Dr Jonathan D. Hughes BSc (Hons), MSc, PGCE, ASCC, PhD

Senior Lecturer in Strength and Conditioning, Cardiff Metropolitan University

Academic and Professional Qualifications

PhD in Exercise Physiology	Massey University
Postgraduate Certificate of Education	University of Greenwich
MSc Sport & Exercise Science	Roehampton University
BSc (Hons) Sport & Exercise Science	University of Chichester

European College of Sport Science (ECSS) – Member

National Strength and Conditioning Association (NSCA) – Professional Member

UK Strength and Conditioning Association (UKSCA) – Accredited Member

British Association of Sport and Exercise Sciences (BASES) – Professional Member

UKSCA Excellence in S&C Awards 2024, Coach of the Year: Education & Research

My research centers on investigating the mechanisms by which eccentric training influences adapationns in muscle strength and activation to develop interventions that optimise performance and reduce injury risk. By employing non-invasive methodologies, I aim to design cutting-edge sports science strategies into practical applications. This approach enables pioneering insights that enhance athletic training and rehabilitation practices. My background in muscle physiology and biomechanics supports a framework for addressing pivotal questions in sports performance and recovery. As an active contributor in high-impact research, my work consistently receives recognition for advancing the field, underscored by significant citations, conference participation, and collaborative excellence. With over 50 research articles, 5 book chapters, and 80+ conference presentations, my work has achieved a Research Interest Score of 1606 on ResearchGate, placing me in the top 15% of researchers, with 805 citations and an H-index of 17.

Selected recent publications:

1. Beato, M., **Hughes, J.D.,** Taber, C., Baumert, P., & Suchomel, T.J. (2025). The rationale and application of eccentric-based exercises in sports. Practical suggestions for its implementation. Strength and Conditioning Journal
2. Gu, Z., Gao, C., Zheng, H., Liao, K., Bishop, C., **Hughes, J.D**., Yin, M., Bi, Z., Li, Z., Li, J. and Chen, M. (2025). Accentuated Eccentric Loading in Countermovement Jumps Vs. Drop Jumps: Effects on Jump Performance and Strength in A Randomized Controlled Trial. Journal of Sports Science and Medicine, *24*(1), pp.20-30.
3. Bright, T.E., Harry, J.R., Lake, J., Mundy, P., Theis, N., & **Hughes, J.D.** (2024). Methodological considerations in assessing countermovement jumps with handheld accentuated eccentric loading. Sports Biomechanics, 1-18
4. Bright, T. E., Handford, M. J., Mundy, P., Lake, J., Theis, N., & **Hughes, J. D.** (2023). Building for the future: A systematic review of the effects of eccentric resistance training on measures of physical performance in youth athletes. Sports Medicine, 1-36.
5. Handford, M. J., Bright, T. E., Mundy, P., Lake, J., Theis, N., & **Hughes, J. D.** (2024). A conceptual framework of different eccentric training methods. Strength & Conditioning Journal, 46(2), 148-158.
6. Handford, M. J., Bright, T. E., Mundy, P., Lake, J., Theis, N., & **Hughes, J. D.** (2022). The need for eccentric speed: A narrative review of the effects of accelerated eccentric actions during resistance-based training. Sports Medicine, 1-23.
7. Benford, J., **Hughes, J.D.** , Waldron, M. and Theis, N. (2020) Concentric versus eccentric training: effect on muscle strength, regional morphology and architecture. Translational Sports Medicine. 4 (1). pp. 46-55. doi:10.1002/tsm2.197

Invited Talks

2025: "Fast Down, Strong Up: Accelerated Eccentric Training for Neural Gains and Injury Resilience in Youth Athletes" – InSPIRe Research Forum – York St John University April 2nd
2024: "Eccentric Training: the need for speed" – UKSCA Annual Conference, Nottingham, September 13-15th
2024: "Enhancing Running/sprinting Performance: A New Tool for Measuring Standing Hip-Extension Strength" - SpeedHub, Cardiff Metropolitan University, Cardiff, May 24th
2023: "Eccentric Training: the known, the unknown and the future" – Middlesex Student Conference, London, March 4th
2022: "Eccentric Training History: what we know and where we need to head" – UKSCA Regional Workshop, Coventry, November 1st

Postgraduate Research Supervision

I have successfully supervised 7 PhD candidates to the completion of their degrees, along with six MSc students through research-based programs. Currently, I am supervising four additional PhD students who are engaged in diverse projects, all centered on training modalities with a particular emphasis on eccentric training and strategies for injury risk mitigation. Furthermore, I have been invited to serve as an examiner for eight PhD dissertations, each focusing on adaptations related to eccentric training and comprehensive approaches to reducing injury risk.

Research Funding

Over my career, I have been actively involved in securing and managing research funding that collectively amounts to substantial financial support focused on sport science and injury risk reduction. The total funding I have participated in exceeds £585,000, encompassing various collaborative projects and individual grants. Key contributions include significant grants such as the €60,000 ERASMUS+ initiative for reducing injury risk in youth athletes and US$120,000 from the Prince Faisal Bin Fahad Award for Sports Research to assess the impact of coaching education on youth movement competency. Other notable projects include the £28,800 grant from The Football Association for talent identification and recruitment analysis and various research endeavors exploring neuromuscular performance, training load, and fatigue recovery profiles in athletes. These projects underscore my commitment to advancing sport science and mitigating injury risks through comprehensive research and innovative approaches.

Wider Acadmemic roles and contributions

01/2023 – Present: Senior Lecturer in Strength and Conditioning, Cardiff Metropolitan University, UK
09/2012 – 12/2022: Senior Lecturer, Academic Course Leader MSc Sports Strength & Conditioning. University of Gloucestershire, UK
03/2012 – 08/2012: Lecturer in Sport & Human Performance, UCOL, New Zealand
07/2006 – 02/2012: Lecturer Sport & Exercise Science, Massey University, New Zealand

Research Roles

2025 – present: Section Editor Sport Phyisology for the *Sport Sciences for Health* Journal
2023 – present: Chair of the Cardiff School of Sport and Health Sciences Natural Ethics panel
2018-21: Community of Applied Sport and Exercise Sciences Research Lead – University of Gloucestershire
2015-21: Member of Leadership Group for Sport and Exercise – University of Gloucestershire
2016-2022: School Research Ethics Panel member – University of Gloucestershire
2015 – Present: Member of the research and community grants panel - UKSCA

External Examination Roles

2015: Validation of BSc (Hons) Strength and Conditioning for University of Winchester
2015 – 2019: MSc Strength and Conditioning for Coventry University
2020 – 2024: MSc Strength & Conditioning for Leeds Beckett University
2020 – 2024: MRes Sport and Exercise and MRes Health Science for University of Winchester