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| <b>Job title</b>         | IMMPROVE Postdoctoral Research Assistant   |
| <b>Division</b>          | Medical Sciences   |
| <b>Department</b>        | Nuffield Department of Medicine  |
| <b>Location</b>          | Pandemic Sciences Institute, Building for Genomic Medicine, Roosevelt Drive, Oxford, OX3 7BN<br>And on occasion the John Radcliffe Hospital, Headley Way, Oxford OX3 9DU |
| <b>Grade and salary</b>  | Grade 7: £36,024 - £44,263 with a discretionary range to £48,350 per annum   |
| <b>Hours</b>             | Full time  |
| <b>Contract type</b>     | Fixed-term contract for 3 years<br>Funding is provided by the MRC  |
| <b>Reporting to</b>      | Nicholas Provine, Group Leader and Professor Paul Klenerman  |
| <b>Vacancy reference</b> | 173578   |

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| <b>Additional information</b> | This role meets the eligibility requirements for a Skilled Worker Certificate of Sponsorship or a Global Talent Visa under UK Visas and Immigration legislation. Therefore, the Nuffield Department of Medicine welcomes applications from international applicants who require a visa.   |
| <b>About us</b>               | <ul style="list-style-type: none"> <li>University of Oxford - <a href="http://www.ox.ac.uk/about/organisation">www.ox.ac.uk/about/organisation</a></li> <li>Nuffield Department of Medicine (NDM) - <a href="https://www.ndm.ox.ac.uk">https://www.ndm.ox.ac.uk</a></li> <li>Unit - <a href="http://www.psi.ox.ac.uk">www.psi.ox.ac.uk</a></li> </ul>   |
| <b>What we offer</b>          | <a href="https://hr.admin.ox.ac.uk/staff-benefits">https://hr.admin.ox.ac.uk/staff-benefits</a> <ul style="list-style-type: none"> <li>An excellent contributory pension scheme</li> <li>38 days annual leave</li> <li>A comprehensive range of childcare services</li> <li>Family leave schemes</li> <li>Cycle loan scheme</li> <li>Discounted bus travel and Season Ticket travel loans</li> <li>Membership to a variety of social and sports clubs</li> <li>A welcoming and diverse community</li> </ul> |

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| <b>Research topic</b>                      | Vaccine immunology  |
| <b>Principal Investigator / supervisor</b> | Dr Nicholas Provine, Professor Paul Klenerman   |
| <b>Project web site</b>                    | <a href="https://www.psi.ox.ac.uk/our-team/nick-provine">https://www.psi.ox.ac.uk/our-team/nick-provine</a><br><a href="https://www.psi.ox.ac.uk/our-team/paul-klenerman">https://www.psi.ox.ac.uk/our-team/paul-klenerman</a>  |
| <b>Funding partner</b>                     | The funds supporting this research project are provided by the MRC  |
| <b>Recent publications</b>                 | <a href="https://pubmed.ncbi.nlm.nih.gov/36330560/">https://pubmed.ncbi.nlm.nih.gov/36330560/</a><br><a href="https://pubmed.ncbi.nlm.nih.gov/34529726/">https://pubmed.ncbi.nlm.nih.gov/34529726/</a><br><a href="https://pubmed.ncbi.nlm.nih.gov/33510029/">https://pubmed.ncbi.nlm.nih.gov/33510029/</a> |

## The role

The Provine Group is a newly established research group in the Pandemic Sciences Institute (physically based within the Centre for Human Genetics) that is focused on unravelling the mechanisms regulating vaccine-induced immune responses – with focuses on both T cell and B cell responses. The group is currently small (3 DPhil students and 1 RA). The group utilizes a combination of cutting-edge cellular immunology and transcriptomic techniques on samples from human vaccine trials, in vivo models, and human in vitro systems to investigate and probe pathways of interest.

Two major focuses in the group are (1) identifying the differential regulation of immunity induced by different vaccine technologies (e.g. viral vectors, mRNA vaccines); (2) utilizing samples from individuals on immunosuppressive medications to identify pathways critical for regulation of vaccine-induced immunity.

The specific role is for a Postdoctoral Research Assistant who will work on a project as part of the MRC-funded IMMPROVE consortium (co-headed by Profs Klenerman and Lambe) - <https://www.ox.ac.uk/news/2023-10-10-oxford-lead-global-collaboration-research-and-develop-next-generation-covid-19-and>.

The project will develop and optimize an in vivo CRISPR-based screening system to identify critical regulators of vaccine-induced T cell immunity using in vivo pre-clinical models (e.g, <https://pubmed.ncbi.nlm.nih.gov/38012416/>). Once established, this experimental system will be applied to comparing multiple vaccine platforms and differential regulation of CD4 and CD8 T cell responses. While the work will be primarily performed in the Provine lab, Paul Klenerman will have a major role in the project and some aspects of the project may be performed in his space.

Interested applicants are encouraged to reach out to discuss the role and learn more about the group – [nicholas.provine@ndm.ox.ac.uk](mailto:nicholas.provine@ndm.ox.ac.uk).

## Responsibilities

You will:

- Develop and optimize a CRISPR-based screening system to manipulate T cell biology in vivo.
- Perform in vivo immunization experiments, sample collection, and analysis.
- Manage your own research and administrative activities, within guidelines provided by the lab head(s).
- Determine the most appropriate methodologies to test hypotheses, and identify suitable alternatives if technical problems arise together with reviewing and refining working hypotheses as appropriate.



- Analyse data and prepare reports (written and/or oral) to the group, the university community, and broader scientific audiences.
- Collaborate in the preparation of scientific reports and journal articles and occasionally present papers and posters.
- Develop ideas for generating research income, new scientific techniques and contribute ideas for new research projects.
- Act as a source of information and advice to other members of the group on scientific protocols and experimental techniques.
- Work as part of the wider lab to maintain a positive and supportive work environment. Including facilitating smooth day-to-day running of the lab.
- Participate and support the development of junior lab members.
- Assist on various other projects in a flexible manner (time permitting).
- 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.

## Selection criteria

### Essential

- Hold a PhD/DPhil (or close to completion) in biology, immunology, microbiology, or equivalent.
- Ability to obtain a UK Home Office license (PIL A/B).
- Possess sufficient specialist knowledge in the discipline to work within established research programmes.
- Ability to manage own research and administrative activities.
- Experience with relevant molecular biology skills to develop lentiviral vector/CRISPR systems.
- Experience working with laboratory in vivo tissues.
- Experience performing immune assays (such as: flow cytometry or immunofluorescence microscopy, ELISA/ELISpots).
- Ability and experience sharing data and results with colleagues and wider scientific audience.
- Highly self-motivated and able to work independently.

### Desirable

- Experience generating CRISPR libraries.
- Experience with analysis of CRISPR screening data.
- Experience with single-cell RNA-sequencing data analysis



# 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
- Regular manual handling
- Working with infectious pathogens (hazard group 2/3) - Hazard Group 3 pathogens
- 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/](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

## 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](mailto:recruitment@ndm.ox.ac.uk)

To return to the online application at any stage, please go to: [www.recruit.ox.ac.uk](http://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 70<sup>th</sup> 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.

