Job Title: Research Associate

Department/Division/Faculty: NHLI, Medicine

Campus location: Brompton and Main Campus

Job Family/Level: Academic and Research, Level B

Salary Range: £37,486 to £40,858 per annum

Responsible to: Professor Jane A. Mitchell and Dr Nicholas S. Kirkby

Key Working Relationships (internal): Ms Hime Gashaw

Contract type: Fixed term, 5 years

Research Programme
The research addresses the mechanism(s) by which cyclooxygenase-2 (COX-2) protects the cardiovascular system. COX-2 is an enzyme located within discreet regions including the kidney, brain, gut, lungs, thymus and some areas of vascular endothelium. In one or more of these regions COX-2 activity protects the cardiovascular system from hypertensions, atherosclerosis and thrombosis. We know this because common pain medications, which work by blocking COX-2, increase blood pressure, reduce renal function and elevate an individuals personal risk of getting a heart attack or stroke by as much as 30%. The program of work with use novel genetically modified mouse models and samples from clinical trials to establish the cellular location of the cardio protective COX-2, the mechanisms by which COX-2 works in the cardiovascular system and the interplay between whole body COX-2 and other vascular pathways with a focus on endothelial nitric oxide and the methylarginines.

Purpose of the Post
The post is funded by the British Heart Foundation to investigate the role of COX-2 in the cardiovascular system. Within the programme, the post will primarily be responsible for performing healthy volunteer studies in human subjects, handling clinical trial samples and performing laboratory work to analyse samples using mass spectrometry, immunoassay and tissue bioassays related to cardiovascular function. Other research activity includes project management, supervision of students, technical staff and other trainees. In addition, he/she will be expected to prepare reports, present data and submit publications to refereed journals.

Key Responsibilities

Research Duties
- To take initiatives in the planning of research
- To direct the work of small research teams
- To identify and develop suitable techniques, and apparatus, for the collection and analysis of data
- To conduct data analysis
- To ensure the validity and reliability of data at all times
- To maintain accurate and complete records of all findings
- To write reports for submission to research sponsors
- To present findings to colleagues and at conferences
- To submit publications to refereed journals
- To provide guidance to staff and students
- To attend relevant workshops and conferences as necessary
- To develop contacts and research collaborations within the College and the wider community
- To promote the reputation of the Group, the Department and the College
- To provide guidance to PhD Students
- Contribute to bids for research grants led by Professor Mitchell and Dr Kirkby
**Job Description**

- To conduct and plan own scientific work with appropriate supervision.
- To maintain highly organised and accurate record of experimental Work.
- To actively participate in the research programme of the Group and Unit.
- To publish in high quality journals and to present data at national and international meetings.
- To participate in Group/Unit research meetings and internal seminars.
- To collaborate with other allied scientists within Imperial College and elsewhere in London and abroad, as appropriate.
- To contribute to the smooth running of the Group’s/Unit’s laboratories and, facilities with other scientists, clinicians, technicians and students within the laboratories.
- To assist in the supervision of undergraduate and postgraduate research students and research assistants as required.
- To comply with the College, Division, and Unit safety practices and to attend courses on safety when appropriate.
- Any other duties as may be deemed reasonable by Head of group as well as Head of Division/Department/Section.

**Other Duties**

- To undertake appropriate administration tasks.
- [For members of staff who have responsibility for collecting, inputting and maintaining data] To be responsible for ensuring that data is accurate, up-to-date and complete.
- To attend relevant meetings.
- To undertake any necessary training and/or development.
- Any other duties commensurate with the grade of the post as directed by line manager / supervisor.
# Person Specification

Candidates/post holders will be expected to demonstrate the following:

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<th>Education</th>
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<td>• PhD in Pharmacology or a closely related discipline, or equivalent research, industrial or commercial experience</td>
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<th>Knowledge &amp; Experience</th>
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<td>• Knowledge of cardiovascular biology and pharmacology</td>
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<td>• Knowledge of research methods and statistical procedures</td>
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<td>• Practical experience within a research environment and publication in relevant refereed journals</td>
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<td>• Dealing with specific groups of people, e.g. sponsors, healthy volunteers, clinical research staff, colleagues supporting core activities and core facilities</td>
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<tr>
<td>• Practical hands-on experience performing human healthy volunteer studies including interfacing with volunteers, clinical research staff and sample collection/analysis</td>
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<td>• Practical hands-on experience handling and curating clinical trial samples</td>
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<td>• Experience/knowledge of laboratory analytical techniques including mass spectrometry and immunoassay</td>
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<td>• Experience with tissue bioassays related with cardiovascular function e.g. artery myography or platelet aggregation</td>
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<td>• Computer literate with a good knowledge of different computer programs with experience in data analysis, presentation and statistics</td>
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<td>• Experience with a range of general laboratory analytical techniques such as qPCR, fluorescence imaging, flow cytometry.</td>
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<th>Skills &amp; Abilities</th>
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<td>• Ability to conduct a detailed review of recent literature</td>
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<td>• Ability to develop and apply new concepts</td>
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<td>• Creative approach to problem-solving</td>
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<td>• Excellent verbal communication skills and the ability to deal with a wide range of people</td>
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<td>• Excellent written communication skills and the ability to write clearly and succinctly for publication</td>
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<td>• Ability to direct the work of a small research team and motivate others to produce a high standard of work</td>
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<td>• Ability to organise own work with minimal supervision</td>
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<td>• Ability to prioritise own work in response to deadlines</td>
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<td>• Advanced computer skills, including word-processing, spreadsheets and the Internet</td>
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<th>Personal Attributes</th>
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<td>• Willingness to work as part of a team and to be open-minded and cooperative</td>
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<td>• Flexible attitude towards work</td>
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<td>• Discipline and regard for confidentiality and security at all times</td>
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<td>• Willingness to work out of normal working hours (including weekends) if the requirements of the project demand</td>
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<td>• Willingness to undertake any necessary training for the role</td>
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<td>• Willingness to travel both within the United Kingdom and abroad to conduct research and attend conferences</td>
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Please note that job descriptions cannot be exhaustive and the post-holder may be required to undertake other duties, which are broadly in line with the above key responsibilities.
Job Description

Closing date: 17 April 2019 at 12.00pm. We will not be able to accept any late applications submitted after the 12.00pm deadline.

Imperial College is committed to equality of opportunity and to eliminating discrimination. All employees are expected to follow the 7 Imperial Expectations detailed below:
1) Champion a positive approach to change and opportunity
2) Communicate regularly and effectively within and across teams
3) Consider the thoughts and expectations of others
4) Deliver positive outcomes
5) Encourage inclusive participation and eliminate discrimination
6) Support and develop staff to optimise talent
7) Work in a planned and managed way

Employees are also required to comply with all College policies and regulations paying special attention to:
- Confidentiality
- Conflict of Interest
- Data Protection
- Equal Opportunities
- Financial Regulations
- Health and Safety
- Information Technology
- Smoking
- Private Engagements and Register of Interests
- Confidentiality
- Conflict of Interest
- Data Protection
- Equal Opportunities
- Financial Regulations
- Health and Safety
- Information Technology
- Smoking
- Private Engagements and Register of Interests

They must also undertake specific training and assume responsibility for safety relevant to specific roles, as set out on the College Website Health and Safety Structure and Responsibilities page.

The College is a proud signatory to the San-Francisco Declaration on Research Assessment (DORA), which means that in hiring and promotion decisions, we evaluate applicants on the quality of their work, not the journal impact factor where it is published. For more information, see https://www.imperial.ac.uk/research-and-innovation/about-imperial-research/research-evaluation/

The College believes that the use of animals in research is vital to improve human and animal health and welfare. Animals may only be used in research programmes where their use is shown to be necessary for developing new treatments and making medical advances. Imperial is committed to ensuring that, in cases where this research is deemed essential, all animals in the College’s care are treated with full respect, and that all staff involved with this work show due consideration at every level. http://www.imperial.ac.uk/research-and-innovation/about-imperial-research/research-integrity/animal-research/

Committed to equality and valuing diversity, we are an Athena SWAN Silver Award winner, a Stonewall Diversity Champion, a Disability Confident Employer and work in partnership with GIRES to promote respect for trans people.