PhD Studentship in Neuromuscular Health: determining the role of neuromuscular decline in ageing and disease related musculoskeletal decline

Reference MED1461
Closing Date 31st January 2018
Department School of Life Sciences

Supervisors: Prof Paul Greenhaff, Prof Philip Atherton, Prof John Gladman, and Dr Mathew Piasecki
Funding: NIHR Nottingham Biomedical Research Centre

Project details:
Motor unit (MU) remodelling occurs following muscle fibre denervation, where recently orphaned fibres may become reinnervated by an adjacent surviving axon. This axonal sprouting is thought to act as a survival mechanism intended to 'rescue' denervated fibres and preserve muscle mass. The project will utilise intramuscular electromyography (iEMG) and D2O-proteomics to investigate MU remodelling and to quantify associated neuromuscular markers in order to determine the role of neuromuscular decline in ageing and disease related musculoskeletal decline. The prospective student would be trained in the latest iEMG and D20-proteomics techniques, alongside further measures of neuromuscular health.

Person Specification
Applicants should have a strong background in human physiology, and ideally a background in neuromuscular physiology. They should have a commitment to research in age-related neuromuscular disorders and hold or realistically expect to obtain at least an Upper Second Class Honours Degree in a relevant subject. A relevant Master's degree would be an advantage (not essential). The supervisory team and project will produce the highly skilled, metabolic physiologist that is acutely required to meet the demands of academia and biomedical musculoskeletal focused research.

The studentship would start September 2018 but can be started earlier if the candidate prefers. A later start date could be agreed for the right candidate. The studentship includes payment of tuition fees at the Home/EU rate and a tax free stipend of £14,553 per annum. *International students are welcome, but they have to self-fund the difference between the Home/EU and international fee.*

Applicants must have at a minimum of a UK 2.1 degree (or equivalent) in a relevant discipline. A relevant Master's degree would be an advantage (not essential).

The University of Nottingham is consistently ranked among the world's top 100 by the QS World University Rankings (2018, January, *QS World University Rankings.* Retrieved from URL). The University also offers a world-class research training environment for postgraduate students, including an excellent range of support and services.

This study is being supported by the newly established Nottingham NIHR BRC and will benefit from collaborations within the BRC and the MRC/ARUK Centre for Musculoskeletal Ageing Research.

General information about the Department(s)/Institution(s) can be found at:

Nottingham Biomedical Research Centre: www.nottinghambrc.nihr.ac.uk

MRC/ARUK Centre for Musculoskeletal Ageing Research:
https://www.birmingham.ac.uk/generic/mrc-aruk/home.aspx
School of Medicine: http://www.nottingham.ac.uk/medicine/index.aspx
School of Life Sciences: http://www.nottingham.ac.uk/life-sciences

How to apply
Informal enquiries should be directed to Bonnie Millar (bonnie.millar@nottingham.ac.uk)
Dr Mathew Piasecki (mathewpiasecki@btinternet.com)
Prof Philip Atherton (Philip.atherton@nottingham.ac.uk)
Applications should be directed to Bonnie Millar (bonnie.millar@nottongham.ac.uk). To apply, please send:

- A detailed CV, including your nationality and country of birth;
- Names and addresses of two referees;
- A covering letter highlighting your research experience/capabilities;
- Copies of your degree certificates with transcripts;
- Evidence of your proficiency in the English language, if applicable.

Interviews will take place February 2018.
Please quote the following reference when applying:

- Information for candidates (pdf | doc)