

Dr Jennifer Susan Barrett

Research Institute for Sport & Exercise Sciences
Liverpool John Moores University
Byrom Street
Liverpool
L3 3AF

Professional experience – Research and Teaching

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| Dec 2022 – Present | Post-doctoral Research Fellow – Liverpool John Moores University Medical Research Council funding to Investigate mechanisms of skeletal muscle insulin resistance in South Asian population. |
| March 2022 – Sept 2022 | Post-doctoral Research Fellow – Liverpool John Moores University Science in Sport funding to investigate fuelling strategies for the female athlete, researching carbohydrate oxidation over the menstrual cycle in female athletes. |
| Sept 2022- Present | Sessional Lecturer – Liverpool John Moores University Lecturer in Physiological and Molecular Adaptations to Exercise. |
| Dec 2018 – Sept 2022 | Teaching Support Officer – Liverpool John Moores University Laboratory and lecture support for undergraduate Sport and Exercise Science physiology modules as well as Major project training laboratory sessions, L7 Integrative physiology weekly seminar delivery and L7 MSc Sports Nutrition Exercise Metabolism laboratory sessions. |

Education

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| Nov 2018 – Feb 2023 | Liverpool John Moores University PhD in Exercise Metabolism and Nutrition, Research Institute of Sport and Exercise Sciences. |
| Oct 2017 – Oct 2018 | Liverpool John Moores University MSc (distinction) Exercise Physiology, School of Sport and Exercise Sciences. |
| Sept 2014 – Sept 2017 | Liverpool John Moores University BSc (2.1) Sport and Exercise Science, School of Sport and Exercise Sciences. |

Awards:

- Best oral communication - BASES student conference (Plymouth, UK. 2017) – Oral communication.
- Top 5 late breaking abstract poster selected for Oral theatre presentation – ADA 82nd Annual Conference (New Orleans, USA. 2022) – Poster and Oral communication.
- Shortlisted for Young investigators award – European College of Sport Science congress (Paris, France. 2023) – Oral communication.

Funding:

- Art of Healthy Aging Network Pump-Priming award – Co-applicant – *Proteome Dynamics to inform healthy ageing*.

Publications:

- Barrett, J.** (2023) The importance of intramuscular triglyceride turnover on skeletal muscle insulin sensitivity. Doctoral Thesis. Liverpool John Moores University.
- Barrett, J.S.,** Strauss, J.A., Chow, L.S., Wang, Y., Shepherd, S.O and Wagenmakers, A.J.M. (2024). GLUT4 localisation with the plasma membrane is unaffected by an increase in plasma free fatty acid availability. *Lipids in Health and Dis*, 23(94).
- Barrett, J.S, A. Crozier, Cuthbertson, D.J., Strauss, J.A., Wagenmakers, A.J.M and Shepherd, S.O. (*Under Review – submitted Jan 2024*). A free-living walking-based exercise programme, where exercise is timed relative to breakfast, is feasible and effective for improving metabolic health in people with obesity. *PlosOne*.
- Barrett, J.S.,** Cuthbertson, D.J., Strauss, J.A., Wagenmakers, A.J.M., Shepherd, S.O. (*In Preparation – to be submitted to PlosOne*). Free living post prandial responses to an acute interval or continuous walking session.
- Stansfield, B.N., **Barrett, J.S.,** Bennett, S., Stead, C.A., Pugh, J., Shepherd, S.O., Strauss, J.A., Louis, J, B., Graeme, C.L., Lisboa, P.J and Burniston, J.G. (*Submitted – Biomolecules*). Turnover rates of human muscle proteins in vivo reported in fractional, mole and absolute units.
- Fortis, H.O., **Barrett, J.S.,** Mosquera, E., Ravikanti, S., Areta, J and Pugh, J. (*Under Review*). No differences in whole body substrate utilisation, exercise capacity or markers of malabsorption between honey-based gels and maltodextrin-fructose gels during 3 h of steady state cycling in trained males. *International Journal of Sports Nutrition and Exercise Metabolism*.
- Lawrence, L.A., Leung, L., **Barrett, J.S.,** Fortis, H.O., Strauss, J.A., Shepherd, S.O. (*In preparation – to be submitted to EJAP*). New Zealand Blackcurrant extract enhances fat oxidation but does not affect intramuscular triglyceride utilisation in human skeletal muscle. *European Journal of Applied Physiology*.
- Barrett, J.S.,** Whytock, K., Strauss, J.A., Wagenmakers, A.J.M and Shepherd, S.O. (2022). High intramuscular triglyceride turnover rates and the link to insulin sensitivity: Influence of obesity, type 2 diabetes, and physical activity. *Applied Physiology, Nutrition, and Metabolism*. 47(4), pp.343-356.
- Ab Malik, Z., Bowden Davies, K., Hall, E., **Barrett, J.,** Pullinger, S., Erskine, R., Shepherd, S., Iqbal, Z., Edwards, B. and Burniston, J. (2020). Diurnal Differences in Human Muscle Isometric Force In Vivo Are Associated with Differential Phosphorylation of Sarcomeric M-Band Proteins. *Proteomes*, 8(3), p.22.
- Burniston, J., **Barrett, J.,** Bennett, S., Stead, C., Louis, J., Close, G. and Lisboa, P. (2020). Dynamic Proteome Profiling of Protein Fractional and Molar Synthesis Rates in Human Muscle in vivo. *The FASEB Journal*, 34(S1), pp.1-1.
- Barrett, J.,** Bennett, S., Thompson, L., Smith, M., Hesketh, S., Sutherland, H., Jarvis, J and Burniston, J. (2017). The effect of Chronic Low Frequency Stimulation on Protein Synthesis rates in rat tibialis anterior muscle. (Abstract only) *Graduate Journal of Sport Exercise Science and Physical Education Research*, 5.
- Bennett, S., **Barrett, J.,** Thompson, L., Smith, M., Hesketh, S., Sutherland, H., Jarvis, J and Burniston, J. (2017). Chronic Low Frequency Stimulation reduces abundance of triose phosphate isomerase in rat tibialis anterior muscle. (Abstract only) *Graduate Journal of Sport Exercise Science and Physical Education Research*, 5.

Professional Memberships:

British Dietetics Association (Sport & Exercise Nutrition Register Affiliate Member- no. 24167)
DiabetesUK Professional Member (no. 4561622)
Physiological society Member (no. 149818)