

Job title	Vaccine Technology Development Scientist
Division	Medical Sciences
Department	Nuffield Department of Medicine
Location	Pandemic Sciences Institute, Institute of Developmental and Regenerative Medicine, Old Road Campus, Headington, Oxford, OX3 7TY
Grade and salary	Grade 7: £36,024 - £44,263 with a discretionary range to £48,350 pa
Hours	Full time
Contract type	Fixed-term contract for 3 years Funding is provided by the Chinese Academy of Medical Sciences and the Calleva Foundation
Reporting to	Prof. Dame Sarah Gilbert and Dr Bruno Douradinha
Vacancy reference	173174

Additional information	This role meets the eligibility requirements for a Skilled Worker Certificate of Sponsorship under UK Visas and Immigration legislation. Therefore, the Nuffield Department of Medicine welcomes applications from international applicants who require a visa.
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 - www.psi.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 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	Vaccine platform technology development
Principal Investigator	Prof. Sarah Gilbert
Project team	Viral vector development team
Funding partner	The funds supporting this research project are provided by the PSI

The role

Professor Gilbert's team led the rapid development of a replication-deficient simian adenoviral vectored vaccine against SARS-CoV-2. This built on years of experience in vaccine development, and experience of vaccine design, preclinical testing, manufacturing and clinical testing. During the SARS-CoV-2 pandemic, both mRNA vaccines and adenoviral vectored vaccines were used very widely for the first time, and a large number of studies were conducted in vaccine safety, immunogenicity and efficacy. There were clear benefits of both technologies, but there is still room for improvement in vaccine thermostability, costs of goods, ease of vaccine administration, reduction of adverse events, and greater protection against respiratory pathogens in particular.

We are now seeking to recruit a Vaccine Technology Development Scientist who will work on technology development as part of an ongoing research programme led by Professor Sarah Gilbert. You will report to and work alongside a senior scientist with experience in this area of research. An innovative approach to vaccine design, considering both the antigen, the technology used for delivery, and the method of vaccine administration will be essential in this project. Vaccine manufacturability and GMP compliance will need to be considered during this project. You will provide guidance to less experienced members of the research group including research assistants, technicians, and PhD and project students.

Responsibilities

You will:

- Manage your own academic research and administrative activities. This involves small scale project management, to co-ordinate multiple aspects of work to meet deadlines
- Adapt existing and develop new scientific techniques and experimental protocols as appropriate to the project ensuring exemplary levels of accuracy and traceable documentation.
- Test hypotheses and analyse scientific data from a variety of sources, reviewing and refining working hypotheses as appropriate
- Collaborate in the preparation of scientific reports and journal articles and present your research to various audiences
- Act as a source of information and advice to other members of the group on scientific protocols and experimental techniques
- Represent the research group at external meetings/seminars, either with other members of the group or alone
- Be responsible, with others, for the biological safety of the laboratory and writing of necessary safety documentation.
- Perform any other comparable duties as may be required for the efficient and safe running of the laboratory on a day to day basis.
- 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 Microbiology, Immunology, and/or Molecular Biology.
- Extensive molecular biology experience including plasmid design, cloning, PCR, RT-PCR, RT-qPCR, and western blot.
- Experience in immunological methods, such as ELISA, ELISpot, FACS, among others
- Aseptic cell culture and virology experience, preferably using viruses as vaccine vectors, or experience of working with nucleic acid vaccines (DNA or mRNA)
- A methodical and careful approach to working in the laboratory with exceptional data recording skills.
- Possess sufficient specialist knowledge in vaccine technology development to work within the established research program.
- Self-motivated with the ability to manage own academic research and associated activities.
- Excellent communication skills, including the ability to write for publication, present research proposals and results, and represent the research group at meetings.

Desirable

- Experience or understanding of GMP manufacturing.
- Previous experience writing SOPs.
- Previous experience of contributing to publications/presentations, with at least one first author 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:

- Lone Working
- Work with any substance which has any of the following pictograms on their MSDS:



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

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.