

Job title	Senior Postdoctoral Research Scientist in Mass Spectrometry-based Immunopeptidomics
Division	Medical Sciences
Department	Nuffield Department of Medicine
Location	Oxford Centre for Immuno-Oncology, Old Road Campus Research Building, Roosevelt Drive, Headington, Oxford, OX3 7DQ
Grade and salary	Research Grade 8: £48,235 - £57,255 with a discretionary range to £64,228 p.a. This is inclusive of a pensionable Oxford University Weighting of £1,500 per year.
Hours	Full time
Contract type	Fixed-term contract until 31 December 2027 Funding is provided by GSK
Reporting to	Eleni Adamopoulou - Group Leader in T-cell Epitope Discovery, Timothy Elliot - Kidani Professor in immuno-Oncology
Vacancy reference	179719

Additional information	This role meets the eligibility requirements for a Skilled Worker Certificate of Sponsorship under UK Visas and Immigration legislation.
About us	<ul style="list-style-type: none"> University of Oxford - www.ox.ac.uk/about/organisation Nuffield Department of Medicine (NDM) - https://www.ndm.ox.ac.uk Unit - https://www.immonc.ox.ac.uk/
What we offer	https://hr.admin.ox.ac.uk/staff-benefits <ul style="list-style-type: none"> An excellent contributory pension scheme 38 days annual leave A pensionable Oxford University Weighting allowance of £1,500 per annum (pro rata) A comprehensive range of childcare services Family leave schemes Cycle loan scheme Discounted bus travel and Season Ticket travel loans Membership to a variety of social and sports clubs A welcoming and diverse community

Research topic	T-cell Epitope Discovery and Vaccine Design
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The role

We are seeking a highly motivated Senior Postdoctoral Research Scientist in Immunopectidomics with a strong interest in cancer immunology and innovative approaches for antigen and epitope discovery in cancer vaccine development. You will have hands-on experience with mass spectrometry-based proteomics, including instrument operation, maintenance, and data analysis workflows.

You will contribute to a research programme focused on deciphering the molecular architecture of the HLA antigen processing and editing machinery, and investigating how it shapes tumour-specific antigen presentation. Your project will focus on identifying tumour-specific and immunogenic antigens from primary tumour tissues using advanced immunopectidomics approaches.

This work is part of a collaborative, multi-group initiative to design and deliver cancer-preventive vaccines, jointly led by the University of Oxford and GSK.

You will join the T-cell Epitope Discovery Group, led by Dr Eleni Adamopoulou, within the Centre for Immuno-Oncology, directed by Professor Tim Elliott.

Responsibilities

You will:

- Perform sample preparation, LC-MS/MS data acquisition, and in-depth data analysis to support the discovery and validation of tumour-associated antigens and neoantigens.
- Maintain mass spectrometry instrumentation to ensure reliable performance and data quality.
- Develop and implement novel highly-sensitive immunopectidomics workflows for data acquisition by LC-MS/MS pipelines to advance neoantigen discovery.
- Maintain accurate and comprehensive records of experimental workflows, results and analyses.
- Formulate research questions, conduct independent investigations, and analyse complex datasets to generate novel insights in immunopectidomics and cancer immunology.
- Independently manage research projects, including planning, coordination, and timely execution of experimental and administrative tasks.
- Provide training, supervision, and technical guidance to junior researchers and collaborators.
- Keep up to date with latest developments in the fields of immunopectidomics and cancer vaccine research and communicate findings to the rest of the team.
- Present research findings at internal and external meetings, national and international conferences.
- Collaborate in the preparation of scientific reports, grant applications, and manuscripts for publication.
- 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.
- Undertake mandatory training as required by the University, Division and Department. The specific list of training courses may change from time-to-time, in response to both legal and internal University requirements.

Job descriptions can never be comprehensive and you may be required to undertake other similar tasks and responsibilities.

Selection criteria

Essential



- Hold a PhD/DPhil in Chemistry, Biochemistry, Immunology, Molecular Biology, or a related field.
- Strong knowledge of biochemistry and molecular biology relevant to proteomics and immunopeptidomics.
- Hands-on experience operating and maintaining Bruker and/or Thermo LC-MS/MS platforms.
- Proficiency in mass spectrometry data acquisition methods (DDA, DIA, PRM) and associated data analysis using tools such as PEAKS, MSFragger, MaxQuant, Proteome Discoverer, and Skyline.
- Experience in developing novel mass spectrometry-based workflows in proteomics and immunopeptidomics.
- Ability to manage multiple projects in a fast-paced environment with aggressive timelines
- Excellent interpersonal and communication skills, with a collaborative mindset and the ability to build strong relationships with both internal teams and external partners

Desirable

- Working knowledge of immunology, and/or a willingness to learn.
- Hands-on experience with quantitative mass spectrometry assays.
- Proficient in computational skills and large dataset analysis, with working knowledge of coding languages such as R or Python.

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: <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:

- Lone Working
- Travel outside of Europe or North America on University Business



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 <https://www.jobs.ox.ac.uk/how-to-apply>.

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.

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). 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. Please note using a long file name may prevent you from uploading your documents.

- http://www.ox.ac.uk/about_the_university/jobs/research/

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@ndm.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**, which with effect from 1 October 2023 will be 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.

