

Research Associate in Hers Group

1 JOB DESCRIPTION

Faculty / School or Division: Faculty of Health and Life Sciences, Bristol Medical School

Faculty/School or Division Address: Biomedical Sciences Building, University Walk, Bristol bs8 1TD

Job Family:	Research & Teaching		
Grade/Pathway:	I, pathway 2	Salary range:	£40,704 - £54,641 per annum
Hours of work:	35 hours per week	Contract type:	Open-ended (with fixed funding until 31/08/2028)
Work pattern:	Full time/1 FTE	Vacancy Reference Number: ACAD108750	

1.1 Main Job Purpose

This collaborative project with the Hers Group, funded by an external industrial partner, will investigate the effects of BTK degradation on human platelet signalling, function, and thrombosis. The PDRA will compare the ability of a range of BTK degraders, alongside conventional BTK kinase inhibitors, and assess the resulting functional and signalling consequences. The study will provide comparative insight into BTK degradation versus kinase inhibition and its potential impact on platelet function and thrombosis.

1.2 Main Statement of Responsibilities

Research Responsibilities

The PDRA will:

- Have the ability to work towards set deadlines to generate experimental data
- Undertake research to deliver results towards achieving the project's research objectives
- Work with the principal investigator and external partner to design, plan and orchestrate their research project
- Work on optimisation of experimental conditions for PROTAC-mediated protein degradation and function of human platelets
- Contribute to research direction within the overall scope of the project's objective
- Keep detailed and regular progression reports and share these with supervisors and external partner

- Dose mice and collect tissue samples for cell isolation
- Write up work for presentation and publication in a timely manner
- Lead and manage own workload, research and administrative activities

Liaison and networking

- Liaise with colleagues, students and partner
- Build internal and external contacts and participate in networks for the exchange of information and to form relationships for future collaboration
- Attend and present at national and international conferences

Planning and organisation

- Plan and manage own experiments in an efficient manner, coordinating with other group members
- Communicate effectively and organise regular meetings with external partner
- Ensure that consumables for planned experiments are available/ordered in time
- Meticulously record experimental planning and results using programs such as OneNote, Excel and Graphpad Prism
- Managing own time effectively to maximise progress and ensure goals are achieved
- Contribute to communal laboratory management tasks (ordering, maintaining stocks and equipment) and ensure lab area is left tidy and clean at the end of the day
- Present and summarise findings in coherent manner

Administration Responsibilities

- Write regular progression reports, and upon supervisor approval, share these with the industrial partner.
- Organising and plan regular meetings with the partner.

Teaching Responsibilities

As this role is a Pathway 2 (Research) role, there are no formally specified teaching duties required of the role-holder. However, other commitments permitting, the role-holder may be given development opportunities to undertake activities such as teaching on Masters programmes within the Bristol Medical School or School of Psychology and Neuroscience. Further duties may involve supporting the training and supervision of PhD students, MSci students and final year project students within the Bristol Platelet Group.

Other

- Maintain awareness of current and emerging technologies including experimental techniques and analysis tools, by tracking the relevant scientific literature and attending scientific conferences
- May be asked to organise and lead team meetings, lab meetings and/or literature review meetings
- Undertake continual personal development by attending relevant courses and autonomous learning
- Take advantage of the excellent opportunities this post provides to develop research integrity, written, teaching and organisational skills, an ideal training ground for an early career researcher in both academia and industry.

1.3 Relationships

Line manager: Professor Ingeborg Hers

- The PDRA will be accountable to Professor Ingeborg Hers in the Bristol Medical School.

1.4 Job Hazards/Safety Critical Duties (Pre-employment health screening)

The following duties are an intrinsic part of the role and any offer of employment will be conditional upon satisfactory health screening by the University Occupational Health Service:

Biological hazards including:

- Work involving handling cultures of human pathogens or material that does or may contain such pathogens e.g. human or animal tissue
- Work with organisms deliberately infected with human pathogens or that are highly likely to be naturally infected with zoonotic pathogens
- Work with genetically modified organisms, microorganisms or cells under class 2 or class 3 activities on the basis of the hazard to *human health*.
- Work involving potential exposure to recognised allergens and athmagens e.g. through work with laboratory animals or the shared use of a laboratory where such work takes place (also see chemical sensitisers).
- Carrying out exposure prone procedures which may increase the likelihood of exposure to blood borne viruses e.g. working in NHS clinical areas with direct patient contact.

Chemical hazards including:

- Exposure to possible skin and respiratory irritants including those classified as:
 - Skin Corrosion Category 1A, 1B or 1C
 - Skin Irritation Category 2
 - Chemicals assigned the Hazard Phrases:
 - H314 Causes severe skin burns
 - H315 Causes skin irritation
 - H316 may cause mild skin irritation
 - H335 May cause respiratory irritation
 - Working with sensitising chemicals including those classified as:
 - Category 1, 1A and 1B skin sensitisers
 - Category 1, 1A and 1B respiratory sensitisers
 - Chemicals assigned the Hazard phrases:
 - H317 May cause allergic skin reaction
 - H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
 - Cytotoxic substances
 - epoxy resins
 - Formaldehyde
 - Glutaraldehyde
 - Regular use of latex or nitrile gloves.
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2 PERSON SPECIFICATION

2.1 Relevant Experience, Skills and Knowledge

Essential

- Excellent problem-solving abilities and ability to get experiments to work
- Experience and drive to set up new technical approaches
- Experience in functional evaluation of drugs on biological systems
- Experience in FACS analysis
- Experience in western blotting
- Experience in Confocal Microscopy
- Experience in cell culture/cell isolation/cell handling
- Plan and organise their own workload effectively
- Proven ability and strong drive to write and publish scientific papers
- Excellent ability to work in a team environment
- Experience using statistical data analysis and visualization programs such as R, Prism etc.

Desirable

- Experience in platelet biology and platelet functional assays
- Experience in Proteomic analysis
- Experience in application of PROTACs in biological systems
- Understanding of buffer conditions and aspects contributing to biological function
- Experience in administering substances to mice and collecting tissue samples for cell isolation

2.2 Relevant Qualifications

Essential

- A PhD in a relevant science discipline or near completion, or equivalent research experience in an academic, industrial or clinical setting equivalent to a PhD

Desirable

- PhD in platelet signalling and function
- BSc in Pharmacology, Biochemistry or Biomedical Sciences

Communication and Interpersonal Skills

Essential

- Excellent written and oral communication skills
- Ability to establish and foster teamwork
- The ability to present work to other researchers in a clear and concise manner.
- The ability to contribute to the laboratory environment supporting researchers at all stages of their careers.
- The successful candidate will be asked to submit regular written reports of their experimental results as required for the information of the supervisor and partner.

2.3 Additional Criteria

Essential

- Excellent time management skills, with an ability to prioritise a heavy workload and deliver to time and specification
- A desire to learn and to apply that learning
- Conscientious team member
- Will continually update knowledge in relevant specialist areas and engage in continuous professional development

Desirable

- Academic record: Published work written by the applicant in peer-reviewed journals

3 CAREER PATHWAY AND OTHER RELEVANT INFORMATION

3.1 Career Pathways

All members of academic staff have a clear career pathway involving a series of levels with distinct role profiles, each with its unique requirements. Each profile sets out what is expected of an academic at the particular level. The role profiles also set out a collection of competencies expected for each level. Progression or promotion to the next level will occur after these competencies have been attained and where a role at the higher level is available.

The academic pathways are as follows:

Career Pathway One - academic roles that combine teaching, research and administrative duties.

Career Pathway Two - academic roles focusing on research and associated administrative duties.

Career Pathway Three – academic roles focusing on teaching and associated administrative pathways

This post is located on Pathway Two. Role Summaries setting out what is expected of an academic at each particular profile level on pathway two can be found below. Please note that an appointment may be made at any level of the pathway.

A schematic diagram of the career pathways can be found at <http://www.bristol.ac.uk/hr/grading/academic/>.

For Pathway Two roles progression to the next level will only occur where a role has been identified as being eligible for progression, having reached the relevant point on the salary scale and after the relevant competencies have been attained. A progressable role is a role at Level b or Level c that has been determined as being eligible for progression by the Head of Department, based on departmental needs, priorities and funds. Individuals in progressable roles at Level b or Level c are expected to develop their skills, knowledge and experience in order to ultimately progress to Level c or Level d, as applicable. A non-progressable role is one either at Level a (which are not subject to formal progression arrangements, although there may be opportunities to develop into a Level b role, based on departmental needs, priorities and funds), or at Level b or c for which the Head of Department has identified an ongoing need at that particular level. Movement to Level e will be by promotion only.

3.1.1 Role Summaries

Research Associate (Level a)

Role holders at this level are concerned with *assisting* an individual research leader or team to conduct a particular study (or group of studies). They will generally be involved in data generation and/or collection using standard and well-defined methods developed by others. They will be working under close supervision by, and direction from, a more senior researcher, who will be ultimately responsible for the project. This may be the entry level for some staff who are expected to train and/or develop to take on more senior researcher roles. Role holders will be provided with academic and pastoral support within the department (including counselling on realistic career opportunities) and training will be available designed to develop their competences and to prepare them to take on more responsibilities associated with a higher grade.

Senior Research Associate (Level b)

Role holders at this level will be experienced and professional researchers (or have considerable professional experience) and will be specialists in a particular area or methodology, drawing upon knowledge gained from postgraduate research and/or working within a Level a role. They will be *associated* with a particular project (or projects) and will contribute ideas, and/or enhancement of techniques or methodologies. They will be expected to do some writing for dissemination outside the Department. They will still be working under supervision, but will be expected to take significant initiatives in their work and consult with the Principal Investigator over the details of the project. They may, where practical, contribute to the department's teaching, through supervision of projects, overseeing practical classes, or taking small group classes. They will be provided with academic and pastoral support within the department and training will be available designed to develop their competences (including counselling on realistic career opportunities) and prepare them to take on more responsibilities associated with a higher grade.

Research Fellow (Level c)

Role holders at this level will have substantial experience of research (normally not less than six years). They will initiate and take responsibility for some research projects and may be Principal Investigators or, where a Research Council does not permit this, act as though they were Principal Investigators. They will be involved in administration relevant to their projects (e.g. helping to prepare bids for research funding), managing other researchers and monitoring research budgets. They will be expected to be undertaking research individually and/or collectively and to be advancing the state of knowledge and understanding within their particular area of expertise. They will be publishing regularly in high quality outlets. They are likely to provide some teaching support for the department (consonant with the terms of their funding). They will be expected to be establishing a growing reputation within their particular research field and academic discipline and to be developing and demonstrating intellectual independence.

Senior Research Fellow (Level d)

Role holders at this level will have extensive experience in research and research management. They will normally be Principal Investigators, leading collaborative research bids and research teams, or driving forward innovative research themselves. They will be involved in scholastic projects (e.g. editing journals and academic books), and be making a significant leadership and/or management contribution within their department or the wider university, to be participating in national/international academic networks and conferences. They may be transferring their knowledge through some teaching and/or supervision to undergraduate or graduate students (consonant with the terms of their funding). Role holders at this level will be independent researchers and will have an established national and growing international reputation within their academic discipline generally and research field in particular.

Professorial Research Fellow (Level e)

Role holders at this level will have very extensive experience of research leadership and related management/administration. They will enjoy a wide recognition for their expertise within the academic community internationally (as evidenced by conference invitations, journal editorships, office holding in specialist groupings, associations with appropriate Research Councils etc.). They will have made recognised and significant contributions to the developing knowledge and understanding of their research area. They will already have responsibilities for the creation, initiation, development and overall management of significant research programmes. They will 'profess' their discipline within the Department, as appropriate and consonant with the terms of their funding. They may also carry significant leadership roles within the Faculty or University.

3.2 Additional Statistical Information.

N/A

3.3 Relevant Physical and Environmental Information

The PDRA will be based in the laboratory of Professor Ingeborg Hers in the Bristol Platelet Group. The Hers lab is based in the Biomedical Sciences Building (University Walk) in the Bristol Medical School (Faculty of Health and Life Sciences). This building also houses the Wolfson Bioimaging Facility (<http://www.bristol.ac.uk/wolfson-bioimaging/>), Flow Cytometry Facility (http://www.bristol.ac.uk/brissynbio/equipment/flow_cytometry/), and Proteomic Facility (<https://www.bristol.ac.uk/life-sciences/research/facilities/proteomics/>).

3.4 Key Contacts

Professor Ingeborg Hers (i.hers@bris.ac.uk): for further information