OXFORD-GSK INSTITUTE of MOLECULAR and COMPUTATIONAL MEDICINE

NUFFIELD DEPARTMENT of MEDICINE

UNIVERSITY OF OXFORD

Job title	Senior Bioinformatician, Oxford-GSK Institute for Molecular and Computational Medicine
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: £45,585 - £54,395 with a discretionary range to £59,421 p.a.
Hours	Full time
Contract type	Fixed-term contract until 30 September 2027 Funding is provided by GSK
Reporting to	Dr Avigail Taylor, Technical Lead in Bioinformatics, with oversight from Dr Georgina Kerr, Senior Programme Manager
Vacancy reference	171148

Hybrid working arrangements	**The successful person will need to work on site for a minimum of 4 days per week**
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	• University of Oxford - www.ox.ac.uk/about/organisation • Nuffield Department of Medicine (NDM) - https://www.ndm.ox.ac.uk • Unit - https://www.well.ox.ac.uk / www.imcm.ox.ac.uk
What we offer	https://hr.admin.ox.ac.uk/staff-benefits • 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

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hr

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The role

This post provides an exciting opportunity to join the newly established multidisciplinary Oxford-GSK Institute of Molecular & Computational Medicine (IMCM) operating within Nuffield Department of Medicine (NDM) in collaboration with Nuffield Department of Clinical Neuroscience (NDCN), Nuffield Department of Population Health (NDPH) and Department of Physiology, Anatomy and Genetics (DPAG). The Institute brings together the very best scientific, clinical, technological and computational expertise from Oxford University and GSK forming a unique industry/academic partnership. The aim of the Institute is to improve tools in, and knowledge from, genetics, genomics, molecular and single cell biology, spatial imaging, machine learning and novel methods of data handling to study the pattern of diseases in new ways. The Institute will develop disease agnostic platforms to change the clinical practise of pathology, helping to identify and validate early potential drug targets, and biomarkers to predict disease progression.

The Institute is built around Fellows and Oxford-GSK project teams located across different departments within the Medical Sciences Division. Projects will initially focus on neurodegeneration and the central nervous system, specifically Alzheimer's disease, Parkinson's disease and amyotrophic lateral sclerosis but it is anticipated the range of activities will expand into other research areas in future.

A highly motivated, ambitious Senior Bioinformatician is required to join the Oxford-GSK IMCM bioinformatics team to direct data analysis projects for the different Oxford-GSK IMCM projects. You will work on various 'omics datasets, including transcriptomic, genomic, proteomic and metabolomic data, as well as imaging and clinical data. You will identify the need for development of new pipelines or optimise existing pipelines, working closely and collaboratively with other members of the bioinformatics team. You will be in regular communication with the Oxford-GSK IMCM project leads and will work collaboratively with the Oxford-GSK IMCM Fellows and other senior researchers in the institute, keeping in mind the Oxford-GSK IMCM's approach and mission. You will work alongside the Oxford-GSK IMCM data managers and cloud engineer to ensure effective use of the shared cloud-based data platform and you will provide a crucial role in optimising and leveraging the potential of cutting-edge techniques.

As the Senior Bioinformatician you will be part of a multi-disciplinary, science driven team delivering bioinformatics excellence to understand the patterns and mechanisms in neurodegenerative disease. You will work to tight and moving deadlines, adopting a nimble approach, communicating progress clearly, and prioritising effectively across the team. This position represents an exciting opportunity to work in a dynamic research environment, driving the delivery of numerous bioinformatics projects in close collaboration with the joint Oxford-GSK research project teams.

Responsibilities

You will:

- Plan, lead and conduct processing and detailed analysis of a variety of ‘omics datasets, including bulk and single cell transcriptomic data, whole-genome and exome DNA sequencing data, proteomic data and metabolomic data across a range of parallel projects.
- Provide expert bioinformatics advice to the IMCM research project teams and identify, define and plan new analyses that will progress the IMCM research projects.
- Keep meticulous, detailed records of your work and commit to performing cloud-based analyses on the IMCM data platform.
- Organise and prioritise your work efficiently and work to the highest standard to meet agreed deadlines.
- Communicate effectively with colleagues at all levels both within Oxford and at GSK to identify needs, risks and develop appropriate solutions, escalating where appropriate.
- Be flexible and responsive to the changing needs of individual projects.
- Explore and implement cutting-edge approaches to analysis of multimodal datasets to keep the Oxford-GSK IMCM at the forefront of the bioinformatics field.
- Work closely with the Technical Lead in Bioinformatics to ensure alignment of bioinformatics approaches and methods across Oxford-GSK IMCM projects, enabling cross-project analysis where appropriate.
- Collaborate with peer scientists from cross-functional teams to analyse and interpret large complex datasets and communicate findings.
- Prepare manuscripts for publication and contribute to written and oral presentations/reports as required.
- Promote the Oxford-GSK IMCM locally and nationally and disseminate research outcomes to advance knowledge in the specialist area.
- Represent the Oxford-GSK IMCM at external meetings/seminars and liaise with sponsors, stakeholders, national agencies, and professional bodies.
- Perform other relevant duties as required to support the group’s activities.
- 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 relevant PhD/DPhil in bioinformatics, computational biology, biostatistics, applied mathematics, or related discipline.
- Significant experience handling and analysing various types of 'omics data types, such as RNA-Seq, whole genome or exome sequencing data, single cell profiling, ChIP-Seq, proteomics, and metabolomics.
- Demonstrable specialist bioinformatics knowledge, skill and experience to develop and oversee large programmes of technical work to a successful conclusion by agreed deadlines.
- Strong interpersonal skills and ability to contribute to a supportive, helpful culture and work very closely with end users.
- Excellent written and verbal communication skills, including the ability to communicate technical concepts to non-technical audiences.
- Extensive experience of programming languages including Python and R.
- Experience of developing and maintaining bioinformatics pipelines and workflows.
- Self-motivated and able to combine strategic thinking with hands-on bioinformatics skills, with a drive for performance and quality improvement.
- Be a role model with a high work ethic, strong professionalism, and the ability to quickly become an effective member of the team.
- Strong publication record commensurate with career stage.
- Interest in learning new areas of biology, building novel quantitative and computational skills and sharing learnings.

Desirable

- Experience working in a cloud environment.
- Previous experience of working on neuroscience projects, such as on Parkinson's disease, Alzheimer's disease, ALS or another neurodegenerative disease.
- Experience working with industry partners.

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

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.