## Job description and selection criteria

<table>
<thead>
<tr>
<th>Job title</th>
<th>Postdoctoral Position in Intellectual Property</th>
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</thead>
<tbody>
<tr>
<td>Division</td>
<td>Medical Sciences</td>
</tr>
<tr>
<td>Department</td>
<td>Nuffield Department of Medicine (NDM)</td>
</tr>
<tr>
<td>Location</td>
<td>Structural Genomics Consortium, Old Road Campus Research Building, Headington, Oxford</td>
</tr>
<tr>
<td>Grade and salary</td>
<td>Grade 7: £31,604 - £38,833 per annum</td>
</tr>
<tr>
<td>Hours</td>
<td>Full time</td>
</tr>
<tr>
<td>Contract type</td>
<td>Fixed-term to 31st December 2019 in the first instance</td>
</tr>
<tr>
<td>Reporting to</td>
<td>Strategic Alliances Manager</td>
</tr>
<tr>
<td>Vacancy reference</td>
<td>131398</td>
</tr>
<tr>
<td>Additional information</td>
<td>The successful applicant will be based in Oxford but will be expected to undertake some travelling to engage with partners.</td>
</tr>
<tr>
<td>Research topic</td>
<td>Affordable Medicines</td>
</tr>
<tr>
<td>Principal Investigator / supervisor</td>
<td>Principal Investigator – Professor Chas Bountra/Dr Wen Hwa Lee</td>
</tr>
<tr>
<td>Project team</td>
<td>Professor Chas Bountra, Dr Wen Hwa Lee, Dr Nick Scott-Ram, Professor Adrian Towse and Dr Jorge Mestre-Ferrandiz</td>
</tr>
<tr>
<td>Funding partner</td>
<td>The funds supporting this research project are provided by the Oxford Martin School</td>
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</table>
The role

Background

Humanity’s need for new medicines continues to grow unabated, yet our traditional systems for discovering new drugs are inefficient, costly and have high failure rates, with less than 1% of efforts reaching the market. Drug development is risky and expensive, and some argue that the competitive nature of early-stage research within academia and industry means efforts are often duplicated and result in little or no dissemination of knowledge.

However, efforts are underway to establish new, ‘open innovation’ models of drug discovery as an alternative to the traditional closed model of research and development (R&D). These can range from limited, peer-to-peer partnerships through to wide-ranging, open source initiatives, and are beginning to involve groups outside academia and industry, such as patient organisations and charities. But the economic and efficiency benefits of such initiatives are as yet unclear, with little data available with which to inform strategic decisions and policy making.

Our Approach

Our interdisciplinary team draws on both academic and industry expertise, from fields including neuroscience, health economics, development pathways, pharmaceutical pricing, intellectual property and strategic partnerships.

We will analyse different R&D models, focusing on both closed and open systems of innovation, to establish answers to the following questions:
• What are the R&D models being practised and considered for the future?
• Who are the stakeholders in drug discovery and what are their roles?
• How are these contributors changing?
• What are the alternative strategies to conventional intellectual property (IP) protection?
• What are the economic benefits of different R&D models, for all stakeholders?
• What are the scientific and societal benefits of these new models?

Following our analysis and exploration of specific case studies, we will develop a range of models illustrating current and potential approaches to R&D in the life sciences sector, considering issues such as drivers of costs, intellectual property, market exclusivity and financial benefits for stakeholders. We will also create a flexible, cost-modelling tool that enables different parties to generate estimates of economic benefits for different stages of drug discovery R&D models.
Responsibilities

In order to drive change in a complex and entrenched ecosystem, proof is needed of the benefits of new drug discovery models. We aim to generate solid, data-backed and non-biased evidence upon which to base recommendations for policy making and with which to stimulate innovation and collaboration.

We are looking to recruit a post-doctoral position that will focus on the intellectual property workstream, and in particular to:

- Survey the different approaches to intellectual property management across existing Open Innovation partnerships.
- Develop case studies of leading therapeutic molecules that have reached the market with multiple indications and where anomalies in the patenting strategy have still led to successful commercialisation.
- Detailed analysis of pre-existing IP legislation and policy across Europe, the United States and selected emerging markets (e.g. China, India, Brazil) for open innovation and closed R&D models.
- Development of different models based on current and potentially new approaches to IP protection and market exclusivity.

Selection criteria

Essential selection criteria

- First degree in medical or life sciences
- PhD or (be near completion) in innovation, industry policy or drug discovery/development
- Experience of intellectual property either through a MSc or equivalent in Management of Intellectual Property would be advantageous
- Strong interest in innovation and drug development
- Ability to engage with industry and work across a range of different stakeholders

Desirable selection criteria

- Experience of intellectual property either through a MSc or equivalent in Management of Intellectual Property would be advantageous

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 2014/15 exceeded £522.9m 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](http://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](http://www.medsci.ox.ac.uk)

**Nuffield Department of Clinical Medicine (NDM)**

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. The Department also has a substantial research programme which requires high quality administrative management.

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.

...fostering your career in science

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

The University of Oxford is a member of the [Athena SWAN Charter](http://www.athenaswan.ac.uk) and holds an institutional Bronze Athena SWAN award. The Nuffield Department of Medicine holds a Silver Athena SWAN award to recognise advancement of gender equality: representation, progression and success for all.

For more information please visit:
The Jenner Institute was founded in November 2005 to develop innovative vaccines against major global diseases. Uniquely it focuses both on diseases of humans and livestock and tests new vaccine approaches in parallel in different species. A major theme is translational research involving the rapid early-stage development and assessment of new vaccines in clinical trials.

For more information please visit: department website http://www.jenner.ac.uk/

Clinical BioManufacturing Facility

The Clinical BioManufacturing Facility, part of the Jenner Institute, is the University of Oxford’s Medicines and Healthcare Products Regulatory Agency (MHRA)-approved GMP (Good Manufacturing Practice) manufacturing facility, where the basic research into vaccines and potential advanced therapies can be translated into the manufacture of novel vaccines classed as Investigational Medicinal Products (IMPs) for use in first in human clinical trials.

The CBF has over 20 years’ experience producing biological IMPs according to GMP for early phase clinical trials. It has a Manufacturer’s Authorisation for Investigational Medicinal Products (MIA IMPs) from the MHRA. The CBF has manufactured almost 20 novel vaccines for first-in-man studies, as vaccines for infectious disease and cancer therapy and has supported over 60 clinical trials.

For more information please visit: http://www.cbf.ox.ac.uk/home

The Jenner Institute - Centre for Clinical Vaccinology and Tropical Medicine (CCVTM), Churchill Hospital, Oxford

Scientists at the Jenner Institute, University of Oxford, have developed new candidate vaccines for malaria, tuberculosis, HIV, influenza and a wide range of other pathogens. Clinical trials are in progress for eight infectious disease areas. See www.jenner.ac.uk. The Jenner Institute is one of the largest university based vaccine institutes globally.

Over the last three years a new cancer vaccine immunotherapy programme, including a multi-site trial in prostate cancer, has been in progress in close collaboration with the departments of oncology and surgery.

For more information please visit: http://www.jenner.ac.uk/ & http://www.tropicalmedicine.ox.ac.uk/home

The Ludwig Institute for Cancer Research (LICR)

Ludwig Cancer Research, Oxford Branch is headed by Professor Xin Lu. Research within the Branch is focused on identifying molecular switches that determine cancer cell heterogeneity, with the aim of sensitising cancer cells to therapy and improving patients’ response to treatment.
To combat tumour heterogeneity, the scientists are researching a wealth of different molecular mechanisms with molecular switches of cell fate being a major theme of their research. One of the main research focuses is the identification of target selectivity of transcription factors in cell growth or death (Professor Xin Lu), stem cells and differentiation (Professor Colin Goding), as well as hypoxia and oxygen sensing (Professor Sir Peter Ratcliffe). This research is complemented by transcriptional networks governing the formation of blood vessels (Dr Sarah De Val), genetic markers that indicate how a cancer cell will respond to therapy (Dr Gareth Bond), epigenetic regulators of cell fate (Dr Skirmantas Kriaucionis), the structural and functional role of BET (Bromo and Extra Terminal) proteins in transcription initiation (Dr Panagis Filippakopoulos), inflammation and cancer (Dr Mads Gyrd-Hansen); and bioinformatics (Dr Benjamin Schuster-Boeckler).

The research groups at Ludwig Cancer Research, University of Oxford, have strong overlapping interests yet maintain diversity, enabling the effective sharing of ideas and technologies. By working together the scientists maximise their research potential.

The Oxford Branch currently employs approximately 120 staff at the Old Road Campus Research Building in Headington, Oxford, and has plans for further expansion over the coming 2-3 years.

For more information please visit: http://www.ludwig.ox.ac.uk/

Structural Genomics Consortium (SGC)

The Structural Genomics Consortium (SGC), a not-for-profit, public-private partnership funds pre-competitive research that contributes to new hypotheses in understanding and treating human disease, and the subsequent identification of new targets for drug discovery. The SGC supports pioneering research at the University of Oxford (UK), University of Toronto (Canada), University of Campinas (Brazil), and University of North Carolina (USA). The reagents and knowledge related to human proteins that the SGC supports are made openly accessible to researchers around the world to accelerate the discovery of new medicines in order to bring potentially life-saving drugs to market faster and at a lower cost.

SGC Oxford, a part of the Nuffield Department of Clinical Medicine, receives funding from public, charitable and private sector organisations such as the European Commission, UK Research Councils, Wellcome Trust, and pharmaceutical companies. Research in SGC Oxford is focused on the production and characterisation of the 3-dimensional structures of soluble and of integral membrane proteins, the discovery of selective chemical probes that can modulate protein function, and the development of target enabling packages that transform genetic hits into starting points for drug discovery. SGC Oxford shares its research outputs through collaborations with researchers worldwide.

For more information please visit: http://www.thesgc.org/scientists/groups/oxford/

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

<table>
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<tr>
<th>Information for priority candidates</th>
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<tr>
<td><strong>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.</strong></td>
</tr>
</tbody>
</table>

*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/.

**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/revisedejra/revaim/.

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

Form 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.
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](http://www.club.ox.ac.uk) and [www.sport.ox.ac.uk/oxford-university-sports-facilities](http://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/](http://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/](http://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](http://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/](http://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](http://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.

**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/](http://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](http://www.admin.ox.ac.uk/personnel/staffinfo/benefits)