

Job title	Research Assistant - Computational
Division	Medical Sciences
Department	Nuffield Department of Medicine
Location	Ludwig Institute for Cancer Research, Old Road Campus Research Building, Roosevelt Drive, Headington, Oxford, OX3 7DQ
Grade and salary	Grade 6: £32,332 - £38,205 with a discretionary range to £41,732 p.a. (pro rata)
Hours	Full time
Contract type	Fixed-term contract for 12 months Funding is provided by the Ludwig
Reporting to	Professor Xin Lu and Professor Benjamin Schuster-Boeckler
Vacancy reference	172112

Additional information	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.
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 - http://www.ludwig.ox.ac.uk/
What we offer	<p>https://hr.admin.ox.ac.uk/staff-benefits</p> <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



The role

At the Ludwig Institute for Cancer Research we are investigating all stages of cancer, from the risk of disease through to new treatment opportunities. Our research groups are interested in the signalling pathways that influence cancer initiation and progression, with a focus on infection, inflammation and cancer epigenetics. We aim to advance cancer prevention, early diagnosis and effective treatment.

We are seeking a Research Assistant with computational skills and the biological understanding of cancer-causing pathogens to work on computational analysis within the institute, and to carry out research in the laboratory to validate discoveries in computational research under the supervision of Benjamin Schuster Boeckler and Professor Xin Lu. Expertise with the computational analysis of single-cell RNAseq and ATAC-seq data is required, as well as a good grasp of data visualisation in R. A background in genomics and/or cancer research would also be of great benefit.

Responsibilities

You will:

- Carry out integrative analysis of single-cell RNA and ATAC seq data.
- Provide statistical analysis plans for studies and undertake day to day planning of work.
- Develop or tailor analytical tools and resources appropriate to the work in collaboration with members of the research team.
- Select, follow, and adapt experimental protocols. Check, validate and clean data.
- Contribute to wider project planning, including ideas for new research projects.
- Determine the most appropriate methodologies to test hypotheses, and identify suitable alternatives if technical problems arise.
- Identify and troubleshoot technical or scientific problems.
- Write up statistical analysis and results which may be used for relevant sections of manuscripts, presentations and other means of disseminating results.
- Carry out experiments to validate computational findings using cell/ molecular biology techniques.
- Attend scientific seminars, meetings and training as appropriate.
- Contribute ideas and communicate effectively with database experts and scientific programmers.
- 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 degree in a life science or computational subject.
- Demonstrable experience and ability in biostatistics or bioinformatics.
- Previous experience in a laboratory research setting, and use of techniques including but not limited to PCR, qPCR, gel electrophoresis, western blots, and cell culture.
- Experience in the analysis of single-cell RNAseq and ATAC-seq data.
- Proficiency in the use of R and the Seurat package.
- Demonstrable ability to organise and prioritise work efficiently whilst delivering results to the required standard and to an agreed schedule.
- Excellent written and verbal communication skills.

Desirable

- A post-graduate degree in Biostatistics, Mathematics, Statistics, Computing, Mathematical Biology or a related subject.
- Understanding of chromatin modifications and gene regulation.
- A demonstrable background in genomics and/or cancer research.

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:

- 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.