Dr Hannah J. Thomas
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PROFESSIONAL EDUCATION

2017-21 **Doctor of Philosophy (PhD) in Exercise Physiology–** School of Human Sciences, the University of Western Australia, Perth, Western Australia, Australia **(Conferred 29th November 2021).**

2016 **First Class Honours in Exercise Physiology –** School of Psychology and Exercise Science, Murdoch University, Perth, Western Australia, Australia.

2012-15 **Bachelors of Exercise Physiology –** School of Psychology and Exercise Science, Murdoch University, Perth, Western Australia, Australia.

PUBLISHED REFEREED ARTICLES *(18 MANUSCRIPTS)* – H-INDEX 8 - *INDICATES JOINT FIRST AUTHORSHIP

1. Caddy HT, **Thomas HJ,** Kelsey LJ, Smith KJ, Doyle BJ, Green DJ. Comparison of transcranial Doppler ultrasound with computational fluid dynamics: responses to physiological stimuli. Biomech Model Mechanobiol. In press.
2. Way KL, **Thomas HJ**, Parker L, Maiorana A, Keske MA, Scott D, Reed JL, Howden E, Tieng J, Hackett D, Hawkins T, Latella C, Celermajer DS, Cordina R, Tran DL. Cluster sets to prescribe interval resistance training: A potential method to optimize resistance training safety, feasibility, and efficacy in cardiac patients. Sports Med Open. 2023; 9(86).
3. Green DJ, Marsh CE, **Thomas HJ**, Lester L, Scurrah KJ, Haynes A, Naylor LH. Exercise and artery function in twins: Sex differences in a cross-over trial. Hypertension. 2023; 80(6): 1343-52.
4. **Thomas HJ**, McKeegan K, Ang T, Morrison DJ, Keske MA, and Parker L. High-glucose ingestion and acute exercise elicit variable and individualized responses in systemic markers of redox homeostasis. Front Immunol. 2023; 14. doi.org/10.3389/fimmu.2023.1127088.
5. **Thomas HJ**, Marsh CE, Lester L, Maslen BA, Naylor LH, Green, DJ. Sex differences in cardiovascular risk factor responses to resistance and endurance training in younger subjects. Am J Physiol Heart Circ Physiol. 2023; 324(1): H67-78.
6. **Thomas HJ***, Marsh CE*, Maslen BA, Lester L, Naylor LH, Green, DJ. Endurance versus resistance training in treatment of cardiovascular risk factors: a randomized cross-over trial. PLOS ONE. 2022; 17(9): e0274082.
7. **Thomas HJ**, Marsh CE, Scurrah KJ, Naylor LH, Smith KJ, Green DJ. Studies of Twin Responses to Understand Exercise Therapy (STRUETH): Cerebrovascular function. J Physiol. 2022; 600(11): 2729-46.
8. Marsh CE, **Thomas HJ**, Naylor LH, Dembo LG, Scurrah KJ, Green DJ. Left ventricular adaptation to exercise training via MRI: Studies of Twin Responses to Understand Exercise Therapy (STRUETH). Med Sci Sports Exerc. 2022; 54(7): 1095-104.
9. **Thomas HJ,** March CE, Naylor LH, Ainslie PN, Smith KJ, Carter HH, Green DJ. Resistance, but not endurance training, induces changes in cerebrovascular function in healthy young subjects. Am J Physiol Heart Circ Physiol. 2021; 321(5): H881-92.
10. Marsh CE, **Thomas HJ**, Naylor LH, Dembo LG, Green DJ. Sex differences in cardiac adaptation to distinct modalities of exercise: A cardiac magnetic resonance study. Med Sci Sports Exerc. 2021; 53(12): 2543-52.
11. **Thomas HJ***, Marsh CE*, Maslen BA, Scurrah KJ, Naylor LH, Green DJ. Studies of Twin Responses to Understand Exercise Therapy (STRUETH): Body composition. Med Sci Sports Exerc. 2021; 53(1): 58-67.
12. **Thomas HJ,** Rana U, Marsh CE, Caddy HT, Kelsey LJ, Smith KJ, Green DJ, Doyle BJ. Assessment of cerebrovascular responses to physiological stimuli using computational fluid dynamics. J Appl Physiol. 2020; 129(5): 1024-32.
13. Marsh CE*, **Thomas HJ*,** Naylor LH, Scurrah KJ, Green DJ. Fitness and strength responses to distinct exercise modalities in twins: Studies of Twin Responses to Understand Exercise as a Therapy (STRUETH) study. J Physiol. 2020; 598(18): 3845-58.
14. Letter to the editor: Green DJ, Marsh CE, **Thomas HJ**, Naylor LH & Scurrah KJ. Exercise: One size does not fit all: authors' response. J Physiol. 2020; 598(18): 4131-2.

15. Marsh CE*, **Thomas HJ*,** Naylor LH, Green DJ. Exploring human trainability: Design and rationale of Studies of Twin Responses to Understand Exercise as a Therapy (STRUETH) study. Contemp Clin Trials Commun. 2020; 19: 100584.
16. Smith KJ, Suarez IM, Scheer A, Chasland LC, **Thomas HJ,** Correia MA, Dembo LG, Naylor LH, Maiorana AJ, Green DJ. Cerebral blood flow during exercise in heart failure: Effect of ventricular assist devices. Med Sci Sports Exerc. 2019; 51(7): 1372-9.
17. **Thomas HJ,** Scott BR, Peiffer JJ. Acute physiological responses to low-intensity blood flow restriction cycling. J Sci Med Sport. 2018; 21(9): 969-74.
18. Scott BR, Peiffer JJ, **Thomas HJ,** Marston KJ, Hill KD. Hemodynamic responses to low-load blood flow restriction and unrestricted high-load resistance exercise in older women. Front Physiol. 2018; 9: 1324.

KEYNOTE AND INVITED SPEAKING ENGAGEMENTS

1. Individualised prescription and responsiveness in health, fitness, and vascular function. Institute for Physical Activity and Nutrition (IPAN) seminar series. July 2022.
2. Resistance but not endurance exercise training induces changes in cerebrovascular function in healthy young subjects. Am J Physiol-Heart Circ Physiol Podcast episode. November 2021.
3. Assessment of cerebrovascular function in twins using multimodal imaging and computational fluid dynamics. Cerebral Blood Flow Virtual Seminar series. 2020.
4. Exploring sex differences in human exercise physiology: Current limitations and future research recommendations. Invited expert panel member for virtual journal club. The Physiological Society. November 2021.

RESEARCH FUNDING (*TOTAL FUNDED: $242,000)*

2023 **NHMRC equipment grant.** Equipment grant from NHMRC and the School of Exercise and Nutrition Sciences (SENS) Deakin University. **Chief-investigator.** $16k.

2023 **The Institute for Physical Activity and Nutrition seed funding grant.** Understanding the acute effects of exercise on brain blood vessel health in adults living with atrial fibrillation: a randomised cross-over design trial (BRAIN-EX study). **Co-Investigator.** $10k.

2023 **The Institute for Physical Activity and Nutrition seed funding grant.** Understanding current attitudes, perceptions, knowledge, and practices surrounding antioxidant supplementation and treatment for improving health and exercise and sports performance. **Co-Investigator.** $10k.

2023 **The Institute for Physical Activity and Nutrition seed funding grant.** The effects of antioxidants on vascular function and exercise capacity in peripheral artery disease. **Chief-investigator.** $10k.

2022 **School of Exercise and Nutrition Sciences equipment funding bid.** Capital equipment bid from Deakin University. $30k.

2022 **The Institute for Physical Activity and Nutrition seed funding grant.** The effects of antioxidants on vascular function and exercise capacity in peripheral artery disease. **Chief-investigator.** $15k.

2022 **The Institute for Physical Activity and Nutrition seed funding grant.** Bone and the transcriptome: Determining the role of osteocalcin in glucose homeostasis and chronic disease prevention. **Co-Investigator.** $15k.

2017-20 **Research Training Program Stipend and UWA Safety Net Top-up.** $30k per year – total $120k.

2017 **Exercise and Sport Science Australia Clinical Exercise Physiology Research Grant.** Impact of Distinct Exercise Modalities Cerebrovascular Function in Mono- and Dizygotic Twins. **Chief-investigator.** $16k.

AWARDS *(CUMULATIVE TOTAL: $14,350*)

2023 **The Institute for Physical Activity and Nutrition conference travel award** $3k.

2022 **The Institute for Physical Activity and Nutrition conference travel award** $2.2k.

2021 **Dean's list honourable mention for outstanding PhD thesis – University of Western Australia.**

2021 **Best Poster Presentation Award at the Exercise and Sport Science Australia Research to Practice Conference** $4k.

2018 **University of Western Australia Graduate Research School Travel Award** $1.85k.

2018 **Twins Research Australia Travel Grant** $800.

2017 **Best New Investigator Award in Exercise and Sport Science at the SMA Conference** $2k.

2015 **Certificate of Excellence in Exercise Physiology from Murdoch University** $500.