



West Wing, Level 6, John Radcliffe Hospital, Oxford, OX3 9DU

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Job title	Postdoctoral Fellow in Neuroimmunology
Division	Medical Sciences Division
Department	Nuffield Department of Clinical Neurosciences (NDCN)
Location	John Radcliffe Hospital, Oxford, OX3 9DU
Grade and salary	Grade 7: £36,024 – £44,263 per annum A less experienced candidate may be appointed at Grade 6 (£32,332 – £38,205 per annum), with a commensurate adjustment in either the essential criteria, responsibilities or duties.
Hours	Full time (37.5 hours)
Contract type	Fixed term until 01.01.2026
Reporting to	Dr Adam Handel, head of Oxford Autoimmune Neurology Group
Vacancy reference	167235
Research topic	The role of T cells in the immunopathogenesis of autoimmune encephalitis
Principal Investigator / supervisor	Dr Adam Handel
Project team	Oxford Autoimmune Neurology Group
Project web site	https://www.ndcn.ox.ac.uk/research/autoimmune-neurology-group; https://www.ndcn.ox.ac.uk/team/adam-handel
Funding partner	The funds supporting this research project are provided by the MRC
Recent publications	 Al-Diwani A, Theorell J, Damato V, Bull J, McGlashan N, Green E, Kienzler AK, Harrison R, Hassanali T, Campo L, Browne M, Easton A, Soleymani Majd H, Tenaka K, Iorio R, Dale RC, Harrison P, Geddes J, Quested D, Sharp D, Lee ST, Nauen DW, Makuch M, Lennox B, Fowler D, Sheerin F, Waters P, Leite MI, Handel AE, Irani SR. Cervical lymph nodes and ovarian teratomas as germinal centres in NMDA receptor-antibody encephalitis. Brain. 2022 Aug 27;145(8):2742-2754. doi: 10.1093/brain/awac088 Damato V, Theorell J, Al-Diwani A, Kienzler AK, Makuch M, Sun B, Handel A, Akdeniz D, Berretta A, Ramanathan S, Fower A, Whittam D, Gibbons E, McGlashan N, Green E, Huda S, Woodhall M, Palace J, Sheerin F, Waters P, Leite MI, Jacob A, Irani SR. Rituximab abrogates aquaporin-4-specific germinal









center activity in patients with neuromyelitis optica spectrum disorders. Proc Natl Acad Sci U S A. 2022 Jun
14;119(24):e2121804119. doi: 10.1073/pnas.2121804119. Epub 2022 Jun 6
3. Handel AE, Cheuk S, Dhalla F, Maio S, Hübscher T, Rota I,
Deadman ME, Ekwall O, Lütolf M, Weinberg K, Holländer G.
Developmental dynamics of the neural crest-mesenchymal axis in greating the thymic microany/renment. Sei Adv. 2022 May
13:8(19):eabm9844. doi: 10.1126/sciadv.abm9844. Epub 2022
May 13.
4. Handel AE, Irani SR, Holländer GA. The role of thymic tolerance in
CNS autoimmune disease. Nat Rev Neurol. 2018 Dec;14(12):723-
734. doi: 10.1038/s41582-018-0095-7.
Plus additional publications found at:
https://www.ndcn.ox.ac.uk/research/autoimmune-neurology-group and
https://www.ndcn.ox.ac.uk/team/adam-handel

The role

Reporting to Dr Adam Handel, the successful candidate will join the Oxford Autoimmune Neurology Group (OANG) within the Nuffield Department of Clinical Neurosciences.

The OANG have described the clinical and immunological features of patients with autoantibody-mediated diseases of the central nervous system (CNS). Often, these patients show highly distinctive clinical characteristics that closely associate with antigen-specific autoantibodies, including those binding to NMDA receptors, LGI1 and glutamic acid decarboxylase (GAD) amongst other antigenic targets.

In many cases, it is clear that the autoantibodies are directly pathogenic. However, there is emerging evidence that T cells and other non-B cell components of the immune system are important in the immunopathogenesis of these conditions. For example, LGI1 antibody encephalitis has one of the strongest MHC associations in human disease. Neuropathology studies have demonstrated a key role for T cells in neuronal damage in GAD antibody-associated CNS disorders.

Dr Handel runs a national referral clinic for patients with autoimmune encephalitis. As part of this clinic, patients frequently contribute to research through the donation of multiple different types of samples, including blood, cerebrospinal fluid and lymph node aspirates.

The post-holder will investigate the dynamic role of T cells in several different autoantibodyassociated CNS disorders through the integration of functional and single cell sequencing data across multiple disease-relevant compartment.

Dr Handel has recently been awarded an MRC New Investigator Award for 3 years to investigate T cells in autoimmune encephalitis. OANG has been very successful in attracting excellent scientists and clinical academics, and so there would be ample opportunities for the post-holder to contribute to many other projects as well as leading his/her own project within the group.



Responsibilities

- Perform functional assays of activation and antigen specificity in T cells
- Develop novel antigen specificity assays in T cells
- Prepare and run samples on single cell sequencing platforms
- Collaborate with other members of the team on the bioinformatic analysis of immune repertoire sequencing data
- Advise and supervise students on wet lab projects
- Identify and troubleshoot technical or scientific problems, working collaboratively with other members of the team
- Collaborate with other group members on different projects
- Work together with other team members to facilitate the effective running of the lab
- Contribute to the production of scientific reports and publications for high profile journals, including taking leadership on publications resulting from their main project
- Attend scientific seminars, meetings and to contribute to presentations or other means of disseminating results as appropriate
- Undertake other duties in the department from time to time as determined commensurate with the grade and responsibilities of this post, and any other reasonable request

Selection criteria

Essential selection criteria

- Hold a PhD / DPhil in a relevant scientific subject. The qualification can be held or submitted for examination/nearing completion by the time of starting the post
- Demonstrable experience, ability and practical success in immunology or autoimmune disease
- Expertise in cellular or molecular biology
- Excellent communication skills
- Experience with research
- Ability to apply statistical methods to address biological questions
- Strong presentation skills, both oral and written
- The ability to work well as part of a team and to establish collaborative working relationships



Desirable selection criteria

- Experience of T cell functional or antigen specificity assays
- Experience of generating and analysing immune receptor sequencing data
- Bioinformatic skills
- Publication record

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. 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: <u>https://www.jobs.ox.ac.uk/pre-employment-checks</u>

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 (OHS), and the offer of employment will be subject a successful outcome of this assessment.

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

- Night working (11pm-6am)
- Lone Working
- Working with category 3b or 4 lasers (laser safety class)
- Working with infectious pathogens (hazard group 2/3) Hazard Group 3 pathogens
- Working with blood, human products and human tissues
- Work in clinical areas with direct contact with patients (NOT administrative roles)
- Work with allergens, Eg laboratory animals, pollen, dust, fish or insects etc.
- 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 cuttingedge. 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 <u>www.ox.ac.uk/about/organisation</u>.

Medical Sciences Division

The Medical Sciences Division is an internationally recognized centre of excellence for biomedical and clinical research and teaching, and 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 visit: www.medsci.ox.ac.uk

The Nuffield Department of Clinical Neurosciences

The Nuffield Department of Clinical Neurosciences (NDCN), led by Prof Kevin Talbot, has over 400 staff and 150 postgraduate students. NDCN has an established research and teaching portfolio with a national and international reputation for excellence.

NDCN is based in high quality research and clinical facilities in the West Wing of the John Radcliffe Hospital, alongside the Department's world-class Wellcome Centre for Integrative Neuroimaging (WIN) and the Weatherall Institute of Molecular Medicine (which houses 3 of our research groups), and provides the ideal facilities to translate research from bench to bedside. In keeping with the award of NIHR Comprehensive Biomedical Research Centre status, to a partnership between Oxford University and the Oxford Radcliffe Hospitals NHS Trust, we have developed a highly integrated and interdisciplinary environment in which research, teaching, clinical training and clinical care interact. This enables us to establish new approaches to the understanding, diagnosis and treatment of brain diseases. To this end the Department fosters collaborations worldwide and warmly welcomes visiting scientists, clinical fellows and students. The Department comprises six sections:

For more information visit: www.ndcn.ox.ac.uk



Medical Research Council Brain Network Dynamics Unit

The MRC BNDU is directed by Professor Peter Magill and is exceptionally multidisciplinary, integrating research programmes that span clinical, experimental and computational neuroscience. The Unit's collective goal is to understand and exploit the moment-to-moment interactions between nerve cells that are critical for brain functions, with a special focus on the brain circuits underlying movement and memory.

For more information visit: www.mrcbndu.ox.ac.uk

Nuffield Division of Anaesthesia

NDA is led by Associate Professor Andrew Farmery. The NDA is committed to the development and maintenance of internationally competitive research programmes in pain and consciousness; respiration and hypoxia; adult and neuro-intensive care; simulation and human factors training.

For more information visit www.nda.ox.ac.uk

Division of Clinical Neurology

DCN is led by Professor David Bennett. DCN is committed to the development of research programs that improve understanding of the nervous system in health and disease.

For more information visit www.dcn.ox.ac.uk

The Wellcome Centre for Integrative Neuroimaging (WIN)

WIN is a multi-disciplinary neuroimaging research facility led by Heidi Johansen-Berg. WIN aims to bridge the gap between laboratory neuroscience and human health, by performing multi-scale studies spanning from animal models through to human populations. It focuses on the use of Magnetic Resonance Imaging (MRI) for neuroscience research, along with related technologies such as Transcranial Magnetic Stimulation, transcranial Direct Current Stimulation, MEG and EEG. WIN has core locations at the John Radcliffe Hospital (FMRIB), Warneford Hospital (OHBA) and University Science area (BSB).

For more information visit www.win.ox.ac.uk

Nuffield Laboratory of Ophthalmology

NLO is led by Professor Russell Foster, who leads the Sleep & Circadian Neuroscience Institute. NLO pursues scientific and clinical research into a range of areas related to vision, the eye and circadian neuroscience.

For more information visit www.nlo.ox.ac.uk

Centre for the Prevention of Stroke & Dementia

CPSD is led by Professor Peter Rothwell. The centre carries out research that increases understanding of the causes of cerebrovascular disease. Its aims are to improve prevention of stroke and dementia by earlier diagnosis, more reliable prognostication, and more effective use of existing preventive treatments in routine clinical practice.

For more information visit www.cpsd.ox.ac.uk

Working at NDCN

NDCN actively promotes a healthy work life balance amongst employees through a number of family friendly policies. See <u>https://hr.admin.ox.ac.uk/staff-benefits</u> for further information.



The University of Oxford is a member of the <u>Athena SWAN Charter</u> and holds an institutional Bronze Athena SWAN award. The Department of Clinical Neurosciences holds a departmental Silver Athena award in recognition of its efforts to introduce organisational and cultural practices that promote advancement of gender equality: representation, progression and success for all.

How to apply

Applications are made through our e-recruitment system and you will find all the information you need about how to apply on our Jobs website <u>https://www.jobs.ox.ac.uk/how-to-apply</u>. 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.

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

Help and support is available from: <u>https://hrsystems.admin.ox.ac.uk/recruitment-support</u> If you require any further assistance please email <u>recruitment.support@admin.ox.ac.uk</u>. To return to the online application at any stage, please go to: <u>www.recruit.ox.ac.uk</u>. 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: <u>https://compliance.admin.ox.ac.uk/job-applicant-privacy-policy</u>. The University's Policy on Data Protection is available at: <u>https://compliance.admin.ox.ac.uk/data-protection-policy</u>.

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: <u>https://hr.admin.ox.ac.uk/the-ejra</u>

For **existing** employees, any employment beyond the retirement age is subject to approval through the procedures: <u>https://hr.admin.ox.ac.uk/the-ejra</u>

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 <u>https://hr.admin.ox.ac.uk/staff-benefits</u>

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 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 website includes practical information about settling in the area, including advice on relocation, accommodation, and local schools. See <u>https://welcome.ox.ac.uk/</u> There is also a visa loan scheme to cover the costs of UK visa applications for staff and their dependents. See <u>https://staffimmigration.admin.ox.ac.uk/visa-loan-scheme</u>.

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 https://hr.admin.ox.ac.uk/my-family-care

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 https://childcare.admin.ox.ac.uk/.

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 https://edu.admin.ox.ac.uk/disability-support.

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 <u>https://edu.admin.ox.ac.uk/networks</u>

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 <u>www.newcomers.ox.ac.uk</u>.

