approximately thirty scientists, including both biologists and medicinal chemists, reporting to a Head of Biology and Head of Chemistry, respectively.

Job Description

Overview of the role

The role is at the interface between academic research and pharmaceutical drug discovery, based in an academic setting looking forward to interactions with pharma that can help prosecute projects faster and better. The successful candidate will be a member of the Oxford Drug Discovery Institute and report to a Postdoctoral Research Assistant (PDRA) working on the NLRP3 project. You will employ cutting edge research tools (cell models including cell lines, primary cells, iPSC, high content imaging, molecular targeting and quantitative endpoints) to progress the NLRP3 project.

Reporting to the PDRA, the post holder is a member of a research group with responsibility for the provision of research support for NLRP3. The post holder provides advice and guidance to research students where appropriate.

Responsibilities/duties

Working closely with protein expression and purification scientists, characterize new proteins, develop biochemical (enzymatic) and biophysical assays, and carry out medium-throughput screening of compound libraries.

- Manage own research on NLRP3 project and administrative activities, such as data entry into dotmatics, within guidelines provided by senior colleagues.
- Contribute to wider project planning, including ideas for new research projects.
- Determine the most appropriate methodologies to test compounds, and identify suitable alternatives if technical problems arise
- Select, follow, and adapt experimental protocols
- Gather, analyse, and present scientific data from a variety of sources
- 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, such as the Echo, Janus robotics, imaging equipment such as Opera Phenix/In Cell, plate readers such as Pherastar
- Represent the research group at external meetings/seminars, either with other members of the group or alone

- Contribute to discussions and share research findings with colleagues in partner institutions, and research groups
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All employees will have to ensure that their work in the laboratory is conducted safely at all times and, in particular, that work is undertaken following the appropriate health and safety policies and procedures for the particular area, without compromise to their own safety or that of others who may be affected.

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:

- Work with any substance which has any of the following pictograms on their MSDS:

Selection criteria

Essential

- Hold a Biology-related degree such as Neuroscience, Pharmacology or related, together with at least a year of relevant laboratory experience
- Possess sufficient specialist knowledge in cell culture ideally of immune cells, such as THP1
- Experience of following and adapting protocols and be familiar with the following experimental methodologies- Western blotting, qPCR, immunocytochemistry, genetic manipulation
- Ability to manage own research and administrative activities such as management of lab reagent stock, lab book writing
- Excellent communication skills, including the ability to write text that can be published, present data at conferences, and represent the research group at meetings

Desirable

- Experience in handling high throughput format plates e.g. 384-1536 well plate
- Use of plate-handling robotics
- Primary cell culture from rodent brain
- Experience of contributing to reports and articles for publication
- Experience of working in a research team and contributing ideas for new research projects

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 https://www.ox.ac.uk/about/jobs/research/

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 receive an automated email from our e-recruitment system 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: 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. 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+/.

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

Employee benefits

University employees enjoy 38 days' paid holiday, generous pension schemes, travel discounts, and a variety of professional development opportunities. Our range of other employee benefits and discounts also includes free entry to the Botanic Gardens and University colleges, and discounts at University museums. See www.admin.ox.ac.uk/personnel/staffinfo/benefits.

University Club and sports facilities

Membership of the University Club is free for all University staff. The University Club 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 www.sport.ox.ac.uk/oxford-university-sports-facilities.

Information for staff new to Oxford

If you are relocating to Oxfordshire from overseas or elsewhere in the UK, the University's Welcome Service website includes practical information about settling in the area, including advice on relocation, accommodation, and local schools. See www.welcome.ox.ac.uk. There is also a visa loan scheme to cover the costs of UK visa applications for staff and their dependents. See www.admin.ox.ac.uk/personnel/permits/reimburse&loanscheme/.

Family-friendly benefits

With one of the most generous family leave schemes in the Higher Education sector, and a range of flexible working options, Oxford aims to be a family-friendly employer. We also subscribe to My Family Care, a service that provides practical advice and support for employees who have caring responsibilities. The service offers a free telephone advice line, and the ability to book emergency back-up care for children, adult dependents and elderly relatives. See www.admin.ox.ac.uk/personnel/staffinfo/benefits/family/mfc/.

Childcare

The University has excellent childcare services, including 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/.

Disabled staff

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

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/.

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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 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.