Candidate Information

Position:	Research Fellow - Retinopathy
School/Department:	Wellcome-Wolfson Inst for Experimental Medicine
Reference:	20/108529
Closing Date:	Thursday 14 January 2021
Salary:	£33,797 - £36,914 per annum
Anticipated Interview Date:	Wednesday 27 January 2021
Duration:	Available for 12 months

JOB PURPOSE:

To join the retinopathy and vascular progenitor biology research team led by Professor Alan Stitt within the Wellcome Wolfson Institute for Experimental Medicine. The post holder will deliver research relating to several retinopathy projects and employ in in vitro and in vivo model systems and cell and molecular biological approaches to investigate pathophysiological pathways involved in the neurovascular degenerative processes towards therapeutic target development and efficacy. The post is suited to a highly ambitious individual and is available for 12 months in the first instance.

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 dysfunction in the neurovascular unit (NVU) and RPE/choroid axis 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, research experience that will demonstrate relevant laboratory skills that are relevant for this disease-focused molecular cell biology project.
3. Recent, relevant hands-on experience with in vivo models of eye disease and detailed assessment of pathology in real time and post-mortem.
4. Extensive hands-on experience in molecular cell biology techniques including at least three of the following:
    1. Primary culture of retinal and/or vascular progenitor cells
    2. genetic modification of cells
    3. Advanced imaging technology combined with pathological lesion analysis
    4. In vitro cellular functional assays
5. 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
6. Computing skills especially software commonly used in biomedical research (for example imaging, flow cytometry, real-time PCR software, gene expression analysis).
7. Must hold a personal licence from the Dept of Health relating to animal research.
8. Methodical approach to project management in regards to experimental procedures and record keeping.
9. 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.
10. Ability to communicate complex information clearly.
11. Demonstrable intellectual ability and awareness of the scientific literature pertaining to area of interest.
12. Ability to assess and organise resources.
13. An ability to work independently and to organise their weekly tasks to optimise productivity and ensure progress of a complex, multi-stranded project.
14. Problem solving skills.
15. Team working skills and experience.
16. Must demonstrate a clear interest in this area of research and show commitment to the specific research topic.
17. Must be prepared to work outside normal office hours.
18. Must be prepared to travel to and work with international collaborative partners for no more than a total two weeks per year.
19. Willing to attend and present at national and international meetings.
20. Animal (mice) work.

DESIRABLE CRITERIA:

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