

Candidate Information

Position:	Research Fellow
School/Department:	School of Medicine, Dentistry and Biomedical Sciences
Reference:	25/112509
Closing Date:	Monday 19 May 2025
Salary:	£39,922 - £47,631 annum.
Anticipated Interview Date:	Thursday 29 May 2025
Duration:	36 months or until 30 June 2028, whichever is soonest

JOB PURPOSE:

We are looking for an ambitious, motivated post-doctoral scientist to contribute to a cutting-edge research program investigating a novel genetic risk factor for human heart failure. This role offers the opportunity to work at the forefront of translational cardiovascular research, combining human genetic discoveries with experiments conducted in state-of-the-art cellular and mouse models.

The successful candidate will join a collaborative, multidisciplinary team of clinicians and translational scientists (Watson/Lockhart/Grieve/Margariti) as part of a British Heart Foundation-funded project. We seek applicants with prior experience in murine phenotyping who are proactive, team-oriented, and eager to apply diverse experimental approaches to advance our understanding of cardiac health. Strong interpersonal skills and a passion for collaborative research are essential.

This position is ideal for a scientist excited by cross-disciplinary approaches and driven to make a meaningful impact in cardiovascular research.

Applications are invited from highly motivated, efficient and organised individuals with a strong commitment to research and collaborative science. The successful candidate will have a strong background in in vivo murine phenotyping and will be seeking to lead an ambitious cutting-edge research project in a well-supported environment.

MAJOR DUTIES:

- 1. Conceive experimental strategies to achieve high level project aims in discussion with other members of the team.
- 2. Oversee management of a transgenic mouse colony, including genotyping, with assistance from facility animal technicians.
- 3. Plan, conduct and analyse cardiac phenotyping of a transgenic mouse subject to either an agonist induced hypertension or diabetic model of heart failure.
- 4. Refine and optimise a gene-editing pipeline for generation of inducible pluripotent stem cells modelling human mutations associated with heart failure.
- 5. Maintain, differentiate to cardiovascular cells and phenotype edited iPSC lines.
- 6. Maintain up-to-date knowledge of the field of interest at the cutting edge and communicate same to the group.
- 7. Present regular progress reports on research to members of the research group, other groups within the University and to external audiences nationally and internationally to disseminate and publicise research findings.
- 8. Prepare, in consultation with co-authors, material for publication in national and international journals and presentations at international conferences.
- 9. Assist grant holder in the preparation of funding proposals and applications as well as project progress reports to external bodies.
- 10. Prepare competitive applications for own funding such as travel grants, project grants and fellowship applications.

- 11. Carry out routine administrative tasks associated with the research projects/group to ensure that projects are completed on time and within budget and that the group functions efficiently. These might include organisation of project/group meetings and documentation, financial control, stock management/procurement, risk assessment of research activities and development of SOPs. Carry out routine administrative tasks associated with the day-to-day running of the research group in a communal lab setting.
- 12. Carry out school/undergraduate/post-graduate student and visiting researcher training and supervision, demonstrating, tutoring or lecturing duties within the post holder's area of expertise and under the guidance of a member of academic staff.
- 13. Participate in, and in some cases lead, outreach activities on behalf of the group.
- 14. Contribute to communal activities of the Institute/University e.g. sustainability initiatives.
- 15. Participate in local research-related activities such as journal clubs, training sessions, seminar series etc.
- 16. Assist in assessment of research communications and data, particularly within the group.
- 17. Additional research and/or laboratory related duties including outreach activities, within the general range of the post and competence of post holder.

ESSENTIAL CRITERIA:

- 1. Have or be about to receive* (laboratory work complete) a PhD in molecular biology, cell biology, pharmacology or a related area of biomedicine. (*must be obtained within 3 months of commencement of employment).
- 2. Substantial relevant recent experience in in vivo murine phenotyping.
- 3. Extensive, recent, hands-on experience of using at least 3 standard molecular biology techniques (such as, but not limited to Western blotting, RealTime PCR, histopathology etc) to answer biological questions in cell and mouse models.
- 4. Experience teaching/supervising /mentoring postgraduate/ undergraduate/school students and visiting researchers in the laboratory.
- 5. Methodical approach to project management and meticulous in regards to experimental procedures and record keeping.
- 6. Highly motivated, efficient, organised and show a commitment to, and interest in, research topic.
- 7. Competent in maintaining knowledge of cutting-edge of field of expertise.
- 8. Competent in delivering effective oral and poster presentations.
- 9. Competent in communicating stipulated research skills essential to the post.
- 10. Strong ability to work from own initiative.
- 11. Strong capacity to meet deadlines.
- 12. Excellent team working skills in multiple internal and external team settings
- 13. Leadership qualities.
- 14. Excellent problem-solving skills.
- 15. Irregular hours including evening, weekend and other out-of-hours working will be a component of the research at times.
- 16. Must be willing to travel to national and international meetings and collaborative laboratories.

DESIRABLE CRITERIA:

- 1. Home Office personal licence including modules A, B and C.
- 2. Recent hands on experience of transgenic mouse colony management.
- 3. Recent practical experience of Crispr-Cas9 genome editing.
- 4. Recent practical experience of iPSC culture.
- 5. Experience of cardiovascular phenotyping of mouse models.
- 6. Experience in mouse echocardiography.
- 7. Previous experience of studying PKA-signalling in cells and mice.
- 8. Previous experience in use of Adenovirus or adeno-associated virus for transduction of mouse cells in vivo.
- 9. Experience teaching lab members as well as undergraduate lectures/tutorials/practicals.
- 10. Research project management training.
- 11. Up-to-date knowledge of fields of murine phenotyping, heart failure biology.
- 12. Experience working in outreach settings.

ADDITIONAL INFORMATION:

Informal enquiries can be directed to: Prof David Grieve; - d.grieve@qub.ac.uk.