

Job description and selection criteria

Job title	Postdoctoral Research Assistant in Cardiac Physiology
Division	Medical Sciences
Department	Department of Pharmacology
Location	Mansfield Road, Oxford OX1 3QT
Grade and salary	Grade 7: £30,738-£37,768 per annum
Hours	Full time
Contract type	Fixed-term for 24 months, funded by the British Heart Foundation
Reporting to	Associate Professor Ming Lei
Vacancy reference	121652
Additional information	This post is available immediately



Committed to equality and valuing diversity

The Department of Pharmacology at Oxford holds a Bronze Athena Swan award. The Athena Swan programme supports good employment practices for women in Science, Engineering and Technology (SET).

Introduction

The University

The University of Oxford is a complex and stimulating organisation, which enjoys an international reputation as a world-class centre of excellence in research and teaching. It employs over 11,000 staff and has a student population of over 22,000.

Our annual income in 2013/14 was £1,174.4m. Oxford is one of Europe's most innovative and entrepreneurial universities: income from external research contracts exceeds £478.3m p.a., and more than 80 spin-off companies have been created.

Oxford is a collegiate university, consisting of the central University and colleges. The central University is composed of academic departments and research centres, administrative departments, libraries and museums. There is a highly devolved operational structure, which is split across four academic divisions, Academic Services and University Collections and University Administrative Services. For further information, please see: www.ox.ac.uk/staff/about_the_university/new_to_the_university/structure_of_university

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

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. It includes 15 clinical departments and 5 non-clinical departments.

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

Department of Pharmacology

The Department of Pharmacology is based in the University's science area in the centre of Oxford. The Department houses around 220 researchers, postgraduate students and support staff, and has excellent facilities. The members of the Department, associated staff and visiting scientists are all engaged in the investigation of basic questions concerning the interaction of chemical substances with biological systems.

Research in the Department is focused on cell signalling, cardiovascular pharmacology, ion channel and molecular pharmacology and neuropharmacology. In many of these areas the Department plays a leading role in the international pharmacological community. The research of the Department has consistently been given a very high ranking in the Government's assessments of research in Universities and was rated first in the UK, within Biological Sciences, in terms of quality (ie greatest volume of 4* work) and volume (the power ranking) in the recent Research Excellence Framework (REF) exercise..

For more information please visit: www.pharm.ox.ac.uk

Overview of the role

We are seeking a postdoctoral scientist to work on a project funded by BHF which is available from Jan 2016 for up to two years.

The focus of the position is to determine the functional and mechanistic role of the p21-activated kinase 1 (Pak1) in cardiac atria health and disease. The timeliness of our research has been emphasised by our recent discovery of the association of Pak1 with some of the most important heart disease conditions including heart hypertrophy and ischemia and arrhythmias.

We are a multidisciplinary team and one of the leading groups in the field of Pak1 research, therefore, we seek a first class candidate with a diverse range of experiences including in vivo/ex vivo cardiac electrophysiology, cellular electrophysiology and calcium imaging and molecular biology and mouse transgenesis. For exceptional candidates who lack some of these skills, training will be available in advanced molecular biology and cardiac physiology, a combination of skills which is highly sought after on the job market.

You must have a PhD or equivalent in a relevant area and the ability to work independently and also effectively in a multidisciplinary group.

Reporting to Associate Professor Ming Lei, the post holder is a member of a research group with responsibility for carrying out research for a discrete area of the project. The post holder provides guidance to less experienced members of the research group, including postdocs, research assistants, technicians, and PhD and project students.

Informal enquiries may be made to Associate Professor Ming Lei at ming.lei@pharm.ox.ac.uk

Responsibilities/duties

You will take responsibility for maintaining and phenotypic analysis of mutant mice using a wealth of techniques that encompass molecular, biochemical and histological approaches. It is also expected that you will perform *in vivo* cardiac functional analyses and various electrophysiological studies. There is a requirement that you hold a Home Office Personal Licence (modules 1-4). Facilities for animal research are first rate and conform to all the appropriate Home Office standards.

You will be expected to:

- Possess excellent molecular biological/electrophysiological skills and have substantial experience in the generation and use of transgenic animal models
- Manage appropriate genotyping of offspring
- Be skilled in various electrophysiological techniques
- Be able (or willing to learn) to perform cardiac surgical procedures on rodent models
- Isolate and culture cardiomyocytes both from neonates and adult animals
- Develop and refine techniques as appropriate
- Analyse and interpret data and make a significant input to the scientific direction of the project
- Actively read the scientific literature relating to the project
- Present work at national and international meetings
- Produce work of suitable quality for publication in peer-reviewed journals
- Take an active part in group meetings, and to make presentations at these when required

- Assist in supervision of PhD, MSc and undergraduate students when requested
- Perform routine laboratory tasks and duties
- Good general record keeping and an ability to work with all levels of staff

Essential knowledge, skills and experience:

- Have or expect to hold a PhD in Cardiac biology or related subjects.
- Have experience working with transgenic mouse models with heart diseases
- Experience in various cardiac in vivo techniques and electrophysiology
- Highly motivated, have an active interest in Cardiac Signalling

Selection criteria

Essential

- Hold a relevant PhD/Dphil, together with relevant experience
- Possess sufficient specialist knowledge in the discipline to work within established research programmes
- Ability to manage own academic research and associated activities
- Previous experience of contributing to publications/presentations
- Ability to contribute ideas for new research projects and research income generation
- Excellent communication skills, including the ability to write for publication, present research proposals and results, and represent the research group at meetings

Desirable

- Experience of independently managing a discrete area of a research project
- Experience of actively collaborating in the development of research articles for publication
- Holding a Home Office Personal Licence (modules 1-4) are prerequisites.

The University's policy on retirement

The University operates an employer justified retirement age for all academic and academic-related posts (any grade above grade 5), for which the retirement date is the 30 September immediately preceding the 68th birthday. The justification for this is explained at:

www.admin.ox.ac.uk/personnel/end/retirement/revisedejra/revaim/

For existing employees any employment beyond the retirement age is subject to approval through the procedures outlined at:

www.admin.ox.ac.uk/personnel/end/retirement/revisedejra/revproc/

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. All applicants must read the candidate notes on the University's pre-employment screening procedures, found at:

www.ox.ac.uk/about/jobs/preemploymentscreening/.

Additional pre-employment screening required for this post will include University and Disclosure Scotland security screening.

Working at the University of Oxford

For further information about working at Oxford, please see:

http://www.ox.ac.uk/about_the_university/jobs/research/

Work-life balance and family-friendly policies at the University of Oxford

The University aims to support all employees with parental or caring responsibilities to ensure that they are able to balance work and family life.

This website (<http://www.admin.ox.ac.uk/eop/parentsandcarersinformation/>) provides a hub of information for all parents and carers, with links to university policies, procedures and guidance, as well as details of the facilities and benefits offered to mothers, fathers and guardians of children. In addition, the website highlights university policies, as well as external sources of guidance. You are advised to read the university policies in full; and to see respective guidance on the Personnel Services website for full details. Views expressed on external websites are not necessarily endorsed by the University of Oxford.

How to apply

If you consider that you meet the selection criteria, click on the **Apply Now** button on the 'Job Details' page and follow the on-screen instructions to register as a user. You will then be required to complete a number of screens with your application details, relating to your skills and experience. When prompted, please provide details of two referees and indicate whether we can contact them at this stage. You will also be required to upload a CV and supporting statement. The supporting statement should describe what you have been doing over at least the last 10 years. This may have been employment, education, or you may have taken time away from these activities in order to raise a family, care for a dependant, or travel for example. Your application will be judged solely on the basis of how you demonstrate that that you meet the selection criteria outlined above and we are happy to consider evidence of transferable skills or experience which you may have gained outside the context of paid employment or education.

Please save all uploaded documents to show your name and the document type.

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 owing to the fact that he or she has 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*
- explain in your covering letter how you meet the selection criteria for the post.*

Should you experience any difficulties using the online application system, please email recruitment.support@admin.ox.ac.uk. To return to the online application at any stage, please click on the following link www.recruit.ox.ac.uk

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