

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

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### Peer-reviewed journal publications: 9

**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 2025 –<br>Present  | <b><i>Research technician</i></b><br>Sports Performance Research Institute New Zealand, Auckland, New Zealand  |
| June 2023 –<br>Present | <b><i>Co-postgraduate student advisor</i></b><br>Faculty of Health & Environmental Science, Auckland University of Technology, Auckland, New Zealand |
| Apr 2023 –<br>Present  | <b><i>Co-student representative</i></b><br>Sports Performance Research Institute New Zealand, Auckland, New Zealand                                  |

### II. PREVIOUS POSITIONS

|                         |  |
|-------------------------|--|
| July 2024 –<br>Nov 2024 | <b><i>Lecturer</i></b><br>HEAL505 (Human Anatomy and Physiology 1)<br><br>Faculty of Health & Environmental Science, Auckland University of Technology, Auckland, New Zealand  |
| Aug 2023 –<br>Dec 2024  | <b><i>Teaching technician</i></b><br>Faculty of Health & Environmental Science, Auckland University of Technology, Auckland, New Zealand   |
| Feb 2023 –<br>June 2025 | <b><i>Teaching Assistant</i></b><br>SPOR608 (Evidence Based Practice), SPSC605 (Exercise Physiology 2), SPSC502 (Exercise Physiology 1)<br><br>Faculty of Health & Environmental Science, Auckland University of Technology, Auckland, New Zealand |
| May 2023 –<br>Nov 2023  | <b><i>Research technician</i></b><br>Sports Performance Research Institute New Zealand, Auckland, New Zealand  |

|                         |   |
|-------------------------|---|
| Dec 2021 –<br>July 2022 | <b><i>Project administrator</i></b><br>Sylvan Adams Sports Science Institute, McGill University, Montreal,<br>Canada        |
| May 2021 –<br>Aug 2022  | <b><i>Research assistant</i></b><br>Biomechanics of Occupation and Sport Laboratory, McGill University,<br>Montreal, Canada |
| Feb 2020 –<br>Apr 2020  | <b><i>Research assistant</i></b><br>Institut National du Sport du Québec, Montreal, Canada                                  |
| Sept 2019 –<br>Dec 2019 | <b><i>Research assistant</i></b><br>Biomechanics of Occupation and Sport Laboratory, McGill University,<br>Montreal, Canada |

### III. EDUCATION

|                         |   |
|-------------------------|---|
| Oct 2022 –<br>TBD       | <b><i>Ph.D. Sport and Exercise Science</i></b><br>Health and Environmental Sciences<br>Auckland University of Technology, Auckland, New Zealand |
| Jan 2020 –<br>Aug 2021  | <b><i>M.Sc. Biomechanics and Neuroscience</i></b><br>Department of Kinesiology<br>McGill University, Montreal, Quebec, Canada                   |
| Sept 2015 –<br>Apr 2019 | <b><i>B.Sc. Kinesiology (Honours)</i></b><br>Department of Kinesiology<br>McGill University, Montreal, Quebec, Canada                           |
| July 2018 –<br>Nov 2018 | <b><i>Education Abroad</i></b><br>School of Human Movement and Nutrition Sciences<br>University of Queensland, Brisbane, Queensland, Australia  |

### IV. AWARDS (\$CAD)

|            |   |
|------------|---|
| Nov 2024   | <b>The Community Champion Award</b><br>Auckland University of Technology<br><br><i>For postgraduate student(s) who strengthen our research community through meaningful peer support and collaboration, fostering an environment where others can thrive.</i> |
| Oct 2022 – | <b>Auckland University of Technology Doctoral Scholarships</b>  |

|                        |  |
|------------------------|--|
| Sep 2025               | Auckland University of Technology  |
|                        | <i>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).</i>  |
| May 2022 –<br>Apr 2025 | <b>Postgraduate Scholarships – Doctoral Program</b><br>Natural Science and Engineering Research Council of Canada (NSERC)  |
| May 2022 –<br>Apr 2025 | <b>Canada Graduate Scholarships – Doctoral Program (Declined)</b><br>Natural Science and Engineering Research Council of Canada (NSERC)  |
|                        | <i>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).</i> |
| Apr 2021               | <b>PGSS Travel Award</b><br>McGill University  |
| Nov 2020               | <b>R. E. Wilkinson Award</b><br>McGill University  |
| May 2020 –<br>Apr 2021 | <b>Canada Graduate Scholarships – Master’s Program</b><br>Natural Science and Engineering Research Council of Canada (NSERC)   |
| Jan 2020               | <b>Graduate Excellence Award</b><br>McGill University  |
| May 2019 –<br>Aug 2019 | <b>Undergraduate Student Research Award</b><br>Natural Science and Engineering Research Council of Canada (NSERC)  |
| May 2017 –<br>Aug 2017 | <b>Adriano Tassone Internship Award</b><br>McGill University   |

## V. MENTORING

| Date                    | Position                                   | Name        | Project title  |
|-------------------------|--|-------------|--|
| Jan 2024 –<br>Aug 2025  | Master’s student                           | Evana Main  | The effect of lowered carbohydrate availability on power output at the intensity domain transitions in endurance trained females |
| July 2023 –<br>Nov 2024 | WIL placement, Co-Operative Work Placement | Kosta Mills | Determining a protocol to assess muscle excitability changes during fatiguing cycling  |

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

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## VI. PUBLISHED RESEARCH CONTRIBUTIONS

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

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*. <https://doi.org/10.1055/a-2563-9449>
2. **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>
3. 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>
4. 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>
5. **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>
6. **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>
7. **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>

8. 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>
9. **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. Jackson, A., Sheerin, K., **Yoon, S.**, Wyatt, H., Reid, D., Carroll, MR (2025). The Immediate Effect of Lateral Wedging on First Metatarsophalangeal Joint Kinematics and Centre of Pressure. *Submitted to Gait & Posture*.

**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. 13<sup>th</sup> 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 – **First aid**  
Oct 2025

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