

Job title	Research Assistant
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 6: £34,982 - £40,855 with a discretionary range to £45,628 p.a. (pro rata). This is inclusive of a pensionable Oxford University Weighting of £1,500 per year (pro rata).
Hours	Full time
Contract type	Fixed-term contract until 30 November 2026 Funding is provided by Bill and Melinda Gates Foundation
Reporting to	Geraldine Gillespie, PI/Group Head
Vacancy reference	179347

Additional information	This role meets the eligibility requirements for a Skilled Worker Certificate of Sponsorship.
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	HLA-E-based therapeutic vaccines that target HPV
Principal Investigator / supervisor	Geraldine Gillespie
Project team	https://www.immonc.ox.ac.uk

Project web site	https://www.ndm.ox.ac.uk/team/geraldine-gillespie
Funding partner	The funds supporting this research project are provided by the Bill and Melinda Gates Foundation
Recent publications	HLA-E: Immune Receptor Functional Mechanisms Revealed by Structural Studies. Gillespie GM. et al, (2025), Immunological reviews, 329

The role

We are seeking to appoint a Research Assistant to join the research group headed by Professor Geraldine Gillespie and Emeritus Professor Andrew McMichael in the Nuffield Department of Medicine, Centre for Immuno-Oncology, which carries out basic and translational immunological research on the non-classical major histocompatibility molecule (MHC), HLA-E. The research group has developed novel ways of exploring how CD8+ T cells specific for HLA-E, bound to peptides, can be harnessed to attack pathogen-infected or cancer cells. The current project, funded by the Bill and Melinda Gates Foundation, aims to develop HLA-E-based preventative and therapeutic strategies against infection with the human papillomavirus (HPV), which causes cancers of the head and neck region and the anogenital tract. The project will involve a collaboration with the research group of Dr. César López-Camacho at the Nuffield Department of Medicine, Jenner Institute, an expert in mRNA-based vaccine development.

The work will involve establishing in vitro co-culture systems of primary CD8+ T cells with 3D cultures of HPV-containing keratinocytes and fibroblasts (e.g., spheroids or organotypic raft cultures) for testing engineered T-cell therapies in pre-clinical proof-of-concept studies. In addition, the work could encompass setting-up immune cell co-culture or organoid systems to model the immune response to novel HPV mRNA vaccine candidates. You will primarily use sterile tissue culture and molecular biology and complement these with basic immunological or imaging techniques, such as flow cytometry and immunofluorescence microscopy. There is significant scope to expand the project with initial success, for instance, to develop the obtained initial findings into novel, high-throughput live-cell imaging-based screening methods using the xCELLigence eSight real-time cell analyser, and to generate T cell clones to HPV epitopes using in vitro priming methods. There will also be opportunity to work with the López-Camacho team to process murine blood and tissue samples following vaccination trials.

You will have a good understanding of immunology and tissue culture techniques as well as an aptitude for lab-based research is sought to join the postdoctoral staff and DPhil students in our team working on the above. You will play a key role in driving this research project forward and – depending on your experience/expertise and progress after initial training – you may take responsibility for expanding a particular aspect of the project and coordinating with further collaborators within or outside our department.

Responsibilities

You will:

- Contribute to basic and translational research to develop and optimize in vitro model systems to test novel T-cell immunotherapies and vaccines targeting HPV-associated diseases. Following initial training, you will be expected to plan and independently carry out experimental work (managing work to meet deadlines as needed);
- Determine the most appropriate methodologies to test hypotheses, and identify suitable alternatives if technical problems arise;
- Perform lab-based experimental work of a high standard, to carry out techniques carefully and accurately and keeping good records of all work performed. Once sufficient experience is gained, you will also be expected to trouble-shoot methods where needed, and to establish new methods/techniques;
- Contribute to wider project planning, adapt experimental protocols and present scientific data from a variety of sources;
- Analyse, display (in the form of graphs, etc.) and interpret data (with reference to controls, etc.), and present results to/discuss them with other team members/the group head. You will also be expected to present data in regular laboratory group meetings, and where appropriate, other internal meetings and on conference calls with collaborators, as required;
- Contribute to preparation of research reports and publications (by provision of data, and/or drafting of sections of text if required);
- Establish and maintain a good general understanding of the research field, e.g., by reading key review articles/research papers and attending meetings/seminars. This will enable you to understand and contribute to discussions in small-group and team meetings;
- Work synergistically with other members of the research team, facilitating their progress by providing assistance, resources and/or training (e.g., for new staff or students) as required; and also interact effectively with collaborators;
- Contribute to the smooth running of the laboratory and share communal duties in the laboratory;
- Be accountable for personal professional conduct within the project, and to ensure that work in the Department is conducted safely, legally and in accord with the highest standards of data protection;
- 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 BSc degree in a relevant biomedical science area.
- Experience with mammalian tissue culture and, ideally, with establishing 3D tissue culture systems (e.g., spheroids or organoids).
- Experience growing primary CD8+ T cells and T cell lines.
- Experience with flow cytometry and at least one of the following - immunohistochemistry, confocal microscopy, live-cell imaging, Western blotting.
- Experience of PCR and real-time PCR, and ideally, molecular cloning techniques.
- Excellent communication skills, and ability to make regular presentations to laboratory and department meetings.
- Ability to work independently as well as part of a multidisciplinary team.

Desirable

- Hold a MSc with a specific focus on Immunology or Virology.
- Experience with lentiviral/retroviral transduction.
- Experience of working with murine tissue samples.
- Authorship on one or more scientific publication.



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:

- Night working (11pm-6am)
- Lone Working
- Work in hot or cold environments
- Working with infectious pathogens (hazard group 2/3) - Hazard Group 3 pathogens
- Working with blood, human products and human tissues
- 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:



Additional security pre-employment checks

This job includes duties that will require additional security pre-employment checks:

- A satisfactory basic Disclosure and Barring Service check
- University security screening (eg identity checks)

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.

