**Dr. Mark Waldron**

PhD, MSc, BSc

**Research specialisation:** Applied Physiology and Performance

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**Experience:** Dr. Mark Waldron is a Senior Lecturer in Sports and Exercise Sciences at Swansea University (UK) and a Senior Research Fellow at the University of the Sunshine Coast, Australia. Mark is also the Performance Physiology lead for the Welsh Institute of Performance Science. He has 13 years of experience working in sports and exercise sciences, across a range of settings, including his work as a Senior Physiologist at the Defence and Science Technology Laboratory (Dstl) and as a Sports Scientist in professional Rugby League. Mark is a consultant for various elite sports clubs and institutions around the world and frequently publishes research in the area of human performance.

**Research overview:** Mark’s research aims to understand the ways in which applied research can help to improve the health and performance of individuals. This often includes workload monitoring in athletes, as well as the investigation of dietary supplementation and training interventions among both healthy and clinical populations. Specifically, Mark is interested in monitoring athletes or military personnel using wearable micro-technology and enhancing their performance using dietary ergogenic aids or thermal training interventions.

**Postgraduate supervision:** Mark has supervised two PhD students to completion and currently supervises a further ten. These projects include load monitoring using micro-technology in elite athletes, investigations of hyperthermia on cognitive or physical performance and dietary supplements in the heat.

**Research publications:** 100 peer-reviewed publications and 3 invited book chapters. Editorial board member of the *Journal of Science and Medicine in Sport* and Guest Editor for *Sports.* Example publications:

1. Peel, J., McNarry, M., Heffernan, S., Nevola, V. R., Kilduff, L., **Waldron, M.** (2021). The effect of dietary supplements on endurance exercise performance and core temperature in hot environments: a meta-analysis and meta-regression. *Sports Medicine.* DOI:10.1007/s40279-021-01500-2*.*
2. **Waldron, M.**, Fowler, R., Heffernan, S., Tallent, J., Kilduff, L., Jeffries, O. (2021). Effects of heat acclimation and acclimatisation on maximal aerobic capacity compared to exercise alone in both thermoneutral and hot environments: a meta-analysis and meta-regression. *Sports Medicine, 51,* 1509–1525.
3. **Waldron, M.,** Papavasileiou, G., Jeffries, O., Nevola, V., Heffernan, S. M., Kilduff, L. & Tallent, J. (2020). Concurrent adaptations in maximal aerobic capacity, heat tolerance, microvascular blood flow and oxygen extraction following heat acclimation and ischemic preconditioning. *Journal of Thermal Biology*. doi: 10.1016/j.jtherbio.2020.102724.
4. **Waldron, M.,** Jeffries, O., Patterson, S.D, Tallent, J. & Nevola, V. (2019). The time-course of adaptations in thermoneutral maximal oxygen consumption following heat acclimation. *European Journal of Applied Physiology*, DOI: 10.1007/s00421-019-04218-2.
5. Woodhouse, L., Tallent, J., Patterson, S., & **Waldron, M.** (2021). Elite international female rugby union physical match demands: A five-year longitudinal analysis by position and opposition quality. *Journal of Science & Medicine in Sports.* doi.org/10.1016/j.jsams.2021.03.018
6. **Waldron, M.**, Jones, C., Melotti, L., Brown, R., & Kilduff. L. P. (2021). Collision monitoring in elite male rugby union using a new instrumented mouth-guard. *The Journal of Sports & Exercise Sciences,* *5,* 179-187.

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<https://www.swansea.ac.uk/sports-science/astem/>
Performance Physiology Lead: Welsh Institute of Performance Science

<https://www.swansea.ac.uk/sports-science/astem/wips/>

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