



CENTRE *for*
HUMAN
GENETICS



Job title	Front End Engineer
Division	Medical Sciences
Department	Nuffield Department of Medicine
Location	Centre for Human Genetics, Building for Genomic Medicine, Old Road Campus, Roosevelt Drive, Headington, Oxford, OX3 7BN
Grade and salary	Grade 8: Salary in range £47,085 - £52,783 per annum The salary quoted is made up of two elements: your base salary and an Oxford University Weighting (OUW). This is a fixed-rate payment in addition to your base salary.
Hours	Full time
Contract type	Fixed-term contract until 30 December 2026 Funding is provided by Johnson and Johnson
Reporting to	Stephen Taylor, Head of Integrative Computational Biology
Vacancy reference	174310

Additional information	This role meets the eligibility requirements for a Skilled Worker Certificate of Sponsorship under UK Visas and Immigration legislation, but eligibility will depend on the chosen candidate's details so, if a visa is required, this will be determined once the selection has been completed. 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) - http://www.ndm.ox.ac.uk Unit - http://www.chg.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	Biological Data Analysis, Integration, Visualisation
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Athena
SWAN
Silver Award



Principal Investigator / supervisor	Stephen Taylor
Project team	NDM Data Platform Group
Project web site	https://mdv.molbiol.ox.ac.uk/
Funding partner	The funds supporting this research project are provided by Johnson and Johnson

The role

The Johnson & Johnson-Oxford Cartography Consortium is embarking on an ambitious two-year project aimed at revolutionising the accessibility and usability of the Cartography Atlas data through the creation of the Cartography Atlas Viewer and Explorer (CAVE). CAVE, based on the Multi-Dimensional Viewer (MDV) data platform (<https://mdv.molbiol.ox.ac.uk/>), will enable researchers to explore vast multiomic datasets and other biological data types through a user-friendly, browser-based interface. This project will leverage the visualisation capabilities of MDV to develop an intuitive, centralised data portal, significantly enhancing scientific insight across various therapeutic areas.

The consortium has generated a wealth of unique cross-discipline data focused on priority J&J therapeutic targets – involving 9 disciplines across 15 health or disease conditions. The project now benefits from an experienced, collaborative team and an established and refined multiomics platform. The comprehensive data collated has already revealed areas of interest to J&J and Oxford but is still in its infancy. This project aims to accelerate this analysis, enabling the delivery of a multiomic, cross-tissue and cross-disease Cartography Atlas, accessible via a user-friendly, web-based platform that allows the full breadth of the analysed Cartography data to be readily queried and visualised. This includes incorporating using Large Language Models to help users analyse their data.

We are seeking an exceptional Front-End JavaScript Engineer to join our team. You will play a pivotal role in developing CAVE, ensuring it supports diverse data formats and integrates seamlessly with other tools and systems used by Johnson & Johnson and Oxford researchers.

Responsibilities

You will:

- Develop and maintain user interfaces using the MDV framework as part of the Cartography Atlas Viewer and Explorer Project (CAVE).
- Implement support for various omics data formats and integrate them into CAVE.
- Collaborate with focus groups to gather feedback and refine the user interface and experience.
- Develop and integrate Python and R APIs for enhanced functionality and interoperability.
- Provide training and documentation to users, including webinars, data forums, and workshops.
- Stay updated with advances in web technologies and apply them to improve the platform.
- 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 Master's degree in Computer Science, Engineering, Bioinformatics, or a related computational field.
- Experience developing user interfaces and UX Design.
- Strong proficiency in JavaScript, including ES6+ syntax.
- Familiarity with HTML5 and CSS3, including responsive design and accessibility best practices.
- Experience with modern web development frameworks, such as React, Angular, or Vue.js.
- Experience with data visualisation libraries, such as D3.js.
- Knowledge of best practices in web performance optimisation when working with large datasets.
- Strong collaboration and communication skills.
- A solid understanding of web application architecture and RESTful APIs.

Desirable

- Strong interest or knowledge of biological data and systems.
- Experience with Large Language Models APIs.
- Familiarity with version control systems, such as Git.
- Familiarity with CI/CD practices.
- Knowledge of Python and / or R.
- Experience of Typescript.

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
- Travel outside of Europe or North America on University Business:



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.

