SangHoon (Andrew) Yoon, *BSc*, *MSc*

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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

Mar 2025 – Present
Teaching assistant
SPSC605 – Exercise Physiology | SPSC502 – Exercise Physiology 1
Faculty of Health & Environmental Science, Auckland University of Technology, Auckland, New Zealand

June 2023 – Present
Co-postgraduate student advisor
Faculty of Health & Environmental Science, Auckland University of Technology, Auckland, New Zealand

Apr 2023 – Present
Co-student representative
Sports Performance Research Institute New Zealand, Auckland, New Zealand

Mar 2023 – Present
Teaching assistant
Faculty of Health & Environmental Science, Auckland University of Technology, Auckland, New Zealand

II. PREVIOUS POSITIONS

July 2024 – Nov 2024	***Lecturer*** *HEAL505 - Human Anatomy and Physiology 1* Faculty of Health & Environmental Science, Auckland University of Technology, Auckland, New Zealand
Aug 2023 – Dec 2024	***Teaching technician*** Faculty of Health & Environmental Science, Auckland University of Technology, Auckland, New Zealand
Feb 2023 –	***Teaching Assistant***

June 2023	*SPOR608 – Evidence Based Practice | SPSC605 – Exercise Physiology* Faculty of Health & Environmental Science, Auckland University of Technology, Auckland, New Zealand
May 2023 – Nov 2023	***Research technician*** Sports Performance Research Institute New Zealand, Auckland, New Zealand
Dec 2021 – July 2022	***Project administrator*** Sylvan Adams Sports Science Institute, McGill University, Montreal, Canada
May 2021 – Aug 2022	***Research assistant*** Biomechanics of Occupation and Sport Laboratory, McGill University, Montreal, Canada
Feb 2020 – Apr 2020	***Research assistant*** Institut National du Sport du Québec, Montreal, Canada
Sept 2019 – Dec 2019	***Research assistant*** Biomechanics of Occupation and Sport Laboratory, McGill University, Montreal, Canada

III. EDUCATION

Oct 2022 – TBD
Ph.D. Sport and Exercise Science
Health and Environmental Sciences
Auckland University of Technology, Auckland, New Zealand

Jan 2020 – Aug 2021
M.Sc. Biomechanics and Neuroscience
Department of Kinesiology
McGill 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)

Nov 2024 **The Community Champion Award**
Auckland University of Technology

For postgraduate student(s) who strengthen our research community through meaningful peer support and collaboration, fostering an environment where others can thrive.

Oct 2022 – Sep 2025 **Auckland University of Technology Doctoral Scholarships**
Auckland University of Technology
Value: $60,000.00 + tuition/fees ($17,000.00)

Due to holding another full PhD Scholarship (i.e., NSERC; below), the scholarship value was reduced to $28,500.00 + tuition/fees ($17,000.00).

May 2022 – Apr 2025 **Postgraduate Scholarships – Doctoral Program**
Natural Science and Engineering Research Council of Canada (NSERC)
Value: $63,000.00

May 2022 – Apr 2025 **Canada Graduate Scholarships – Doctoral Program (Declined)**
Natural Science and Engineering Research Council of Canada (NSERC)
Value: $105,000.00

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
Value: $160.00

Nov 2020 **R. E. Wilkinson Award**
McGill University
Value: $800.00

May 2020 – Apr 2021 **Canada Graduate Scholarships – Master's Program**
Natural Science and Engineering Research Council of Canada (NSERC)
Value: $17,500.00

Jan 2020 **Graduate Excellence Award**
McGill University
Value: $5,500.00

May 2019 – Aug 2019 **Undergraduate Student Research Award**
Natural Science and Engineering Research Council of Canada (NSERC)
Value: $5,625.00

May 2017 – Aug 2017	**Adriano Tassone Internship Award** McGill University Value: $4,000.00

V. MENTORING

Date	Position	Name	Project title
Jan 2024 – **Present**	Master's student	Evana Main	The effect of lowered muscle glycogen on power output at intensity domain transitions in endurance-trained females
July 2023 – Nov 2024	WIL placement, Co-Operative Work Placement	Kosta Mills	Determining a protocol to assess muscle excitability changes during fatiguing cycling
Jan 2023 – Nov 2023	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. (2025). Biological sex differences in fatigue in resistance-trained individuals: A scoping review. *Int J Sports Med.* Under revision (Revise & Resubmit).
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 (2); International Journal of Industrial Ergonomics (1)

VIII. QUALIFICATIONS

Oct 2022 – Oct 2024	**First aid**
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