

## Candidate Information

<b>Position:</b>	Research Fellow in Vascular Stem Cell Biology
<b>School/Department:</b>	Centre for Experimental Medicine
<b>Reference:</b>	19/107967
<b>Closing Date:</b>	Thursday 2 January 2020
<b>Salary:</b>	£33,797 - £40,322 per annum
<b>Anticipated Interview Date:</b>	Wednesday 29 January 2020
<b>Duration:</b>	Available until 30 September 2022

### JOB PURPOSE:

To join the Vascular Stem Cell Biology Research team within the Wellcome-Wolfson Institute for Experimental Medicine to work on a project funded by the British Heart Foundation (BHF). The project will employ in vitro and in vivo model systems and cell and molecular biological approaches to investigate the regulation of metabolism in vascular progenitors to improve tissue regeneration in ischaemic disease. The post is suited

### MAJOR DUTIES:

1. To be actively involved in the existing research programme as directed by the line manager and to ensure adequate planning and progression of the investigation so that the overall research objectives for the project are met.
2. Design, develop and refine experimental models to investigate vascular repair and re-perfusion of ischaemic tissues in order to obtain reliable and reproducible data.
3. Carry out analyses, critical evaluations, and interpretations using methodologies and other techniques appropriate to area of research.
4. Present regular progress reports on research to members of the research group or to external audiences to disseminate and publicise research findings.
5. Prepare, in consultation with supervisor, material for publication in national and international journals and presentations at international conferences.
6. Assist grant holder and co-investigators in the preparation of funding proposals and applications to external bodies.
7. Carry out routine administrative tasks associated with the research project to ensure that project milestones are completed on time and within budget. These might include organisation of project meetings and documentation, financial control, risk assessment of research activities.
8. Carry out undergraduate/postgraduate/visiting researcher supervision, within the post holder's area of expertise and under the direct guidance of a member of academic staff.
9. Assist in other laboratory related duties including outreach activities, within the general range of the post and competence of the post holder.

### Planning and Organising:

1. Plan for practical and specific aspects of the research project. Timescales range from 1-6 months in advance and contribute to overall research group planning.
2. Plan for the use of research resources, laboratories and workshops where appropriate.
3. Plan own day-to day activity within framework of the agreed research programme.
4. Plan up to a year in advance to meet deadlines for progress reports, journal publications and presentations for conferences.
5. Coordinate and liaise with other members of the research group over work progress.

### Resource Management Responsibilities:

1. Ensure research resources are used in an effective and efficient manner including liaising with vendors, and routine ordering of research consumables through P2P.

2. Provide guidance as required to support staff and any postgraduate/undergraduate students and visiting researchers who may be assisting with research work within the group.

**Internal and External Relationships:**

1. Liaise on a regular basis with supervisor and other members of the research team.
2. Build internal networks for the exchange of information and to form relationships for future collaboration.
3. Join external networks to share information and ideas.

**ESSENTIAL CRITERIA:**

1. Have or about to obtain a PhD in Molecular Biology, Cell Biology, or a closely related area of Biomedicine.
2. At least 3 years recent, hands-on, experience that will demonstrate relevant laboratory skills that are relevant for this project, such as cell culture, PCR, western blotting, and flow cytometry.
3. Recent extensive hands-on experience in molecular cell biology techniques including at least two of the following:
  1. mammalian tissue culture
  2. genetic modification of cells
  3. use of disease-linked in vivo model systems
  4. In vitro cellular functional assays
4. Evidence of a key role in publication in internationally recognised, high-quality peer reviewed journals. This list should be current, relevant to the project area and commensurate with stage of career and experience
5. Computing skills especially software commonly used in biomedical research (for example imaging, flow cytometry, real-time PCR software, gene expression analysis).
6. Methodical approach to project management in regards to experimental procedures and record keeping.
7. Sufficient breadth and depth of specialist knowledge in the discipline and of research methods and techniques to enable work within established regenerative medicine research programmes.
8. Ability to communicate complex information clearly.
9. Demonstrable intellectual ability and awareness of the scientific literature pertaining to area of interest.
10. Ability to assess and organise resources.
11. An ability to work independently and to organise their weekly tasks to optimise productivity and ensure progress of a complex, multi-stranded project.
12. Must demonstrate a clear interest in this area of research and show commitment to the specific research topic.
13. Must be prepared to work outside normal office hours.
14. Willing to attend and present at national and international meetings.
15. Animal (mice) work
16. Human blood handling

**DESIRABLE CRITERIA:**

1. Experience with experimental models for stem cell and/or vascular biology.
2. Experience in human cell culture.
3. Personal License for Animal Handling.
4. Handling of blood-derived cells, their isolation and characterisation.
5. Experience in flow cytometry and cell sorting technologies.
6. Experience studying metabolic regulation pathways in cells.
7. Experience in genomic analysis.
8. Direct involvement in investigation of cell pathophysiology to include, imaging or electrophysiology or immunohistochemistry or microscopical investigations during disease.
9. Experience teaching/supervising undergraduate students and visiting researchers in the laboratory.
10. Research Project Management Experience.
11. Computing skills especially for software commonly used in biomedical research such as FlowJo, R, and GraphPad Prism.
12. Evidence of having presented at conferences (poster and/or oral presentations).
13. Problem solving skills.
14. Team working skills and experience.
15. Clear long term goals in research.