SangHoon (Andrew) Yoon, BSc, MSc

E-mail: sanghoon.yoon@autuni.ac.nz

Website: SangHoon Yoon
ORCID ID: 0000-0002-6654-7135
ResearchGate: SangHoon Yoon
Twitter/X: @SH_Andrew_Yoon

Peer-reviewed journal publications: 8

Research interests: cellular mechanisms of skeletal muscle fatigue (particularly high-intensity exercise), biomechanics and motor control of repetitive tasks (occupational work, exercise & sports), sex differences in neuromuscular fatigue mechanisms

I. CURRENT POSITIONS

Aug 2023 – **Teaching technician**

Present Faculty of Health & Environmental Science, Auckland University of

Technology, Auckland, New Zealand

June 2023 – *Co-postgraduate student advisor*

Present Faculty of Health & Environmental Science, Auckland University of

Technology, Auckland, New Zealand

Apr 2023 – Student representative

Present Sports Performance Research Institute New Zealand, Auckland, New

Zealand

Mar 2023 – *Teaching assistant*

Present Faculty of Health & Environmental Science, Auckland University of

Technology, Auckland, New Zealand

May 2023 – Research technician

Nov 2023 Sports Performance Research Institute New Zealand, Auckland, New

Zealand

II. PREVIOUS POSITIONS

Dec 2021 –	Project administrator

July 2022 Sylvan Adams Sports Science Institute, McGill University, Montreal,

Canada

May 2021 – **Research assistant**

Aug 2022 Biomechanics of Occupation and Sport Laboratory, McGill University,

Montreal, Canada

Feb 2020 –	Research assistant
Apr 2020	Institut National du Sport du Québec, Montreal, Canada
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Sept 2019 –	Research assistant
Dec 2019	Biomechanics of Occupation and Sport Laboratory, McGill University,
	Montreal, Canada

III. EDUCATION

Oct 2022 – TBD	Ph.D. Sport and Exercise ScienceHealth and Environmental SciencesAuckland University of Technology, Auckland, New Zealand
Jan 2020 – Aug 2021	M.Sc. Biomechanics and NeuroscienceDepartment of KinesiologyMcGill University, Montreal, Quebec, Canada
Sept 2015 – Apr 2019	B.Sc. Kinesiology (Honours) Department of Kinesiology McGill University, Montreal, Quebec, Canada
July 2018 – Nov 2018	Education Abroad School of Human Movement and Nutrition Sciences University of Queensland, Brisbane, Queensland, Australia

IV. AWARDS (\$CAD)

Oct 2022 – Sep 2025	Auckland University of Technology Doctoral Scholarships Auckland University of Technology	
May 2022 – Apr 2025	Postgraduate Scholarships – Doctoral Program Natural Science and Engineering Research Council of Canada (NSERC)	
May 2022 – Apr 2025	Canada Graduate Scholarships – Doctoral Program (Declined) Natural Science and Engineering Research Council of Canada (NSERC)	
	Offered to the highest-scored Postgraduate Scholarships-Doctoral (PGS-D) Program applicants. However, since it is only tenable at a Canadian institution, this scholarship was declined and PGS-D was accepted to pursue doctoral studies abroad (i.e., Auckland University of Technology).	
Apr 2021	PGSS Travel Award	

McGill University

Nov 2020	R. E. Wilkinson Award McGill University
May 2020 – Apr 2021	Canada Graduate Scholarships – Master's Program Natural Science and Engineering Research Council of Canada (NSERC)
Jan 2020	Graduate Excellence Award McGill University
May 2019 – Aug 2019	Undergraduate Student Research Award Natural Science and Engineering Research Council of Canada (NSERC)
May 2017 – Aug 2017	Adriano Tassone Internship Award McGill University

V. MENTORING

Date	Position	Name	Project title
July 2023 - Present	Work-Integrated Learning placement	Kosta Mills	N/A
Jan 2023 – Present	Co-Operative Work Placement	Evana Main	Investigating the lack of female participants in exercise science research
Nov 2022 – May 2023	Summer Studentship	Harrison Dudley- Rode	Improving exercise prescription in the supramaximal intensity domain in cyclists
May 2021 – Aug 2022	Summer Internship/ Research Practicum/ Honours	Lauren Cederbaum	Sex-specific lower limb muscle activity coordination during high-intensity exercise
Sept 2020 – Dec 2020	Research Practicum	Luke Spagnuolo	Sex differences in muscle fatigue during the reverse motion of a repetitive pointing task
May 2020 – Aug 2020	Summer Internship	Shayan Kerr	Sex-specific effects of repetitive motion- induced neck/shoulder fatigue on muscle deoxygenation and perceived exertion

VI. PUBLISHED RESEARCH CONTRIBUTIONS

- a. Peer-reviewed Scientific Journal Publications (published, in press, accepted)
- 1. **Yoon, S.**, Cederbaum, L.A., Côté, J.N. (2023). Females show less decline in contractile function than males after repeated all-out cycling. *Applied Physiology, Nutrition and Metabolism*. https://doi.org/10.1139/apnm-2023-0184

2. Cederbaum, L.A., **Yoon, S.**, Côté, J.N. (2023). Sex-specific neuromuscular coordination strategies of the quadriceps during fatiguing repeated sprint exercise. Accepted: Frontiers in Sports and Active Living. *Frontiers in Sports and Active Living*, 5. https://doi.org/10.3389/fspor.2023.1248303

- 3. Lamanuzzi, S., Gill, G., **Yoon, S.**, Renda, E., Côté, J.N. (2022). Effects of anti-fatigue lenses on performance, muscle activity and subjective discomfort responses during a seated computer task. *Applied Ergonomics*. 109, 103964. https://doi.org/10.1016/j.apergo.2023.103964
- 4. **Yoon, S.**, Bailey, C. A., Côté, J. N. (2022). Sex-specific muscle activation and oxygenation kinetics during a repetitive forward pointing task. *Applied Physiology, Nutrition, and Metabolism.* 0, 1-15. https://doi.org/10.1139/apnm-2021-0664
- 5. **Yoon, S.**, Lefrançois-Daignault, T., Côté, J. N. (2021). The effect of cycling while typing on patterns of upper body muscle activation. *Human Factors*, 0, 1-15. https://doi.org/10.1177/00187208211022147
- 6. **Yoon, S.**, Bailey, C. A., Cohen, N. R., Côté, J. N. (2021). Changes in muscle activation, oxygenation, and morphology following a fatiguing repetitive forward reaching task in young adult males and females. *Journal of Electromyography and Kinesiology*, 59, 102564. https://doi.org/10.1016/j.jelekin.2021.102564
- 7. Bailey, C.A., **Yoon, S.**, Côté, J. N. (2021). Relative variability in muscle activation amplitude, muscle oxygenation, and muscle thickness: Changes with dynamic low-load elbow flexion fatigue and relationships in young and older females. *Journal of Electromyography and Kinesiology*, 59, 102553. https://doi.org/10.1016/j.jelekin.2021.102553
- 8. **Yoon, S.**, Lefrançois-Daignault, T., Côté, J. N. (2019). Effects of cycling while typing on upper limb and performance characteristics. *Applied Ergonomics*, 80, 161-167. https://doi.org/10.1016/j.apergo.2019.05.015

b. Manuscripts submitted and currently in review or in advanced stage of preparation

- 1. Amdi, C.H., Refalo, M.C., **Yoon, S.**, Hunter, S., Fyfe, J.J. (2023). The influence of biological sex on neuromuscular fatigue during and following resistance training in resistance-trained individuals: a scoping review. In preparation for submission.
- 2. **Yoon, S.**, Bailey, C.A., Côté, J.N. (2023). Influence of biological sex on fatigue-related adjustments in muscle activation, oxygenation, and thickness in a repetitive elbow flexion task. In Preparation for submission.
- 3. Usselman, C., Gibbs, J., Duncan, L., Côté, J.N., Saboune, J., **Yoon, S.**, Herrik, S. Kinesiology research as an interdisciplinary approach to address sex/gender issues of physical activity, exercise and health. In preparation for submission as an invited paper in special issue "Sex, Gender and Health", in International Journal of Environmental Research and Public Health.

c. Abstracts published in conference proceedings

1. **Yoon, S.**, Cederbaum, L.A., Côté, J.N. Central motor drive plateaus at similar sprint repetition in females and males during repeated bouts of all-out cycling. 2022 International Society of Electrophysiology and Kinesiology Congress, Québec City, Quebec, Canada, 2022. Declined.

- 2. **Yoon, S.**, Cederbaum, L.A., Côté, J.N. Does adjusting for mechanical work affect sex differences in peripheral and central fatigue during repeated sprints? Proceedings of the Canadian Society for Exercise Physiology Annual General Meeting Zooming into the Future: Exercise Science in the Virtual Age. Virtual, 2021.
- 3. **Yoon, S.**, Bailey, C.A., Cohen, N., Côté, J.N. Changes in muscle activation, morphology, and oxygenation following a fatiguing forward repetitive pointing task in young adult males and females. Centre for Interdisciplinary Research in Rehabilitation of Greater Montreal Scientific Congress Proceedings of Catalyst of Innovation for Tomorrow's Rehabilitation, Montreal, Quebec, Canada, 2021.
- 4. **Yoon, S.**, Bailey, C.A., Cohen, N., Côté, J.N. Changes in muscle activation, morphology, and oxygenation following a fatiguing forward repetitive pointing task in young adult males and females. Proceedings of the 21st Biennial Meeting of the Canadian Society for Biomechanics. Montreal, Quebec, Canada, 2021.
- 5. Bailey, C.A., **Yoon, S.**, Côté, J.N. Effect of dynamic elbow flexion fatigue on muscle activation, oxygenation, and thickness in young adult males and females. Proceedings of the 21st Biennial Meeting of the Canadian Society for Biomechanics. Montreal, Quebec, Canada, 2021.
- 6. Bailey, C.A., **Yoon, S.**, Côté, J.N. Are changes in muscle activation variability related to muscle deoxygenation and swelling during elbow flexion fatigue in young adult males and females? Proceedings of the 21st Biennial Meeting of the Canadian Society for Biomechanics. Montreal, Quebec, Canada, 2021.

d. Non-published Conference Presentations

- 1. **Yoon, S.**, Dick, T., Tucker, K. In vivo neuromotor and biomechanical variability of vastus lateralis and vastus medialis obliquus with submaximal contraction in people with no knee pain. Biomedical Science Research Skills & Research Project oral and poster presentation, Brisbane, Queensland, Australia, 2018.
- 2. **Yoon, S.**, Lefrançois-Daignault, T., Côté, J. N. Sex-specific effects of leg cycle ergometry on shoulder blood flow and sensitivity during computer work. 13th Annual Faculty of Science Undergraduate Research Conference, Montreal, Quebec, Canada, 2017.

VII. SCIENTIFIC MANUSCRIPT REVIEWS (# of reviews)

Clinical Oral Investigations (1); Scientific Reports – Nature (1); International Journal of Industrial Ergonomics (1)

VIII. QUALIFICATIONS

First aid Oct 2022 –

Oct 2024

Mar 2023 Peripheral IV cannulation & Phlebotomy

Te Whatu Ora – Health New Zealand

IX. **EXTRACURRICULAR ACTIVITIES**

Oct 2022 – May 2023	Unified sport coach Special Olympics Greenhithe, New Zealand
Dec 2018 – Dec 2021	Program coordinator / Unified sport coach Special Olympics Quebec, Montreal, Canada
Sept 2016 – Apr 2018	Director of events 5 Days for the Homeless, McGill University, Montreal, Canada
Sept 2016 – Apr 2018	President McGill MMA and BJJ Club, McGill University, Montreal, Canada