



Job Description

Research Fellow (Ref. 1856403)

**Grade: 7, £35,965 - £43,470 incl.
London allowance per annum**

**Full-time (36.5 hrs per week)
2 years in the first instance**

Department: Institute of Ophthalmology

**Location:
Bath Street, London EC1V 9EL**

Reports to

Professor Christiana Ruhrberg

Context

Professor Ruhrberg's laboratory is located at the UCL Institute of Ophthalmology, which has received the highest possible ratings in all previous Research Assessment Exercises from the Higher Education Funding Council for England. The Institute is part of UCL, which is the top rated university in the UK for research power. UCL has also been rated the eighth best university in the world, according to the 2020 QS World University Rankings.

The Institute has a multi-disciplinary research portfolio to further our understanding of human health, with a focus on the visual system and the mission to advance the prevention and treatment of eye disease. Close links with Moorfields Eye Hospital and integration with other UCL Institutes and partner hospitals provide an unparalleled setting for research and training in vision science and many other areas of health research.

The Institute employs around 250 staff, has a budget of £25m and is located next to the City of London's main financial district near Old Street underground station and a short distance from Liverpool Street, Kings Cross and St Pancras International rail stations.

The project

The Ruhrberg laboratory has a vacancy for a highly motivated, creative and independently thinking research fellow with a passion to carry out health-relevant basic biology research in vascular biology.

The Ruhrberg laboratory combines tissue culture and transgenic models to uncover fundamental molecular and cellular mechanisms of organ vascularisation in health and disease. For further information on past and current research in the laboratory, see <https://www.ucl.ac.uk/ioc/research/ruhrberg-lab>.

Vascular biology research in Professor Ruhrberg's laboratory benefits from collaborations and scientific exchange with several other research teams across UCL and other research institutes across London and several other international Universities.

The project will combine biochemical and tissue culture assays to determine how the vascular endothelial protein NRP1 regulates blood vessel growth in the brain and retina through novel interactions with other proteins at the endothelial cell surface. Comprehensive pilot data support the feasibility and importance of the project.

The post holder will have access to funding that supports presentation of successful work at national and international meetings in the area of vascular biology.

The role

The post holder will carry out biomedical research that will tackle challenging new questions and foster international collaboration. Working closely with other team members and collaborating laboratories, the post holder will employ a combination of biochemical, molecular and cell biological experiments and also take in vivo approaches with transgenic models.

Duties and responsibilities

- Lead and take responsibility for sets of experimental objectives.
- Supervise, design and carry out experiments as required to achieve the experimental objectives.
- Contribute to the smooth running of the laboratory and perform general laboratory tasks including, for example, reagent preparation.
- Write manuscripts for publication.
- Keep up-to-date with the current literature and report them to Professor Ruhrberg.
- Present work at national and international meetings.
- Contribute to the training of other research staff and students as requested.
- Contribute to the overall activities of the research team as required.
- Carry out any other duties that are within the scope, spirit and purpose of the job, the title of the post and its grading as requested by the supervisor.

Person Specification

Criteria	Essential or Desirable	Assessment method (Application/Interview)
Education and Qualifications		
1. BSc in a biological science	Essential	Application/Interview
2. PhD in a biological or biochemical discipline	Essential	Application/Interview
Experience and knowledge		
3. Experience in tissue culture models of primary cells	Essential	Application/Interview
4. Experience in biochemical techniques including immunoblotting, immunoprecipitation and protein interaction assays	Essential	Application/Interview
5. Experience in molecular and cell biology techniques, including DNA isolation, cell transfection, immunostaining of cells and cyrosections	Essential	Application/Interview
6. Experience in writing manuscripts	Essential	Application/Interview
7. Knowledge of transgenic and knockout model	Essential	Interview
8. Knowledge of cell and developmental biology	Essential	Interview
9. Knowledge of vascular biology	Essential	Interview
10. Evidence of completed research and a suitable publication record.	Essential	Application/Interview
11. Experience in working with transgenic and knockout models	Desirable	Application/Interview
12. Evidence of international recognition of achievement within a relevant subject area.	Desirable	Application/Interview
13. Experience in peer-reviewing manuscripts	Desirable	Application/Interview
Skills and abilities		
14. Ability to work diligently	Essential	Application/Interview
15. Ability to lead/take responsibility for sets of experimental objectives	Essential	Application/Interview
16. Ability to work effectively as a member of a team	Essential	Application/Interview
17. Ability to work to strict deadlines and manage time effectively	Essential	Application/Interview
18. Ability to communicate effectively in writing and in person	Essential	Application/Interview

Criteria	Essential or Desirable	Assessment method (Application/Interview)
19. Ability to apply modern computer technology	Essential	Application/Interview
20. Ability to carry out and review literature searches	Essential	Application/Interview
21. Ability to carry out biochemical, molecular biology, cell biology and histology techniques independently and competently	Essential	Application/Interview
22. Ability to work with transgenic models independently and competently	Desirable	Application/Interview
Personal qualities		
23. Ability to undertake research work enthusiastically and accurately	Essential	Application/Interview
24. Commitment to high quality research	Essential	Application/Interview
25. Capacity to be flexible in approach to work	Essential	Interview
26. Ability to work effectively as part of a team	Essential	Application/Interview
27. Ability to communicate and work effectively with supervisor, team members and collaborators within and outside the institute	Essential	Application/Interview
28. Ability to follow instructions accurately	Essential	Interview
29. Ability and commitment to keep accurate laboratory records	Essential	Interview
30. Ability and commitment to act upon own initiative when need arises	Essential	Interview
31. Commitment to learn and readily master new techniques	Essential	Application/Interview
32. Commitment to supervise other team members	Desirable	Application/Interview
33. Commitment to acquire management skills	Desirable	Application/Interview
34. Commitment to UCL's policy of equal opportunity	Essential	Interview
35. Commitment to work harmoniously with colleagues of all cultures and backgrounds	Essential	Interview
36. The staff member has a responsibility to carry out their duties in a resource efficient way and actively support UCL's Sustainability Strategy, policies and objectives within the remit of their role	Essential	Application/ Interview