

Position for Early Stage Researcher (36 months)

Title: **To examine the mechanisms of neurotransmitter mediated axon-glial and glial-glial signalling in CNS white matter.**

Team:

Head: Prof. Arthur Butt

Methods

Live cell imaging, calcium imaging, organotypic tissue culture, electrophysiology, immunohistochemistry, confocal microscopy

Candidate profile:

Essential to have at least a first degree or equivalent to a minimum of upper second class BSc in Neuroscience, Biomedical Science, Physiology, Pharmacology or related subject. Laboratory experience is preferred, and experience in one of the techniques would be an advantage.

Contact

Please send a letter of intent and your CV (including two references) by email to Dr. Sigrid Diether (sigrid.diether@uak-swm.de). She will forward all applications to Prof. Arthur Butt.

You will find the respective details on our project website: <http://www.eduglia.eu/partner.html>



.: Job Market

- ▶ Place a job ad
- ▶ Search for a job

.: Description

FENS invites all laboratories, institutes or companies with vacancies to send in a job description.

The Job Market website presents an overview of available jobs for PhD students, post-docs, up to senior staff positions and professorships. This service is free to all neuroscientists.

FENS members receive a monthly e-mail alert with a short description of new jobs.

.: Job Market

[XML](#)

Job details

Job #23723, added on 02/10/10, 17:35:16

Job Information

Ph.D. Student in Portsmouth/UK
 Start of 2010-04-01
 employment:
 Application n/a
 deadline:
 Duration: 3 years
 Institution: University of Portsmouth
 Department: Institute of Biomedical and Biomolecular Sciences

Contact Information

Prof. Butt, Arthur
 University of Portsmouth
 Institute of Biomedical and Biomolecular Sciences
 St. Michael's Building
 PO20 8AG Portsmouth
 UK
 Phone: +44-32-9284 8484
 Fax: +44-32-9284 3082
 E-mail: ab.uport@eduglia.eu
 Website: <http://www.port.ac.uk/research/ibbs/cellularandmolecularmedicine/cellularneurophysiology>

Job Description

We invite applications for a Ph.D. Student position being part of the EC Marie Curie Initial Training Network Edu-GLIA (<http://www.eduglia.eu>).

The advertised project aims to investigate mechanisms by which astrocytes regulate vascular tone in CNS white matter comprising mainly axons, astrocytes and the myelinating cells - oligodendrocytes, which are extremely susceptible to ischemia. It is now appreciated that astrocytes facilitate neuronal activity-dependent increases in local blood flow by modulating smooth muscle contraction. White matter capillaries do not have smooth muscle, and regulation of capillary perfusion is believed to be regulated by the contractile pericytes. However, little is known about the mechanisms of astrocyte-pericyte signalling. The lack of specific markers for pericytes in situ has hampered previous studies. We overcome this problem by identifying pericytes in isolated intact optic nerves from transgenic

mice. We have pilot evidence that ATP, glutamate and nitric oxide modulate calcium in pericytes in situ. The project is to determine the mechanisms by which these chemical transmitters mediate dynamic communication between neurons, astrocytes and blood vessels.

Methods:
Confocal microscopic calcium imaging and patch clamp electrophysiology

Your qualifications:
- Degree (M.Sc., diploma or equivalent) in Neuroscience, Biomedical Science, Physiology, Pharmacology or related subject
- Laboratory experience preferred
- Experience in one of the techniques advantageous
- Fluency in English is a plus

Candidates
- Should have less than 4 years of research experience after graduation with a degree allowing to start a doctoral thesis
- Can be nationals of any country other than that of the host institution
- Must not have resided in the country of the host institution for more than 12 months in the 3 years immediately prior to their recruitment
- Should not possess a Ph.D.

Please send your CV, a letter of intent and the name of 2 referees to ab.uport@eduglia.eu