

Summary

Job title	Research Scientist – Statistical genomics and genetic epidemiology
Division	Medical Sciences
Department	Psychiatry
Location	Warneford Hospital
Grade and salary	Grade 7: £36,024-£44,263 per annum
Hours	Full time (consideration would be given to candidates wishing to work part-time on a pro-rata basis – minimum 80% FTE)
Contract type	Fixed-term (funded to 31 January 2025)
Reporting to	Dr Laura Winchester/Professor Alejo Nevado Holgado
Vacancy reference	167993
Additional information	

The role

We are seeking a highly motivated individual to join our team and work on cutting-edge research in the field of genomics. The successful candidate will have the opportunity to work on projects that leverage the latest advancements in statistical modelling to understand and analyse complex genomic data. The post holder will join the Department of Psychiatry as a researcher with responsibility for carrying out research in genetic epidemiology and machine learning in the field of neurodegeneration. This will include applying advanced modelling approaches to large scale proteomic and genomics datasets to develop methods and enable innovative approaches to data interpretation.

The project focuses on the analysis of proteomic data from Parkinson's disease (PD), a progressive degenerative neurological condition which causes motor symptoms (bradykinesia, tremor, rigidity) and non-motor (cognitive decline, depression and pain). You will be employing longitudinal and mixed level models on multi-omic data to better understand disease subtypes and pathology. You will be working on unique, large-scale, deeply phenotyped, longitudinal proteomic datasets in conjunction with other multimodal cohorts including data generated by biobanks, collaborators or in the public domain to understand the complex PD phenotypes.

The post holder will report to Dr Laura Winchester and Associate Professor Alejo Nevado-Holgado, and will work in a dynamic and innovative environment to deliver novel technological methods to clinical challenges. You will be joining a friendly and dynamic interdisciplinary team of clinicians,

bioinformaticians and AI/NN experts. You will be encouraged to interact widely with this group, and with other scientists across the Department of Psychiatry, the Big Data Institute, the Kavli Institute for Nanoscience Discovery and the wider University.

Responsibilities

- Research in the field of statistical genomics and genetic epidemiology
- Design and implement multi-level and longitudinal models for proteomics and clinical data
- Develop pipelines for curating and harmonising large multi-modal datasets including clinical data
- Manage administrative activities and co-ordinate multiple aspects of work to meet deadlines.
- Provide input and innovative ideas for new research projects, actively pursue funding opportunities to support additional initiatives, and cultivate professional growth in research and academia.
- Identify and troubleshoot technical or scientific problems, working collaboratively with team members to overcome issues.
- Stay updated on the latest advancements in the field, share this knowledge with the team, and incorporate relevant findings as needed.
- Act as a representative of the research group at external meetings and seminars, whether in a team or individual capacity, fostering effective networking and knowledge exchange.
- Prepare manuscripts and data for publication
- Contribute to the education, guidance and training of research assistants and students as necessary
- Promote collaborative engagements with various groups within the University of Oxford and the broader scientific community.

Selection criteria

Essential selection criteria

- Hold a Masters in a relevant subject area, for example, genetic epidemiology relating to neurodegeneration or medical sciences or statistics and bioinformatics
- Experience with genomics data and bioinformatics tools
- Strong scientific computing skills for data analysis and coding, such as use of R, STATA or python
- Excellent communication skills, including the ability to write for publication, present research proposals and results, and represent the research group at meetings
- Excellent organisational skills in terms of time management, project reporting and ability to complete the task by the agreed deadline
- Experience of actively collaborating in the development of research articles for publication

Desirable selection criteria

- Have or be close to completion a PhD in a relevant subject area, for example, genetic epidemiology relating to neurodegeneration or medical sciences or statistics and bioinformatics
- Experience working in psychiatry or neuroscience

- Experience of working in a University environment
- Ability to contribute ideas for new research projects

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 to a successful outcome of this assessment.

The hazards or safety-critical duties involved are as follows:

About the University of Oxford

Welcome to the University of Oxford. We aim to lead the world in research and education for the benefit of society both in the UK and globally. Oxford's researchers engage with academic, commercial and cultural partners across the world to stimulate high-quality research and enable innovation through a broad range of social, policy and economic impacts.

We believe our strengths lie both in empowering individuals and teams to address fundamental questions of global significance, while providing all our staff with a welcoming and inclusive workplace that enables everyone to develop and do their best work. Recognising that diversity is our strength, vital for innovation and creativity, we aspire to build a truly diverse community which values and respects every individual's unique contribution.

While we have long traditions of scholarship, we are also forward-looking, creative and cutting-edge. Oxford is one of Europe's most entrepreneurial universities and we rank first in the UK for university spin-outs, and in recent years we have spun out 15-20 new companies every year. We are also recognised as leaders in support for social enterprise.

Join us and you will find a unique, democratic and international community, a great range of staff benefits and access to a vibrant array of cultural activities in the beautiful city of Oxford.

For more information, please visit www.ox.ac.uk/about/organisation.

Department of Psychiatry

The Department of Psychiatry based on the Warneford Hospital site in Oxford has an international reputation for excellence. The Head of Department is Professor Belinda Lennox. The Department has a substantial research programme, with major funding from Medical Research Council (MRC), Wellcome Trust and National Institute for Health Research (NIHR) and provides highly rated medical training in psychiatry. There are approximately 220 staff including 33 principal investigators leading research groups investigating applying a wide range of approaches from translational neuroscience, experimental medicine, epidemiology, clinical trials and health services research to developmental disorders, mood disorders, cognitive disorders and self-harm and suicide. There are strong links with other departments and institutes both within and outside Oxford: these links ensure that we can apply the

best scientific methods to psychiatric and cognitive disorders. The Department has an annual turnover approaching £10 million with more than 130 research grants.

For more information please visit: <http://www.psych.ox.ac.uk>

The Department of Psychiatry holds a silver Athena Swan award to recognise advancement of gender equality: representation, progression and success for all.

Medical Sciences Division

For more information please visit: <https://www.medsci.ox.ac.uk/>

How to apply

Applications are made through our online recruitment portal. Information about how to apply is available on our Jobs website <https://www.jobs.ox.ac.uk/how-to-apply>.

Your application will be judged solely on the basis of how you demonstrate that you meet the selection criteria stated in the job description.

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)

Please upload all documents **as PDF files** with your name and the document type in the filename.

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 at:

vacancies@psych.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.

Benefits of working at the University

Employee benefits

University employees enjoy 38 days' paid holiday, generous pension schemes, travel discounts, and a variety of professional development opportunities. Our range of other employee benefits and discounts also includes free entry to the Botanic Gardens and University colleges, and discounts at University museums. See <https://hr.admin.ox.ac.uk/staff-benefits>

University Club and sports facilities

Membership of the University Club is free for all University staff. The University Club offers social, sporting, and hospitality facilities. Staff can also use the University Sports Centre on Iffley Road at discounted rates, including a fitness centre, powerlifting room, and swimming pool. See www.club.ox.ac.uk and <https://www.sport.ox.ac.uk/>.

Information for staff new to Oxford

If you are relocating to Oxfordshire from overseas or elsewhere in the UK, the University's Welcome Service website includes practical information about settling in the area, including advice on relocation, accommodation, and local schools. See <https://welcome.ox.ac.uk/>

There is also a visa loan scheme to cover the costs of UK visa applications for staff and their dependents. See <https://staffimmigration.admin.ox.ac.uk/visa-loan-scheme>

Family-friendly benefits

With one of the most generous family leave schemes in the Higher Education sector, and a range of flexible working options, Oxford aims to be a family-friendly employer. We also subscribe to the Work+Family Space, a service that provides practical advice and support for employees who have caring responsibilities. The service offers a free telephone advice line, and the ability to book emergency back-up care for children, adult dependents and elderly relatives. See <https://hr.admin.ox.ac.uk/my-family-care>

The University has excellent childcare services, including five University nurseries as well as University-supported places at many other private nurseries.

For full details, including how to apply and the costs, see <https://childcare.admin.ox.ac.uk/>

Disabled staff

We are committed to supporting members of staff with disabilities or long-term health conditions. For further details, including information about how to make contact, in confidence, with the University's Staff Disability Advisor, see <https://edu.admin.ox.ac.uk/disability-support>

Staff networks

The University has a number of staff networks including the Oxford Research Staff Society, BME staff network, LGBT+ staff network and a disabled staff network. You can find more information at <https://edu.admin.ox.ac.uk/networks>

The University of Oxford Newcomers' Club

The University of Oxford Newcomers' Club is an organisation run by volunteers that aims to assist the partners of new staff settle into Oxford, and provides them with an opportunity to meet people and make connections in the local area. See www.newcomers.ox.ac.uk.