

# JOB DESCRIPTION

<b>Vacancy reference:</b>	SRF30568
<b>Post Title:</b>	Postdoctoral Research Assistant in Cardiovascular Research
<b>Grade:</b>	Grade 6
<b>School/Department:</b>	Pharmacy
<b>Reports to:</b>	Alister McNeish
<b>Responsible for:</b>	N/A

## Purpose

This is a Postdoctoral Research role to contribute to and develop the research work on the project "Characterisation of the mechanisms of omega-3 polyunsaturated fatty acids (n-3 PUFA) and novel structural analogues on the activation of  $K_{ATP}$  channels and subsequent regulation of blood pressure". This Post is funded by the British Heart Foundation for 3 years from date of appointment. This project will use animals with specific knock out of  $K_{ATP}$ , electrophysiological, cell biological and isolated arterial techniques to characterise the mechanism of omega-3 fatty acids on the vascular system.

## Main duties and responsibilities

Research:

- Undertake research under the supervision of the Principle Investigator using electrophysiological, cellular biological and isolated arterial physiology techniques.
- The post holder may also be asked to perform a small number of *in vivo* experiments
- Contribute to the development of research proposals and projects
- Contribute to writing proposals for research grants
- Carry out independent research and contribute to supervision of the work of research assistants
- Contribute to the writing of papers for publication in leading academic journals and other relevant media
- Disseminate research findings and establish a national to international reputation through participation in relevant conferences, exhibitions etc.
- Implement research methodologies that add to knowledge and understanding appropriate to the project.
- Collaborate with colleagues within the University in the development of original research
- Provide specialist advice to other staff and students within the University
- Use initiative and creativity to synthesise, analyse and interpret research data.

Enterprise & Outreach:

- Carry out consulting or specialist activities under the supervision of a project leader
- Liaise with industry partners and clients external to the University
- Attend relevant seminars, conferences, exhibitions and other events.

## Supervision received

The post holder will primarily report to Dr Alister McNeish. Additional supervision for the electrophysiology component of the programme will be provided by Dr Francesco Tamagnini with further

guidance from Dr Alister McNeish and Prof Andrew Tinker. Dr Graeme Cottrell will provide additional supervision on the molecular biology techniques. Professor Andrew Tinker will provide additional supervision for work conducted at Queen Mary University of London.

### **Supervision given**

The candidate will be expected to contribute to supervision of undergraduate and post graduate students in the laboratories of Dr McNeish.

### **Contact**

Dr Alister McNeish (PI) School of Pharmacy, University of Reading [a.mcneish@reading.ac.uk](mailto:a.mcneish@reading.ac.uk)

Dr Graeme Cottrell (Co-I) School of pharmacy, University of Reading [g.s.cottrell@reading.ac.uk](mailto:g.s.cottrell@reading.ac.uk)

Dr Francesco Tamagnini (Co-I) School of Pharmacy, University of Reading [f.tamagnini@reading.ac.uk](mailto:f.tamagnini@reading.ac.uk)

Professor Andrew Tinker (Co-I) William Harvey Institute, Queen Mary University London  
[a.tinker@qmul.ac.uk](mailto:a.tinker@qmul.ac.uk)

The candidate will be in frequent contact with colleagues at the William Harvey Institute at Queen Mary University of London – where they will also perform a small number of experiments.

### **Terms and conditions**

This is a full time post but some occasional weekend and/or evening working may be necessary depending on the on-going experiments. Overtime is not payable.

This document outlines the duties required for the time being of the post to indicate the level of responsibility. It is not a comprehensive or exhaustive list and the line manager may vary duties from time to time which do not change the general character of the job or the level of responsibility entailed.

**Date assessed: 17/09/19**

# PERSON SPECIFICATION

Job Title	School/Department
Postdoctoral Research Assistant	SCFP/Pharmacy

Criteria	Essential	Desirable
<b>Skills Required</b>	<ul style="list-style-type: none"> <li>• Demonstrable laboratory experience in relevant environment and the ability to keep meticulous laboratory notes</li> <li>• Excellent computer skills</li> <li>• Excellent analytical and problem-solving skills</li> <li>• Ability to communicate effectively, both orally and in writing</li> <li>• Ability to work to deadlines</li> </ul>	<ul style="list-style-type: none"> <li>• Patch Clamp Electrophysiology</li> <li>• Experience with cell culture particularly primary cell culture</li> <li>• Myography/isolated tissue work</li> <li>• Confocal microscopy</li> </ul>
<b>Attainment</b>	<ul style="list-style-type: none"> <li>• PhD (or soon to obtain PhD) in Pharmacology, Biochemistry or other relevant Biomedical Life Sciences</li> <li>• A good honours degree in relevant subject</li> <li>• Appropriate publication record for career level</li> </ul>	<ul style="list-style-type: none"> <li>• Presentations at international conferences</li> <li>• Publication in peer reviewed journals especially as first or senior author</li> </ul>
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>• Knowledge of areas important to project e.g. Electrophysiology/ ion channel function <b>OR</b> cellular and molecular Biology</li> </ul>	<ul style="list-style-type: none"> <li>• Cardiovascular biology</li> <li>• Fatty acid mediated signalling</li> <li>• Specific knowledge of K<sub>ATP</sub> channel function</li> <li>• Intracellular signalling</li> <li>• Pharmacology</li> </ul>
<b>Relevant Experience</b>	<ul style="list-style-type: none"> <li>• Laboratory experience in a relevant research environment</li> </ul>	<ul style="list-style-type: none"> <li>• Cell culture and cell transfection</li> <li>• Western blotting and RT-PCR</li> <li>• Electrophysiological techniques particularly patch clamp</li> <li>• Myography</li> <li>• Experience of public speaking at events/exhibitions etc.</li> </ul>
<b>Disposition</b>	<ul style="list-style-type: none"> <li>• Good presentation and Writing skills</li> <li>• Ability to work independently and as part of a team</li> </ul>	<ul style="list-style-type: none"> <li>• Passion for cardiovascular research</li> <li>• Able to independently plan experiments</li> </ul>

<b>Other</b>	<ul style="list-style-type: none"><li>• Must be prepared to occasionally work at the William Harvey institute at Queen Mary University of London</li><li>• Desire to learn new biological techniques</li></ul>	

Completed by: Alister McNeish	Date: 17/09/19
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