

Craig Sale BSc (Hons), MSc, PhD, FACSM

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Present Position(s)

Since 23rd May 2022 – Professor of Human Physiology and Nutrition; Deputy Director and Head of Research Institute of Sport; Research Lead Department of Sport and Exercise Sciences at Manchester Metropolitan University

Since 2012 – Visiting Research Professor, University of Sao Paulo, Brazil.

Education

1997 to 2002 – PhD at Liverpool John Moores University.

1995 to 1996 – M.Sc. Sports Science (Physiology) at Liverpool John Moores University.

1992 to 1995 – B.Sc. (Hons) Sports Science at Liverpool John Moores University.

Relevant Work Experience

2008 – 2022: Professor of Human Physiology (formerly Reader in Applied Physiology 2011-2015 and Senior Lecturer 2008-2011), and Director of the Sport, Health and Performance Enhancement Research Centre, Nottingham Trent University.

Key roles included:

- Co-Lead of the NTU Health & Wellbeing Strategic Research Theme
- Director of the Sport Health and Performance Enhancement (SHAPE) Research Centre.
- UoA C26/C24 Co-ordinator for REF 2014 and 2021.
- School Research Committee Member.
- Chair of the Human Invasive Research Ethics Committee.
- Member of the University Research Committee.
- Member of the University Research Integrity Committee.
- Member of the Health and Well-Being Steering Group.
- Member of the Mansfield Action Research and Income Workstream Steering Group.
- Member of the Task and Finish Group relating to research ethics.
- Member of the Task and Finish Group relating to Research Centres.
- Department of Sport Science Senior Leadership Team.

2006 – 2008: Deputy Capability Group Leader, Senior Scientific Officer, QinetiQ Ltd.

2006 – 2008: Honorary Research Associate, Liverpool John Moores University.

2001 – 2006: Lecturer/Senior Lecturer in Exercise Physiology, University of Chichester.

2000 – 2001: Laboratory Technician, Liverpool John Moores University.

1996 – 1997: Researcher, Optimal Performance Limited.

Selected recent publications

1. Pratt J, Gebre A, Toro-Huamanchumo CJ, Dent E, Bozanich T, Lim WE, Byrnes E, McDonagh J, Ferguson C, Sale C, Zhu K, Schultz C, Prince RL, Lewis JR, Sim M. (in press). High-Sensitivity Cardiac Troponin I and Frailty: Associations with the Frailty Index and Fried Phenotype in Older Women. *J Gerontol A Biol Sci Med Sci*. doi: 10.1093/gerona/glaf235.
2. Lavilla CJ, Billacura MP, Khatun S, Cotton DP, Lee VK, Bhattacharya S, Caton PW, Sale C, Wallis JD, Garner AC, Turner MD. Carnosinase inhibition enhances reactive species scavenging in high fat diet. *Life Sci*. 2025, 1, 364:123448. doi: 10.1016/j.lfs.2025.123448.
3. Slater T, Mode WJA, Bonnard LC, Sweeney C, Funnell MP, Smith HA, Hough J, James RM, Varley I, Sale C, Betts JA, James LJ, Clayton DJ. Substituting Carbohydrate at Lunch for Added Protein Increases Fat Oxidation During Subsequent Exercise in Healthy Males. *J Clin Endocrinol Metab*. 2025, 110(3), e728-e740. doi: 10.1210/clinem/dgae237.
4. Matthews JJ, Creighton JV, Donaldson J, Swinton PA, Kyrou I, Bellary S, Idris I, Santos L, Turner MD, Doig CL, Elliott-Sale KJ, Sale C. β -alanine supplementation in adults with

- overweight and obesity: a randomized controlled feasibility trial. *Obesity* (Silver Spring). 2025, 33(2), 278-288. doi: 10.1002/oby.24204.
5. Civil R, Brook MS, Santos L, Varley I, Elliott-Sale KJ, Lensu S, Ahtiainen JP, Kainulainen H, Koch LG, Britton SL, Wilkinson DJ, Smith K, Atherton PJ, Sale C. The effects of endurance trainability phenotype, sex, and interval running training on bone collagen synthesis in adult rats. *Bone*. 2024, 189, 117257. doi: 10.1016/j.bone.2024.117257.
 6. Hardy EJ, Bass JJ, Inns TB, Piasecki M, Piasecki J, Sale C, Morris RH, Lund JN, Smith K, Wilkinson DJ, Atherton PJ, Phillips BE. Exploring the utility of ultrasound to assess disuse atrophy in different muscles of the lower leg. *J Cachexia Sarcopenia Muscle*. 2024, 15(6), 2487-2496. doi: 10.1002/jcsm.13583.

Selected recent grants

1. May 2025 – Characterising Dietary Intake, Nutritional Status And Barriers To Nutrition: Assessing The Efficacy Of A Novel Dietary Intervention Aimed At Addressing Muscle Loss In Inclusion Body Myositis. Myositis UK.
2. December 2024 – Effects of 4-months Methylsulfonylmethane Supplementation On Knee Laxity And MR-derived Metrics Of Anterior Cruciate Ligament Health In Young Active Females. Balchem Inc, US.
3. May 2023 – Can a nutraceutical formulation targeted at the autophagy-lysosomal system improve muscle regeneration and exercise adaptations in skeletal muscle. 50/50 funded PhD studentship with Iovate Health Sciences Inc, Canada. (PI: Nathan Hodson).
4. April 2023 – The effects of the menstrual cycle on physiological, psychological and sport performance factors. VISF study for ADIDAS (PI: Kirsty Elliott-Sale).
5. September 2020 – Uplift to: The efficacy of a postpartum physical development programme. Women in Ground Close Combat Review Team, UK MOD.
6. March 2020 – The effects of beta-alanine supplementation on cardiac function and health. 50/50 funded PhD studentship with Natural Alternatives Inc, US.

Current PhD Supervisions

1. April 2023 – Investigating whether supraphysiological changes in oestrogen and progesterone affect aspects of physiology and athletic performance in cis-gendered women (Laura McTernan).
2. January 2023 – Musculoskeletal effects of exercise across the menopause transition (Nathan Lynskey).
3. October 2021 – Investigation of the anti-inflammatory actions of carnosine in metabolic Diseases (Joshua Awoke).
4. October 2020 – The effects of beta-alanine supplementation on cardiac function and health. (Jade Creighton).
5. January 2020 – The impact of low carbohydrate diets on bone health and (re)modelling in elite endurance athletes (Conor Raleigh).

Recent Invited / Keynote Lectures

1. Invited talk on “Implications of obesity treatment medications for musculoskeletal health” at the 72nd Annual Meeting of the American College of Sports Medicine (Atlanta, USA).
2. Invited talk on “Exercise as a modulator of bone growth and development” at the 72nd Annual Meeting of the American College of Sports Medicine (Atlanta, USA).
3. Invited talk on “Determining the bone metabolic response to exercise: what can bone markers tell us?” at the International Biochemistry of Exercise Conference (Limerick, Ireland, July 2024).
4. Invited Symposium lecture titled “Exercise Factors Influencing the Bone Health of Endurance Athletes” at the ECSS Congress (Glasgow, UK, July 2024).
5. Invited Highlighted Symposium lecture titled “Muscle and Bone Responses to Exercise Stress” at the 71st Annual Meeting of the American College of Sports Medicine (Boston, US, June 2024).
6. Invited talk on “How to strengthen the bone by diet and training” at the Leaders in Performance Conference XL (Papendal, Netherlands, September 2023).