



**THE JENNER  
INSTITUTE**  
DEVELOPING INNOVATIVE VACCINES



<b>Job title</b>	Postdoctoral Researcher
<b>Division</b>	Medical Sciences
<b>Department</b>	Nuffield Department of Medicine
<b>Location</b>	Jenner Institute, Old Road Campus Research Building, Roosevelt Drive, Headington, Oxford, OX3 7DQ
<b>Grade and salary</b>	Grade 7: Salary in range £36,024 - £44,263 per annum
<b>Hours</b>	Full time
<b>Contract type</b>	Fixed-term contract for 12 months in the first instance Funding is provided by the UK Research and Innovation/European Commission
<b>Reporting to</b>	Professor Adrian Hill
<b>Vacancy reference</b>	171719

<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="https://www.jenner.ac.uk/">https://www.jenner.ac.uk/</a></li> </ul>
<b>What we offer</b>	<p><a href="https://hr.admin.ox.ac.uk/staff-benefits">https://hr.admin.ox.ac.uk/staff-benefits</a></p> <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>



**Athena  
SWAN**  
Silver Award



## The role

An enthusiastic, self-motivated individual will join a research programme for vaccine development against Malaria and a broad range of infectious diseases that are mainly transmitted by arthropods. You will work independently in the molecular design of vaccines, such as VLP, subunit, viral-vectored or mRNA platforms, and be involved in the early stages of pre-clinical vaccine development exploring the immunogenicity of such vaccine developments in pre-clinical models. It is expected that you will provide guidance/supervision as required to less experienced members of the research group, including research assistants, technicians, PhD, and project students.

## Responsibilities

You will:

- Manage own academic research and administrative activities. This involves small-scale project management, to coordinate multiple aspects of work to meet deadlines.
- Conduct rigorous scientific research to the highest standards of the field.
- Independently research published material and keep up to date with relevant literature.
- Adapt existing and develop new scientific techniques and experimental protocols.
- Test hypotheses and analyse scientific data from a variety of sources, reviewing and refining working hypotheses as appropriate.
- Contribute ideas for new research projects.
- Collaborate in the preparation of scientific reports and journal articles and occasionally present papers and posters.
- Act as a source of information and advice to other members of the group on scientific protocols and experimental techniques.
- Carry out collaborative projects with colleagues in partner institutions and research groups.
- Provide statistical analysis of data and contribute to the overall planning of studies and identify and troubleshoot technical or scientific problems.
- Attend scientific seminars, meetings, and training, as required by the group leader.
- Contribute and collaborate to manuscript preparation, presentations, and other means of disseminating results.
- Use specialist scientific equipment in a laboratory environment and ensure that work in the laboratory is conducted safely, making appropriate use of the dedicated research areas and safety procedures.
- 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 Biochemistry, Molecular Biology, Vaccinology or related field.
- Relevant proven wet-lab experience in mRNA biology, biogenesis, biosynthesis, and modifications for de novo mRNA synthesis.
- Possess sufficient specialist knowledge in cellular and molecular biology, with experience working with DNA, in vitro transcription, RNA, and biochemistry modification of nucleotide molecules.
- Ability to design, clone, and transfect expression plasmids and explore antigen expression in cell lines.
- Experience with *in vivo* models and handling.
- Ability to obtain an animal license.
- Basic knowledge of proteomics, including protein expression, characterization, and analysis.
- Ability to contribute ideas for new research projects and research income generation.
- Excellent communication skills, including the ability to write for publication, present research proposals and results, and represent the research group at meetings.

## Desirable

- Experience in encapsulation of cargo molecules, with strong knowledge of mRNA stability and lipidic encapsulation.
- Basic knowledge of microscopy and imaging.
- Experience in viral-like particle cloning and assembly.
- Hands-on experience engineering RNA molecules for various purposes is strongly preferred.
- Experience with the following techniques is highly preferred: RT-qPCR, CRISPR/Cas9, cell culture, immunohistochemistry, ELISA, ELISpot, Flow Cytometry, and Western blot.
- Viral and non-viral nucleic acid formulation and delivery.
- Nucleic acid manipulation, modification, and analytical approaches.



# 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:

- 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:



- Travel outside of Europe or North America on University Business
- Regular manual handling

## 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.

