

# Job description

Job title	Postdoctoral Researcher in Complex Trait Genetics
Division	Medical Sciences Division
Department	Oxford Population Health (Nuffield Department of Population Health, University of Oxford)
Location	Old Road Campus, Headington, Oxford, OX3 7LF
Grade and salary	Grade 7: £36,024 - £44,263 per annum
Hours	Full time (Part time considered)
Contract type	Fixed-term – 2 years
Vacancy reference	174792



## About Oxford Population Health

Oxford Population Health (the Nuffield Department of Population Health) provides an excellent environment for multi-disciplinary research and teaching and for professional and support staff. We work together to answer some of the most important questions about the causes, prevention and treatment of disease.

The Department has around 900 staff, students and academic visitors working in a number of world-renowned population health research groups, including the Clinical Trial Service Unit and Epidemiological Studies Unit (CTSU), the Cancer Epidemiology Unit (CEU), the National Perinatal Epidemiology Unit (NPEU) and other groups working on public health, health economics, ethics and health record linkage. It is also a key partner in the Oxford University's Big Data Institute.

In the 2021 Research Excellence Framework (REF), 96% of the research submitted to Unit of Assessment 2: Public Health, Health Services and Primary Care, was ranked either 4\* (world-leading in terms of originality, significance and rigour) or 3\* (internationally excellent in terms of originality, significance and rigour). This comprised research from Oxford Population Health and research from the Nuffield Department of Primary Care Health Sciences. We scored particularly well for having an environment that is conducive to producing research of world-leading quality and enabling outstanding impact, in terms of its vitality and sustainability.

In addition to its research activities, the Department is home to the [MSc in Global Health Science and Epidemiology](#), the [MSc in Clinical Trials](#), and a variety of short courses. Students also come to undertake research for [DPhil degrees](#). Teaching is provided for undergraduates reading for Medicine and for public health doctors in specialist training.

For more information please visit the [Oxford Population Health website](#).

## About the Medical Sciences Division

The Medical Sciences Division is an internationally recognised centre of excellence for biomedical and clinical research and teaching, and the largest academic division in the University of Oxford.

World-leading programmes, housed in state-of-the-art facilities, cover the full range of scientific endeavour from the molecule to the population. With our NHS partners we also foster the highest possible standards in patient care.

For more information please visit the [Medical Sciences Division website](#).

## 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 the [Oxford University website](#).

## The role

Reporting to Professor Peter Visscher and working in the Complex Trait Genomics Group (which is jointly run with Professor Naomi Wray), this is an exciting opportunity for a postdoctoral research fellow to engage in research to further their expertise and growing research profile to achieve national and international recognition in their discipline.

The availability of genome-wide SNP array and whole genome sequence data in large biobanks allow the dissection of genetic variation to an unprecedented level of detail. The research fellow will develop and conduct projects to better understand the causes and consequences of human trait variation from analysis of data from large biobanks. Examples of specific research projects are (i) apply analysis methods to estimate and dissect genetic variation from genome sequence data; (ii) studying pleiotropy by estimation of the proportion of segregating DNA sites in the human genome that influence one or more complex traits (iii) prediction of future disease incident cases in biobanks from multi-dimensional genetic and phenotypic data at baseline and (iv) using admixture and family data to estimate between-population mean differences in complex traits.

## Responsibilities

- Contribute to the research program in the Group and the development and implementation of research projects
- Research in the broad field of statistical genomics, including analysis of data generated by biobanks, collaborators or in the public domain
- Prepare research publications and progress reports and participate in regular meetings to discuss project objectives, methodology and outcomes
- Manage own academic research and administrative activities
- Present papers at conferences or public meetings
- Develop ideas for generating research income and promoting the research area
- Represent the research group at external meetings/seminars, either with other members of the group or alone

- To contribute, as required to the wider academic activities of the Nuffield Department of Population Health (including teaching, student mentoring or supervision, and assessment) and to participate in appropriate training and quality assurance processes for such roles

The above list is not exhaustive and the role-holder is required to undertake such duties as may reasonably be requested within the scope of the post. All staff are required to act in a professional, cooperative and flexible manner, in line with the requirements of the post.

## Selection criteria

### Essential

- Hold (or be close to completion of) a PhD/Dphil in a relevant field e.g., statistical genetics, quantitative genetics, epidemiology, bioinformatics, computer science, statistics, econometrics or other relevant areas
- Knowledge or expertise in the principles of genetics and genomics and linear (mixed) model methodology
- Experience in the analysis of genetic and phenotypic data in large biobanks
- High proficiency in the statistical software R or a similar statistical package
- Demonstrated high-level communication and interpersonal skills including the ability to effectively collaborate to ensure research aims are met
- Ability to work independently with excellent problem solving and organisational skills, with high attention to detail
- Ability to manage own academic research and associated activities
- Previous experience of contributing to publications/presentations and ability to develop ideas for new research projects and research income generation

### Desirable

- Knowledge or Expertise in one or more of the following: (i) Quantitative genetics models and theories; (ii) Writing user-friendly software tools; (iii) Analysis of whole genome sequence data in biobanks; (iv) Random effects prediction methods

## 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.

## 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](#).

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 your CV and supporting statement **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 departments.

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

Help and support is available from the [HR Systems Recruitment support webpage](#). If you require any further assistance please [email the Recruitment Support team](#).

To return to the online application at any stage, please go to the [University's recruitment website](#). Please note that you will receive an automated email from our e-recruitment system 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\*\*](#). The University's Policy on Data Protection is available on the [\*\*University's Compliance webpages\*\*](#).

### 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\*\*](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\*\*](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.

## 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.

## 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. There is also a [visa loan scheme](#) to cover the costs of UK visa applications for staff and their dependents.

## 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.

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 the [Childcare Services webpages](#).

## 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 the [Disability Support webpages](#).

## 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 on the [Equality and Diversity at Oxford webpages](#).

## 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.