University of Birmingham

Dr James Fisher BSc (Hons), PhD

Senior Lecturer in Exercise Physiology

School of Sport, Exercise and Rehabilitation Sciences

Contact details

Telephone +44 (0)121 414 8011

Fax +44 (0)121 414 4121

Email j.p.fisher@bham.ac.uk

School of Sport, Exercise and Rehabilitation Sciences
University of Birmingham
Edgbaston
Birmingham
B15 2TT
UK

About

Dr James Fisher is an Exercise Physiologist working in the field of human cardiovascular control. The focus of his laboratory is on the neural regulation of the heart and blood vessels in human health and disease.

Qualifications

- BSc (Hons) Sport and Exercise Sciences. 1st class. (University of Birmingham)
- PhD Sport and Exercise Sciences (University of Birmingham)

Biography

Following completion of his PhD in 2004, Dr James Fisher undertook a British Heart Foundation funded post-doctoral position which provided him the opportunity to work in the laboratories of Dr Niels Secher (University of Copenhagen, Denmark) and Dr Peter Raven (university of North Texas Health Science Center, Fort Worth, Texas, USA).

In 2006, Dr Fisher relocated to the USA where he worked in the laboratory of Dr Paul Fadel (University of Missouri, Columbia, Missouri) as an American Heart Association funded post-doctoral research fellow investigating the effects of age on arterial baroreflex function. In 2008 he was appointed as a Lecturer in the School of Sport and Exercise Sciences and maintains active collaborations with groups in the USA (Dr. Fadel, University of Missouri-Columbia), Denmark (Prof. Secher, University of Copenhagen), Japan (Prof. Ogoh, Toyo University) and Brazil (Dr. Vianna & Prof. Nobrega, Fluminense Federal University).

Dr Fisher regularly published in high impact physiology journals and has been the recipient several international research awards, including the Michael J. Brody Young Investigators Award (2008) and the Neural Control and Autonomic Regulation Section New Investigators Award (2013) from the American Physiological Society.

Teaching

- BSc (Hons) Sport, Exercise and Rehabilitation Sciences. Module Organiser, Exercise Physiology, Level II.
- BSc (Hons) Sport, Exercise and Rehabilitation Sciences. Lecturer, Testing in Sports and Exercise Sciences, Level II.
- BSc (Hons) Sport, Exercise and Rehabilitation Sciences. Supervisor, Dissertation Research Project, Level III.
- BMedSci (Hons) Lecturer, Biology of Ageing, Level IV.
- BMedSci (Hons) Lecturer, CVS Integrative Mechanisms, Level IV.
- MSc. Lecturer. Sport and Exercise Sciences.

Postgraduate supervision

Dr James Fisher currently supervises four PhD students. Alena Shantsila is examing the link between respiration and sympathetic nerve activity in patients with high blood pressure. Ahmed Adlan is investigating how inflammation effects autonomic function in human health and disease. Igor Braz's work concerns the influence of age and physical activity on cerebral blood flow regulation. Clare McNulty is examining the associations between age, inflammation and physical activity.

Prospective students should consult **FindaPhD** for the latest PhD project vacancies.

Research

Dr James Fisher's research broadly concerns the neural control of the cardiovascular system at rest and during exercise in human health and disease. His main areas of interest are:

- the effects of age and gender on cardiovascular and cerebrovascular regulation during exercise;
- mechanisms underlying sympathetic neural hyperactivity in chronic disease.

This work is funded by the British Heart Foundation, Arthritis Research UK, Royal Society and the BBSRC.

Other activities

Dr James Fisher is an active member of the Physiological Society (England) and the American Physiological Society, and is a Fellow of the Higher Education Academy (FHEA), UK.

Publications

Fisher JP. (2013) Autonomic control of the heart during exercise in humans: role of skeletal muscle afferents. Exp Physiol. In press.

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Fisher JP, Kim A, Hartwich, & Fadel PJ. (2012) New insights into the effects of age and sex on arterial baroreflex function at rest and during dynamic exercise in humans. Auton Neurosci. 172(1-2):13-22. doi: 10.1016/j.autneu.2012.10.013.

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Kim A, Deo S, Fisher JP & Fadel PJ. (2012) Effect of sex and ovarian hormones on carotid baroreflex resetting and function during dynamic exercise in humans. J Appl Physiol. 112(8):1361-71.

Fisher JP & Paton JFR. (2011). The sympathetic nervous system and blood pressure in humans: Implications for hypertension. J Human Hypertension. doi: 10.1038/jhh.2011.66.

Fisher JP & Secher NH. (2011) The brain at work. J Physiol. 15;589(Pt 18):4405.

Kim A, Young CN, Deo S, Fisher JP & Fadel PJ. (2011) Sex differences in carotid baroreflex control of arterial blood pressure in humans: Relative contribution of cardiac output and total vascular conductance. Am J Physiol Heart Circ Physiol. 301(6):H2454-65.

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Carrington CA, Fisher JP, Davies MK & White MJ. (2004) Muscle afferent inputs to cardiovascular control during isometric exercise vary with muscle group in patients with chronic heart failure. Clin Sci (Lond). 107 (2): 197-204.

Fisher JP & White MJ. (2003) The time course and direction of lower limb vascular conductance changes during voluntary and electrically evoked isometric exercise of the contralateral calf muscle in man. J Physiol (Lond). 546: 315-323.

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