

Ref: E&PS-(Provided by HR)

THE UNIVERSITY OF MANCHESTER
PARTICULARS OF APPOINTMENT
FACULTY OF BIOLOGY MEDICINE AND HEALTH
Research Associate

- 1 The University invites applications for the above post which is tenable 36 months
- 2 Salary will be £37,694 to £46,049 per annum (Grade 6) according to relevant experience.
- 3 Informal inquiries may be made to Prof Adam Greenstein. Email: adam.greenstein@manchester.ac.uk
- 4 Applications should be made online. If you are unable to apply online, please request an application form by emailing People.Recruitment@manchester.ac.uk quoting the reference number or by calling 0161 306 4059.
- 5 The University of Manchester values a diverse workforce and welcomes applications from all sections of the community.

Job title: Research Associate
Salary: Grade 6
Start/duration: September/October 2026 (36-month post with possibility of two year extension)
Probation period: 9 months
Based at: The University of Manchester
Responsible to: **Prof Adam Greenstein**
Professor of Medicine (adam.greenstein@manchester.ac.uk)

BACKGROUND

We are seeking a motivated and collaborative individual to join our team as a postdoctoral research associate. This role offers an exciting opportunity to contribute to the newly established NaVigate programme to develop treatment options for Alzheimer's Disease and other small vessel diseases of the brain. The position will be initially available for 3 years, with the possibility of extending up to 5 years. The research will be carried out in the Microvascular@Manchester group (microvascularmanchester.com) under the guidance of Professor Adam Greenstein and Dr Harry Pritchard. The post will be based within the Division of Cardiovascular Sciences at the University of Manchester and the Geoffrey Jefferson Brain Research Centre.

Cardiovascular research and innovation at Manchester

The postholder will join a dynamic and multidisciplinary research environment, exemplified by

- Our [British Heart Foundation Centre of Research Excellence](#)
- Current major personal awards and grant funding from the British Heart Foundation, NIHR, Stroke Association, MRC, Leducq Foundation, Department of Health, BBSRC, Kidney Research UK, Cancer Research UK.
- [NIHR Manchester BRC](#) including themes in Integrative Cardiovascular research, Living With and Beyond Cancer, and Rare Diseases
- Highly successful and prestigious [BHF 4-year PhD programme](#) and recently awarded [BHF multidisciplinary PhD programme](#)
- An established Masters programme in Cardiovascular Health and Disease
- The BHF Manchester Centre for Heart and Lung Magnetic Resonance
- Flourishing NIHR Academic Clinical Fellowship and Academic Clinical Lectureship programmes

At the centre of cardiovascular research conducted in Manchester is the [Division of Cardiovascular Sciences](#), which comprises clinicians and discovery scientists with national and international reputations in their respective fields. Together we work to translate our understanding of the cellular, molecular and genetic processes underlying cardiovascular disease into improved clinical treatments and patient care. Along with colleagues throughout the Faculties of Biology, Medicine and Health; Science and Engineering; and Humanities we are conducting [innovative, integrative and interdisciplinary research](#).

Our key drivers are

- To conduct research to advance our understanding of cardiovascular health and disease, to transform the lives of patients with heart and circulatory disease.
- To provide the highest quality research training and teaching for postgraduate and undergraduate students, to develop the next generation of discovery and clinical scientists and equip them with the skills to conduct integrative research.

Our discovery science research labs are based on the main university campus, and are known as the Biomedical Corridor, which comprises the Michael Smith Buildings, Core Technology Facility (CTF), and AV Hill. This means you will be immersed in a thriving environment consisting of contiguous, flexible lab space, state-of-the-art equipment, conferencing facilities and dedicated write-up areas. We have world-class, state-of-the-art [core facilities](#) for research, innovation and technology development. These technology platforms allow interrogation of biology and disease from molecular interactions to whole organisms. The breadth and quality of technical applications available in Manchester is central to our success.

Overall Purpose of the Job

The research follows on from the recent work from the Microvascular@Manchester group into the pathways underlying the reduction in cerebral blood flow in Alzheimer's Disease (for example: <https://pubmed.ncbi.nlm.nih.gov/35727988/>). The appointed person will work with cerebral arteries from mice, to discover the mechanisms by which amyloid beta and elevated blood pressure contract vascular smooth muscle cells. The goal of the project is to trial novel compounds to limit pial artery vasoconstriction, thereby increasing cerebral blood flow and maintaining cognitive function. This research will utilise electrophysiological techniques, specifically patch clamp approaches to assess ion channel function in freshly isolated cerebral artery cells (principally vascular smooth muscle cell but also endothelial cell). As well as leading a project, the successful post-doctoral researcher will also be given fantastic opportunities to collaborate on other projects within the lab and/or within The Manchester British Heart Foundation Centre of Research Excellence.

Key Responsibilities, Accountabilities or Duties

Main responsibilities

- To take initiative in the planning of research.
- To identify, develop and maintain suitable electrophysiology techniques and apparatus for the collection and analysis of data.
- Construction and maintenance of patch clamp electrophysiology rigs
- To undertake experiments in a safe and successful manner, generating meaningful 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 prepare material for presentation in oral and poster formats.
- To present findings to colleagues and at conferences.
- To draft publications and prepare them for submission to refereed journals.
- To provide guidance to staff and students.
- To undertake instruction of PhD students as agreed, supervising practical work and advising students on techniques and data analysis.
- To take responsibility for organising resources and effective decision making in support of research.
- To attend relevant workshops and conferences as necessary.
- To be an active team-member and set positive examples by showing a commitment to achieving results, encouraging and supporting junior members of the team and raising suggestions for continuous improvement.
- To work alongside the PI and other colleagues in a collegiate manner and build rapport within the team.
- To promote the reputation of the Microvascular@Manchester laboratory, GJBRC, Faculty and wider University.

Other duties

- To undertake appropriate administration tasks.
- To attend and partake in relevant meetings.
- To undertake any necessary training and/or development.
- Actively read the scientific literature relating to (and around) the project.
- To maintain safe workplace practice and procedures in accordance with the requirements of Health and Safety legislation.
- To maintain an up-to-date knowledge of relevant statutory Health and Safety legislation and recommendations and attend safety training as required.
- Any other duties commensurate with the grade of the post as directed by PI.

PERSON SPECIFICATION

Essential

- Have, or be about to obtain, a PhD (or equivalent) in biophysics and membrane biology (or similar)
- Extensive and up-to-date understanding of the ion channel biophysics
- Hands-on experience in native (freshly isolated) single cell patch clamp electrophysiology with competence in hardware and software assembly, maintenance and data analysis
- Experience with animal models
- Strong publication record
- Excellent communication and interpersonal skills
- Excellent time management and organisational skills
- Ability to work independently and as part of a team
- Ability to present in both written and oral publications
- Ability to meet deadlines
- The ability to evaluate complex data
- Ability to liaise confidently and effectively with a range of individuals
- Flexible approach to dealing with research problems as they arise
- Willingness to learn and develop
- Ability to assess and organise resources
- Good written and spoken English.

Desirable

- Experience and understanding of cardiovascular physiology, preferably in the field of small artery biology.
- Cardiovascular, particularly microvascular, patch clamp expertise.
- Flexible approach to dealing with research problems as they arise