

Nuffield Department of Medicine

Job title	Research Assistant in CRISPR/Cas9 Cell Based High Throughput Screening (maternity leave cover)
Division	Medical Sciences Division
Department	Nuffield Department of Medicine
Location	Target Discovery Institute, NDM Research Building, Old Road Campus, Headington, Oxford, OX3 7FZ
Grade and salary	Grade 7: £32,817 - £40,322 per annum <i>Whilst the role is a grade 7 (£32,817 - £40,322 p.a.) position, we would be willing to consider candidates with potential but less experience who are seeking a development opportunity, for which an initial appointment would be at grade 6 (£29,167 - £34,804 p.a.) with the responsibilities adjusted accordingly. This would be discussed with applicants at interview/appointment where appropriate.</i>
Hours	Full time
Contract type	Fixed-term maternity leave cover for 12 months.
Reporting to	Daniel Ebner, Head of Cellular Screening Facility
Vacancy reference	143737
Research topic	CRISPR/Cas9 Cell Based High Throughput Screening
Principal Investigator / supervisor	Daniel Ebner
Project team	Cellular Screening Facility
Project web site	http://www.tdi.ox.ac.uk/crispr-pooled-screening

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Job description

Overview of the role

We are seeking a Research Assistant capable of independently managing a research project and will be responsible for all steps of CRISPR/Cas9 screening across multiple pathologies as an integral member of the TDI Cellular Screening Facility. You will be a highly organized and productive member of a growing high throughput screening team responsible for developing and producing several genome wide screens per year. We actively encourage scientists from all research backgrounds, but with the necessary experience to apply.

Responsibilities/duties

Your main responsibility will be to execute all steps of CRISPR/Cas9 screens, from library production to assay development and production, across multiple pathologies in arrayed or pooled formats at the TDI High Throughput Screening Facility.

Your duties will include:

- Independently managing your own research project
- Growing bacterial stocks, maintaining relevant cell lines for CRISPR production, and efficient transfection of CRISPR into various screening cell types.
- You will be responsible for organising and maintaining relevant plasmid libraries, creating, titring, curating lentivirus stocks and creating sub-pools as necessary.
- You will liaise with suppliers of libraries, users of the resource, and with screening facility personnel as well as stay current with developments in the field of CRISPR screening.
- You will develop and produce genome-wide CRISPR/Cas9 screens across multiple pathologies in collaboration with scientists from the University of Oxford.
- You will also liaise and coordinate very closely with the Cell Screening Officer of the TDI who manages all arrayed and pooled based screens.
- You will liaise with the WTCHG regarding NextGen sequencing (NGS).
- Act as a source of information and advice to other members of the group on scientific protocols and experimental techniques
- You will routinely meet with the Principal Investigators and other members of the projects to discuss progress.
- Collaborate in the preparation of scientific reports and journal articles and occasionally present papers and posters
- To participate and support public engagement activities on behalf of the centre, and working with the Centre's Public Engagement and Communications Officer. This is anticipated to be around 2 days per year.

All employees will have to ensure that their work in the laboratory is conducted safely at all times and, in particular, that work is undertaken following the appropriate health and safety policies and procedures for the particular area, without compromise to their own safety or that of others who may be affected.

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Hazard-specific / Safety-critical duties:

This job includes the following hazards or safety-critical activities which will require successful pre-employment health screening through our Occupational Health Service before the successful candidate will be allowed to start work:

- Work with any substance which has any of the following pictograms on their MSDS:



Selection criteria

Essential

- Hold or be close to completion of a PhD or hold a minimum of Master's Degree in molecular/cell biology, biochemistry or a related subject for the under-fill consideration.
- Significant professional experience in a research laboratory.
- Experience with CRISPR/Cas9 editing or screening.
- Experience with culturing and manipulation of cell lines especially lentiviral production, transduction, and transfection.
- High content imaging or microscopy experience with imaging analysis experience.
- In-depth knowledge of molecular biology techniques, especially advanced cloning (e.g. Golden Gate, Gibson assembly) and PCR (e.g. site-directed mutagenesis), as well as biochemical and cell biological techniques (e.g. western blotting, immunofluorescence, qRT-PCR).
- Highly organised, excellent attention to detail and the ability to work flexibly to manage their time and a varied workload under pressure to meet deadlines
- Experience in various tissue culture techniques.
- Ability to manage in an organised manner the day-to-day tasks of experimental research.
- Ability to work independently using their own initiative, and also as part of a team, supporting colleagues where necessary.
- Familiarity with the existing literature and research in the field.
- Good IT skills and experience with Microsoft Office programmes and web searches

Desirable

- Familiarity with next generation sequencing, statistics or bioinformatics
- Experience in high throughput screening and related equipment
- Excellent interpersonal and communication skills



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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. Income from external research contracts in 2016/17 exceeded £564m and we rank first in the UK for university spin-outs, with more than 130 companies created to date. 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.

Medical Sciences

The Medical Sciences Division is an internationally recognized centre of excellence for biomedical and clinical research and teaching. We are 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: www.medsci.ox.ac.uk

Nuffield Department of Clinical Medicine (NDM) ...fostering your career in science

The Nuffield Department of Clinical Medicine (NDM) is one of the largest departments of the University of Oxford and is part of the Medical Sciences Division, with responsibility for a significant part of the teaching of clinical students within the Medical School.

NDM has significant financial turnover and complexity, resulting from its diverse research portfolio, its geographical spread and its close links with NHS funding and strategic teams

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involved in the development and delivery of increasingly integrated clinical research platforms. For more information please visit: <http://www.ndm.ox.ac.uk/home>

The Nuffield Department of Clinical Medicine has been presented with a Departmental Athena SWAN Silver award in recognition of the commitment made to promote gender equality through our organisational and cultural practices and our efforts to improve the working environment for both men and women. For more information please see our Departmental Athena SWAN pages: <https://www.ndm.ox.ac.uk/working-for-ndm/aboutndmatheneswan/>

The NDM Research Building and Target Discovery Institute (TDI)

Situated on the Old Road Campus this new building represents the latest phase in continued development of the Medical Research Campus. This £22M new building allows the development of the Target Discovery Institute and expansion of existing research groups of NDM with research synergies. The building is 5,300 sq m (GIA) laboratory and office space housing some 160 research and support staff.

The NDM Research Building constructed for the Nuffield Department of Medicine includes the Target Discovery Institute (TDI) with many academic partners such as the Department of Cardiovascular Medicine and BHF Centre of Research Excellence (BHF Centre for Cardiovascular Target Discovery), Department of Radiation Oncology and Biology, Ludwig Cancer Institute, Kennedy Institute of Rheumatology, Structural Genomics Consortium and the Department of Chemistry.

TDI research facilities include high-throughput cell-based screening facility, cell-based assay development program, proteomics laboratory, medicinal chemistry and chemical biology programs and containment level three laboratories. There is support space for the scientists including a 90 seat seminar room, advanced IT and AV infrastructure and additional meeting rooms and break out spaces.

Target Discovery Institute (TDI) & British Heart Foundation Centre for Cardiovascular Target Discovery

This is a new initiative (a >£20M program) by the University of Oxford dedicated to the accurate ascertainment and initial validation of drug targets, and is directed by Professor Peter Ratcliffe FRS, Head Nuffield Department of Medicine.

Partners in the Target Discovery Institute include;

- Nuffield Department of Medicine
- Department of Cardiovascular Medicine and BHF Centre of Research Excellence (BHF Centre for Cardiovascular Target Discovery)
- Department of Radiation Oncology and Biology
- Ludwig Cancer Institute
- Kennedy Institute of Rheumatology
- Structural Genomics Consortium
- Department of Chemistry.

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The Target Discovery Institute is based in the Nuffield Department of Medicine Research Building (NDMRB). The components include the following:

- High-throughput cell-based screening facility (managed by Daniel Ebner, making available liquid handling robotics, multimodal plate readers, high-content screening microscopy, core siRNA, shRNA and small molecule libraries)
- Proteomics facility (Dr Benedikt Kessler)
- Chemical Biology
- Medicinal Chemistry (Dr Paul Brennan)
- Medicinal chemistry and chemical biology programs (Prof. Chris Schofield, Dr Angela Russell)

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

How to apply

Before submitting an application, you may find it helpful to read the 'Tips on applying for a job at the University of Oxford' document, at <https://www.ox.ac.uk/about/jobs/research/>

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. Please provide details of two referees and indicate whether we can contact them now.

You will also 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.

All applications must be received by **midday** 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)



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Should you experience any difficulties using the online application system, please email recruitment.support@admin.ox.ac.uk. Further help and support is available from [www.ox.ac.uk/about the university/jobs/support/](http://www.ox.ac.uk/about_the_university/jobs/support/). 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 e-recruitment system to confirm receipt of your application. **Please check your spam/junk mail** if you do not receive this email.

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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: www.admin.ox.ac.uk/councilsec/compliance/gdpr/privacynotices/job/. The University's Policy on Data Protection is available at: www.admin.ox.ac.uk/councilsec/compliance/gdpr/universitypolicyondataprotection/.

The University's policy on retirement

The University operates an Employer Justified Retirement Age (EJRA) for all academic posts and some academic-related posts. The University has adopted an EJRA of 30 September before the 69th birthday for all academic and academic-related staff in posts at **grade 8 and above**. The justification for this is explained at: www.admin.ox.ac.uk/personnel/end/retirement/acrelretire8+/.

For **existing** employees, any employment beyond the retirement age is subject to approval through the procedures: www.admin.ox.ac.uk/personnel/end/retirement/acrelretire8+/.

There is no normal or fixed age at which staff in posts at **grades 1–7** 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.

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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 www.admin.ox.ac.uk/personnel/staffinfo/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 www.sport.ox.ac.uk/oxford-university-sports-facilities.

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 www.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 www.admin.ox.ac.uk/personnel/permits/reimburse&loanscheme/.

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 My Family Care, 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 www.admin.ox.ac.uk/personnel/staffinfo/benefits/family/mfc/.

Childcare

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 www.admin.ox.ac.uk/childcare/.

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 www.admin.ox.ac.uk/eop/disab/staff.

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 www.admin.ox.ac.uk/eop/inpractice/networks/.



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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.
