

Candidate Brief

Aston Prize Fellow

Reference: R180312

Salary: £32,548 to £36,613 [Grade 8]

Contract Type: Fixed Term (until 31 December 2020)

Basis: Full Time

Closing Date: 23:59 hours BST on Monday 16th July 2018

Interview Date: TBC

EXCELLENT
DIFFERENT
DISTINCTIVE
ASTON



Job description

Job Purpose:

To undertake research in line with the research strategy of the host School/Institute, as well as of the University and to contribute to the School's academic administration and teaching. To develop the skills and attributes required of a full member of the Academic staff of the University.

We are looking for a highly motivated individual to join the School of Life and Health Sciences to translate our discovery of AQP4 regulation into a treatment for cytotoxic CNS oedema by generating a drug discovery platform based on understanding the complete molecular mechanism of AQP4 relocalization. Professor Roslyn Bill and her team discovered the molecular mechanism of aquaporin regulation. The Aston Prize Fellow will work in concert with her team to drive the research forward by undertaking high quality research activities within an established research programme.

It is essential that the successful candidate's research furthers the international reputation of the School and the University. This Fellowship is held for 2 years in the first instance and the Fellow will be supported to obtain a personal fellowship or other funding prior to moving to an open ended academic contract.

Main Duties/Responsibilities:

Research

- ▶ To conduct research in the field of AQP4 regulation.
- ▶ To define the complete mechanism of AQP4 regulation. Our discovery of a new method of AQP4 regulation provides the rationale for this fellowship. We will obtain a complete mechanistic framework of how calcium influx triggers AQP4 relocalization, the currently-unknown molecular identity of vesicles and regulatory proteins transferring AQP4 to and from the plasma membrane and the link we have discovered between AQP4 homo-oligomerisation and trafficking. Interactions between AQP4 and proteins that regulate its membrane abundance will be characterized.
- ▶ To validate inhibitors, identified from current *in vitro* understanding in a more physiological model and, by collaboration, *in vivo*.
- ▶ To identify new inhibitors using high-throughput screening. Our 96-well assays measure cell volume changes and cytoplasmic-to-membrane translocation. Screening across a panel of approved, annotated and diverse chemical sets will identify new molecules that modulate AQP4 sub-cellular localization, including those that can be repurposed. Confirmed hits will progress to cell-surface biotinylation of endogenous AQP4 in human astrocytes.
- ▶ Planning and day-to-day running of the research project.
- ▶ To disseminate research findings using appropriate and effective media such as research seminars, conference presentations and publications.
- ▶ To suggest and contribute to the introduction and development of new models and research techniques in collaboration with colleagues.
- ▶ To identify, develop and secure research grants for external research funding through writing of manuscripts, reports and bids for research grants.
- ▶ To engage in training programmes in the University and externally to develop the skills needed to further the project.

Teaching and learning

- ▶ To provide guidance to undergraduate and graduate students working on related projects and to report on the project process to the line manager on a regular basis.
- ▶ Assist in the supervision of student projects.

External Engagement

- ▶ Willingness to develop and conduct public engagement activities including, for example public talks and discussions, engagements in festivals and popular and specialist media.

- ▶ To attend and participate in internal and external networks as appropriate and within the interests of the School/ University.

Citizenship

- ▶ To provide pastoral care and support to students.
- ▶ To attend and contribute to Academic Department meetings.
- ▶ To take part in staff seminars, cross-departmental activities and events e.g. Open Days, Sixth Form Conferences etc. as appropriate.
- ▶ To display and promote Aston values through own actions and behaviour.
- ▶ To undertake such other duties as may be reasonably requested and that are commensurate with the nature and grade of the post.

Additional responsibilities

- ▶ Engage in continuous personal and professional development in line with the demands of the role, including undertaking relevant training and development activities to develop themselves and support the development of others.
- ▶ Ensure and promote the personal health, safety and wellbeing of staff and students.
- ▶ Carry out duties in a way which promotes fairness in all matters and which engenders trust.
- ▶ Promote equality of opportunity and support diversity and inclusion as well as working to support the University's environmental sustainability agenda and practices.

Person Specification

	Essential	Method of assessment
Education and qualifications	PhD in appropriate biological/biophysical science, relating to the aquaporin field with experience in aquaporin regulation, especially AQP4.	Application form
Experience	<p>Expertise in AQP4 protein chemistry.</p> <p>Experience in cell biology.</p> <p>Expertise in molecular modelling of aquaporin protein structures.</p> <p>Expertise in cell swelling assays and their development.</p> <p>Experience of primary cell culture.</p> <p>Experience of molecular techniques including protein separation and blotting.</p> <p>Record of publishing research outcomes and obtaining funding, as a researcher co-investigator, from external grant awarding bodies.</p>	Application form and interview
Aptitude and skills	<p>Molecular and cell biology techniques including cell culture.</p> <p>Basic laboratory skills including immunohistochemistry, immunocytochemistry, western immunoblotting.</p> <p>Statistical software including Graphpad.</p> <p>IT skills including use of Microsoft Office, spreadsheets and power point presentation.</p> <p>Demonstrable ability to write in concise and scientific English / good publications.</p>	Application form and interview
Other	<p>Commitment to observing the University's Equal Opportunities policy at all times.</p> <p>Ability to attend the University as and when required for the benefit of the project.</p>	Interview

	Desirable	Method of assessment
Education and qualifications	Undergraduate degree in a physical science	Application form
Experience	<p>Record of first author research articles published in peer-reviewed journal.</p> <p>Evidence of ability to win funding for research.</p> <p>Experience of PhD student supervision.</p>	Application form and interview
Aptitude and skills	<p>Ability to communicate complex information clearly, orally and in writing.</p> <p>Highly motivated and committed to continuous self-development.</p> <p>Excellent organisation skills and individual initiative.</p>	Application form and interview.

How to apply

You can apply for this role online via our website www.aston.ac.uk/jobs. Applications should be submitted by 23.59pm on the advertised closing date. All applicants must complete an application form, along with your CV.

Any CV sent direct to the Recruitment Team and Recruiting Manager will not be accepted. If you require a manual application form then please contact the Recruitment Team via recruitment@aston.ac.uk.

Contact Information

Enquiries about the vacancy:

Name: Professor Roslyn Bill

Tel: 0121 204 4274

Email: r.m.bill@aston.ac.uk

Enquiries about the application process, shortlisting or interviews:

Recruitment Team via recruitment@aston.ac.uk or 0121 204 4500.

Additional Information

Visit our website www.aston.ac.uk/hr for full details of our salary scales and benefits Aston University staff enjoy

Salary Scales: <http://www.aston.ac.uk/staff/hr/payroll-pensions-and-benefits/salary-scales/>

Benefits: <http://www.aston.ac.uk/staff/hr/payroll-pensions-and-benefits/>

Working in Birmingham: <http://www.aston.ac.uk/birmingham/city-living/>

Employment of Ex-Offenders: Under the Rehabilitation of Offenders Act 1974, a person with a criminal record is not required to disclose any spent convictions unless the positions they applying for is listed an exception under the act.

Eligibility to work in the UK: Candidates who are not citizens of the United Kingdom, or another EEA member country, should check their eligibility to enter or remain the UK in advance of making any job application via the UKVI website <https://www.gov.uk/browse/visas-immigration/work-visas>. Before applying you should ensure that you meet the requirements, including meeting the English language standards. If you do not meet the eligibility criteria, any application for a work visa would be unsuccessful

Equal Opportunities: Aston University promotes equality and diversity in all aspects of its work. We aim to ensure, through our admissions policies for students, and our staff recruitment and selection processes that we encourage applications from all groups represented in the wider community at a local, national and international level.

The University will endeavour not to discriminate unfairly or illegally, directly or indirectly, against student or potential students, staff or potential staff. This commitment applies to all functions of the University and to any stage of an individual's career.

An Equal Opportunities Monitoring Form is included within the application form. Data you provide on the Equal Opportunities Monitoring Form will be included in a general database, for statistical monitoring purposes, enabling the University to monitor the effectiveness of its Policy, Codes of Practice and Guidelines on Equal Opportunities in Employment. Individuals will not be identified by name.

Data Protection Act 1998: Your personal data will be processed in compliance with the DPA and from 25 May 2018 with the GDPR. The University's Data Protection Policy and Privacy Notices, including the Job Applicant Privacy Notice can be found at <http://www.aston.ac.uk/data-protection>. Your application will only be used to inform the selection process, unless you are successful, in which case it will form the basis of your personal record with the University which will be stored in manual and/or electronic files. Information in statistical form on present and former employees is given to appropriate outside bodies.



Full details of our terms and conditions of service and associated policies and procedures are available online at www.aston.ac.uk/hr

