

Dr Michelle Swainson

PhD, MSc, BSc (Hons)



Research specialisation: Cardiovascular disease (CVD) risk factors; exercise physiology; obesity identification and characterization; fitness versus fatness.

Experience: 6 years' as an academic in sport and exercise science in Leeds, UK. Joined Leeds Beckett University in 2011 on a part-time basis alongside PhD studies, and was appointed as Senior Lecturer in Sport and Exercise Physiology in 2013. In 2016, appointed as the course leader for the BSc (Hons) Sport, Physical Activity and Health programme. In July 2017, moved to Lancaster University to develop a new sports and exercise science degree and contribute to MBChB teaching. Teaching involvement spans postgraduate and undergraduate courses that include modules related to foundation physiology, physiology of health and disease, applied clinical exercise physiology, exercise for referred populations, as well as professional development. Prior to academia, worked as a Senior Health and Wellbeing Physiologist for UK private healthcare provider – Nuffield Health (2006-2011) – which was also the site of PhD data collection and ongoing work. PhD focus was placed on the “apparently” healthy young to middle-aged working population, investigating associations between non-traditional CVD risk factors and 10-year global risk. Prior to developing interest into CVD risk of the general population, worked as a sport science support assistant alongside MSc studies. This involved support and research with the GB Wheelchair Tennis team – investigating cooling strategies ahead of the Beijing 2008 Olympics. Now, an early-mid career researcher and exercise physiologist with interests in the role of exercise in cardiovascular disease prevention, with additional focus on obesity, workplace health, and promoting health screening for earlier risk identification – including retired sportspeople.

Research overview: Work closely with several collaborators to work on existing large data sets, investigating associations between contemporary CVD risk factors, obesity and fitness. Working closely with Dr Karen Hind on the development of a research portfolio based around DXA-derived visceral adipose tissue assessment. In addition, working towards the evaluation of health assessments to identify CVD risk prior to diagnosis of disease, as a means of developing preventive health strategies.

Postgraduate supervision: 3 Masters students to completion. Currently supervising 2 PhD research students. Topics contribute to research in the areas of exercise as a prevention and treatment for cardiovascular diseases; effects of exercise and adiposity on cardiometabolic risk factors; as well as the autonomic and inflammatory associations with CVD.

Research publications: 9 peer reviewed publications, multiple conference proceedings and 1 invited book chapter (in preparation). Peer reviewer for *PloSOne*, *International Journal of Obesity*, *Biomed Research International*; *Journal of Paediatrics*; *Acta Paediatrica*; *International Journal of Sports Medicine*; *Measurement in Physical Education and Exercise Science*, *Preventive Medicine*.

Example publications:

- **Swainson, M.G.**, Batterham, A.M., Tsakirides, C., Rutherford, Z.H. and Hind, K. (2017) Prediction of whole-body fat percentage and visceral adipose tissue mass from five anthropometric variables. *PloSOne*. 12 (5), e0177175.
- Ingle, L., **Swainson, M.G.**, Brodie, D. and Sandercock, G.R. (2016) Characterization of the Metabolically Healthy Phenotype in Overweight and Obese British Men. *Preventive Medicine*, 94, pp.7-11.
- Ingle, L., **Mellis, M.G.**, Brodie, D. and Sandercock, G.R. (2016) Associations between cardiorespiratory fitness and the metabolic syndrome in British men. *Heart*. 103 (7), pp.524-528.
- Zwolinsky, S., McKenna, J., Pringle, A., Widdop, P., Griffiths, C., **Mellis, M.**, Rutherford, Z.H and Collins, P. (2016) Physical Activity and Sedentary Behavior Clustering: Segmentation to Optimize Active Lifestyles. *Journal of Physical Activity and Health*, 13, pp.921-928.
- **Mellis, M.G.**, Oldroyd, B. and Hind, K. (2014) In vivo precision of the GE Lunar iDXA for the measurement of visceral adipose tissue in adults: the influence of body mass index. *European Journal of Clinical Nutrition*, 68, pp.1365-1367.
- Full profile: https://www.researchgate.net/profile/Michelle_Swainson

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