

SangHoon (Andrew) Yoon, *BSc, MSc*

PERSONAL INFORMATION

Position: *PhD student* at Auckland University of Technology

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Peer-reviewed journal publications: 5

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. PREVIOUS POSITIONS

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

II. 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	<i>B.Sc. Kinesiology (Honours)</i> Department of Kinesiology McGill University, Montreal, Quebec, Canada
July 2018 – Nov 2018	<i>Education Abroad</i> School of Human Movement and Nutrition Sciences University of Queensland, Brisbane, Queensland, Australia

III. AWARDS

Oct 2022 – Sep 2025	Auckland University of Technology Doctoral Scholarships Auckland University of Technology Value: \$60,000.00 + 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
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
May 2017 – Aug 2017	Adriano Tassone Internship Award McGill University

Value: \$4,000.00

IV. MENTORING

Date	Position	Name	Title
May 2021 – Present	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

V. PUBLISHED RESEARCH CONTRIBUTIONS

a. Peer-reviewed Scientific Journal Publications (published, in press, accepted)

1. **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>
2. **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>
3. **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>
4. 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>
5. **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. Lamanuzzi, S., Gill, G., **Yoon, S.**, Renda, E., Côté, J.N. (2022). Sex-Specific Effects of Anti-Fatigue Lens Wear on Musculoskeletal Characteristics during a Seated Computer Task in University Students. Manuscript submitted to *Applied Ergonomics*.
2. **Yoon, S.**, Cederbaum, L.A., Côté, J.N. (2022). Females show less peripheral fatigue after repeated all-out cycling despite accounting for total mechanical work. Manuscript submitted to *Medicine & Science in Sports & Exercise*.
3. **Yoon, S.**, Bailey, C.A., Côté, J.N. (2022). Influence of biological sex on fatigue-related adjustments in muscle activation, oxygenation, and thickness in a repetitive elbow flexion task. In Preparation for submission to *Journal of Electromyography and Kinesiology*.
4. Cederbaum, L.A., **Yoon, S.**, Côté, J.N. (2022). Sex-specific neuromuscular coordination strategies of the quadriceps during fatiguing repeated sprint exercise. In preparation for submission to *Journal of Electromyography and Kinesiology*.
5. 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.

VI. SCIENTIFIC MANUSCRIPT REVIEWS (# of reviews)

Clinical Oral Investigations (1); Scientific Reports – Nature (1)

VII. EXTRACURRICULAR ACTIVITIES

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