

SangHoon (Andrew) Yoon, *BSc, MSc*

PERSONAL INFORMATION

Positions: Research assistant: Biomechanics of Occupation and Sport Laboratory, McGill University, Montreal, Canada

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Peer-reviewed journal publications: 4

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

Feb 2020 – *Research assistant*
Apr 2020 Institut National du Sport du Québec, Montreal, Canada
Tested the validity and reliability of a novel Judo fitness test in collaboration with Judo Canada; Manuscript in preparation.

Sept 2019 – *Research assistant*
Dec 2019 Biomechanics of Occupation and Sport Laboratory, McGill University, Montreal, Canada
Assisted with research design conceptualization, data acquisition/analysis, statistical analysis, and manuscript writing.

II. EDUCATION

Jan 2020 – *M.Sc. Biomechanics and Neuroscience*
Aug 2021 Department of Kinesiology
McGill University, Montreal, Quebec, Canada
Thesis: Sex-specific muscle activation and oxygenation kinetics during a repetitive forward pointing task.
Supervisor: JN Côté

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

Thesis: Sex differences in fatigability, neuromuscular activity, and muscle swelling in response to repetitive motion induced fatigue.

Supervisor: JN Côté

July 2018 –
Nov 2018

Education Abroad

School of Human Movement and Nutrition Sciences

University of Queensland, Brisbane, Queensland, Australia

SCIE3220 Research Report: In vivo neuromotor and biomechanical measures of vastus lateralis and vastus medialis during submaximal contraction in people with no knee pain.

Supervisors: K Tucker, T Dick

III. AWARDS

Nov 2020

R. E. Wilkinson Award

McGill University

May 2020 –
Apr 2021

Canada Graduate Scholarship – 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

McGill University

IV. MENTORING

Date	Position	Name	Title
May 2021 – Present	Undergrad. Summer Internship	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	Undergrad. 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.**, Lefrançois-Daignault, T., Côté, J. N. (2021). The effect of cycling while typing on patterns of upper body muscle activation. *Human Factors*, <https://doi.org/10.1177/00187208211022147>
2. **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>
3. 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>
4. **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. **Yoon, S.**, Bailey, C.A., Côté, J.N. (2021). Sex-specific muscle activation and oxygenation kinetics during a repetitive forward pointing task. *Submitted to Applied Physiology, Nutrition, and Metabolism*.
2. **Yoon, S.**, Cederbaum, L.A., Côté, J.N. (2021). Sex differences in peripheral and central fatigue during repeated all-out cycling after adjusting for total mechanical work. In preparation for submission to *Medicine & Science in Sports & Exercise*.

c. Abstracts published in conference proceedings

1. **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.
2. **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.

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. Proceedings of the 21st Biennial Meeting of the Canadian Society for Biomechanics. Montreal, Quebec, Canada, 2021.
4. 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.
5. 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.