
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

July 2024 – Present	<i>Lecturer</i> <i>HEAL505 - Human Anatomy and Physiology 1</i> Faculty of Health & Environmental Science, Auckland University of Technology, Auckland, New Zealand
Aug 2023 – Present	<i>Teaching technician</i> Faculty of Health & Environmental Science, Auckland University of Technology, Auckland, New Zealand
June 2023 – Present	<i>Co-postgraduate student advisor</i> Faculty of Health & Environmental Science, Auckland University of Technology, Auckland, New Zealand
Apr 2023 – Present	<i>Co-student representative</i> Sports Performance Research Institute New Zealand, Auckland, New Zealand
Mar 2023 – Present	<i>Teaching assistant</i> Faculty of Health & Environmental Science, Auckland University of Technology, Auckland, New Zealand

II. PREVIOUS POSITIONS

May 2023 – Nov 2023	<i>Research technician</i> Sports Performance Research Institute New Zealand, Auckland, New Zealand
Dec 2021 – July 2022	<i>Project administrator</i>

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

Sept 2019 – ***Research assistant***
Dec 2019 Biomechanics of Occupation and Sport Laboratory, McGill University, Montreal, Canada

III. EDUCATION

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

Jan 2020 – ***M.Sc. Biomechanics and Neuroscience***
Aug 2021 Department of Kinesiology
McGill University, Montreal, Quebec, Canada

Sept 2015 – ***B.Sc. Kinesiology (Honours)***
Apr 2019 Department of Kinesiology
McGill University, Montreal, Quebec, Canada

July 2018 – ***Education Abroad***
Nov 2018 School of Human Movement and Nutrition Sciences
University of Queensland, Brisbane, Queensland, Australia

IV. AWARDS (\$CAD)

Oct 2022 – **Auckland University of Technology Doctoral Scholarships**
Sep 2025 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 – **Postgraduate Scholarships – Doctoral Program**
Apr 2025 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	<i>TBD</i>
July 2023 - Present	WIL placement, Co-Operative Work Placement	Kosta Mills	<i>TBD</i>
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. (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

Oct 2022 – **First aid**
Oct 2024

Mar 2023 **Peripheral IV cannulation & Phlebotomy**
Te Whatu Ora – Health New Zealand

IX. EXTRACURRICULAR ACTIVITIES

Oct 2022 – **Unified sport coach**
May 2023 Special Olympics Greenhithe, New Zealand

Dec 2018 – **Program coordinator / Unified sport coach**
Dec 2021 Special Olympics Quebec, Montreal, Canada

Sept 2016 – **Director of events**
Apr 2018 5 Days for the Homeless, McGill University, Montreal, Canada

Sept 2016 – **President**
Apr 2018 McGill MMA and BJJ Club, McGill University, Montreal, Canada