

## Project Description

Applications are invited for a three-year PhD fellowship at UCL Institute of Ophthalmology (IOO) under the supervision of Dr Patric Turowski and Prof Pete Coffey. The ideal start date is after 1st September 2017. This project is aimed at characterising the mitochondrial dynamics in retinal pigment epithelium (RPE). The RPE constitutes a protective cell layer in the eye located at the back of the retina. RPE mitochondria are crucial for dealing with the chronic accumulation of retinal waste. We have identified a novel family of proteins, ARMCX, which appear key to mitochondrial health and dynamics and propose to study how they regulate RPE function. The successful candidate will be using cutting edge technology, in particular cell and mitochondrial biology, molecular genetic, biochemistry, live cell microscopy and electron microscopy.

## Environment

All of the research will be conducted at UCL with the majority at the IOO. The IOO is one of the world's leading centres of vision research. It is closely associated with Moorfield's Eye Hospital (MEH) and the NIHR- funded BRC for Ophthalmology to ensure a strong focus on translational research and exceptional research and training opportunities. The IOO is part of the UCL School of Life and Medical Sciences (SLMS), a UK leader in medical and health research. In the REF2014 UCL came out on top in terms of overall research strength. UCL also has the greatest amount of 4\* research in medicine and biological sciences. Overall this makes UCL and the IOO one of the best possible training environments for a PhD. The IOO is a major training centre for postgraduate students, with currently over 100 registered PhD/MD students. Students receive mentorship and training in transferable skills. Regular student meetings and social activities are organised by the students' rep committee to foster a sense of community and regular exchange of their experiences. The IOO is committed to championing equality and has won a Silver Athena Swan award in 2013.

Dr Turowski is an internationally-recognised expert in cell biology and signalling. To date he has supervised 10 PhD/MD and 7 MSc/MRes students. Key achievements have been published in IOVS, J Cell Sci, Mol Biol Cell, Dev Cell and PNAS.

## Ideal person specification

- A good degree (2.1 or above; or equivalent EU/overseas degree) in a biology/neuroscience/biomedical subject area, and in addition ideally a MSc in a related area.
- Interested in cell biology and eye diseases as well as translational research
- Excellent experimental skills, preferably in mitochondrial biology, and in molecular and cellular biology
- Good analytical/mathematical skills, preferably with some knowledge of bioinformatics approaches.
- Good communication skills - especially in written English.
- A very strong work ethic, with the ability to think creatively and work within a team.

## Duties and Responsibilities

- RPE Cell Biology
- Characterisation of ARMCX proteins and mitochondrial function in RPE
- Work in collaboration with other researchers and prepare progress reports on research as required.
- Prepare presentations, including text and images, for delivery by self and others.
- Travel for collaboration and other meetings or conferences.
- Prepare manuscripts for submission to peer-reviewed journals.
- Contribute to the overall activities of the research team, department and be aware of UCL policies.

## Informal enquiries

Please email Dr Patric Turowski for further information about the project (p.turowski@ucl.ac.uk).

### **Application procedures**

Application is by CV and covering letter (including motivation for applying) emailed to p.turowski@ucl.ac.uk  
Closing Date: 7 July, 2017

### **Funding Notes**

This studentship is funded for 3 years by Moorfields Eye Charity. It will cover UK/EU UCL PhD tuition fees and an annual salary stipend at £19,500 with laboratory consumable specific to the project of £8,071 per year.