Job description and selection criteria

Job title | Research Assistant in Cell Based High Throughput Screening
Division | Medical Science Division
Department | Nuffield Department of Medicine
Location | Target Discovery Institute (TDI), NDM Research Building, Headington, Oxford, OX3 7FZ
Grade and salary | Grade 6: £28,098 - £33,518 per annum
Hours | Full time
Contract type | Fixed-term for 1 year in the first instance
Reporting to | Head of Cellular Screening Facility
Vacancy reference | 135502

Research topic | Cellular High Throughput Screening
Principal Investigator / supervisor | Daniel Ebner
Project team | NPSC/PDi
Project web site | http://npsc.ac.uk/pdi
Funding partner | The funding is support is provided by a Public Private Partnership

Introduction
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 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/

**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.

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)
- Cell-based assay development program (Prof. Shoumo Bhattacharya) in the WTCHG.
- Medicinal chemistry and chemical biology programs (Prof. Chris Schofield, Dr Angela Russell)

For more information please visit: [http://www.tdi.ox.ac.uk/home](http://www.tdi.ox.ac.uk/home)

**About the National Phenotypic Screening Centre**

NPSC is a world-class facility for automated, high content, phenotypic screening. The goal of the NPSC is to bring advances in industrial drug screening capabilities to academic investigators. NPSC is a partnership between the Universities of Dundee, Edinburgh and Oxford. The project was established with an £8M infrastructure award from the Scottish Funding Council to the Scottish Universities Life Science Alliance (SULSA). NPSC operates
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as an open centre and aims to collaborate globally to develop the physiologically-relevant assays from biologists who are keen to achieve impact by seeing their best research ideas translated from the lab into the drug discovery pipeline. www.npsc.ac.uk

About Phenotypic Screening

A phenotype is one or more observable features or traits that report changes in a biological system or its reaction its environment. Simply-put, phenotypic screening is the systematic identification of agents (such as small molecules, biological molecules or genetic mutations) that alter a phenotype. Phenotypic changes underlay most diseases, whether this is a cancer cell undergoing uncontrolled cell division, a motor neuron that fails to connect to muscle tissue, or the complex defects seen in the brain of a patient with schizophrenia. Phenotypic screening uses a range of techniques to measure changes in biological systems, the backbone of phenotypic screening relies on exploiting automated, high-content microscopy. High-content screening technologies are used to identify molecules with a particular biological effect in cell-based or tissue-based assays. High content phenotypic profiling allows a systems level approach to drug discovery that embraces the complexity of disease biological. Phenotypic screening approaches show promise in potentially improving success rates of drug development.

Job description

Overview of the role

We are seeking a Research Assistant who will be responsible for all steps of transfer, development and production of cell based high throughput screens with an emphasis on high content imaging across a broad range of diseases including cardiovascular, oncology and neurodegeneration to support the research of the TDI Cellular High Throughput Screening facility. Additionally, you will be responsible for the development and production of high content imaging screens in alignment with TDI focussed research. You will be a highly organized and productive member of a growing high throughput screening team responsible for developing and maintaining strict procedural protocols. We actively encourage scientists from all disease backgrounds, but with the necessary experience to apply.

Responsibilities/duties

Your main responsibility will be to translate screens from bench-top to high throughput platforms cell based and high content imaging in the NPSC/PDi Cell Screening Facility within the TDI High Throughput Screening Facility.

Your duties will include:

- Running, programming and maintaining liquid handling robotic instruments.
- Assist in the transfer, validation and production of high throughput screens.
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- Responsible for developing, validating, producing and analysis high content imaging screens.
- Day-to-day laboratory housekeeping – setting-up and clearing away equipment, re-ordering laboratory supplies and maintaining the laboratory in a clean and orderly fashion.
- Maintaining tissue cultures for assay development and screening.
- Attend Departmental and consortium meetings to advise colleagues on relevant equipment, systems required for new and existing projects. Liaise with collaborators, leading Institutions and external bodies, including commercial companies.
- Present the work of the NPSC to both internal and external audiences through conferences and manuscripts, provide facility tours and provide educational outreach in collaboration with the NDM or NPSC Outreach programs.
- Performing cell based experiments e.g. transfections, westerns, qPCR, as part of potential assay development.
- You will also liaise and coordinate very closely with the Head of Oxford NPSC/PDi (Daniel Ebner) who manages all screens.
- Develop standard operating protocols.
- Other duties appropriate to the grade
- 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.

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:

- Lone working
- Work with any substance which has any of the following pictograms on their MSDS:
Selection criteria

Essential

- Master degree or equivalent in molecular biology, biochemistry or chemistry with an excellent academic track record, or an equivalent combination of training and experience.
- Professional experience in an industrial or academic research laboratory with an emphasis on cellular high throughput screening
- Considerable experience using high throughput liquid handling work stations (i.e. PerkinElmer Janus and LabCye Echo).
- Considerable experience using high content imagers to acquire and analyse high content imaging data (i.e. PerkinElmer Operetta and GE InCell6000).
- Background in cell biology; specifically mammalian cell culture and transfections.
- 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.
- Ability to manage in an organised manner the day-to-day running of a busy research facility.
- Ability to work independently using their own initiative, and also as part of a team, supporting colleagues where necessary.
- Excellent interpersonal and communication skills.
- Fast learner and willing to learn new techniques.
- Familiarity with the existing literature and research in the field.
- Good IT skills and experience with Microsoft Office programmes and web searches.

Desirable

- Experience in additional high throughput readouts including qPCR, FACS and plate readers.
- Experience with siRNA, shRNA, cDNA and CRISPR techniques.
- Knowledge of biochemical compound screening.
- Microscopy experience.

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.
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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.

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).

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/. To return to the online application at any stage, please go to: www.recruit.ox.ac.uk.

Please note that you will be notified of the progress of your application by automatic emails from our e-recruitment system. **Please check your spam/junk mail** regularly to ensure that you receive all emails.

### Important information for candidates

#### Pre-employment screening

Please note that the appointment of the successful candidate will be subject to standard pre-employment screening, as applicable to the post. This will include right-to-work, proof of identity and references. We advise all applicants to read the candidate notes on the University’s pre-employment screening procedures, found at: www.ox.ac.uk/about/jobs/preemploymentscreening/.  

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Athena Swan Silver Award
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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. From 1 October 2017, 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+/

From 1 October 2017, 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

University Club and sports facilities
The University Club provides social, sporting and hospitality facilities. It incorporates a bar, café and sporting facilities, including a gym. 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 international staff (or those relocating from another part of the UK)
If you are relocating to Oxfordshire from overseas, or elsewhere in the UK, the University’s International Staff website includes practical information related to moving to and settling in Oxford such as advice on immigration, relocation, accommodation, or registering with a doctor. See: www.internationalstaffwelcome.admin.ox.ac.uk/

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 to settle into Oxford and to provide them with an opportunity to meet people in the area. See www.newcomers.ox.ac.uk/

Childcare
The University has excellent childcare services with 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.

Family-friendly benefits
The University subscribes to My Family Care (www.admin.ox.ac.uk/personnel/staffinfo/benefits/family/mfc/) and staff are eligible to register for emergency back-up childcare and adultcare services, a 'speak to an expert' phone line and a wide range of guides and webinars through a website called the Work + Family space.

Disabled staff
We are committed to supporting members of staff with disabilities or long-term health conditions. Please visit www.admin.ox.ac.uk/eop/disab/staff for further details including information about how to make contact, in confidence, with the University’s Staff Disability Advisor.
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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/

Other benefits

Staff can enjoy a range of other benefits such as free visitor access to the University’s colleges and the Botanic Gardens as well as a range of discounts. See www.admin.ox.ac.uk/personnel/staffinfo/benefits