Curriculum Vitae

John W. Wannop

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NATIONALITY: Canadian **DATE OF BIRTH:** June 7, 1983

EDUCATION/EXPERIENCE

2017- Adjunct Assistant Professor

2012- Consultant
Sport Insight Inc.

2012-2016 Post-Doctoral Fellow
University of Calgary, Calgary, Canada
Specialization: Biomechanics Supervisor: Darren Stefanyshyn

2007-2012 Doctor of Philosophy (Ph.D.) in Kinesiology
University of Calgary, Calgary, Canada
Specialization: Biomechanics Supervisor: Darren Stefanyshyn
Thesis: Footwear Traction and Lower Extremity Non-Contact Injury

2001-2005 Bachelor of Kinesiology (B.Kin) in Biomechanics – With Distinction
University of Calgary, Calgary, Canada

PROFESSIONAL MEMBERSHIPS

International Society of Biomechanics

Footwear Biomechanics Group - International Society of Biomechanics Technical Group

American College of Sports Medicine

PROFESSIONAL EXPERIENCE

2013 Guest Lecturer – Kinesiology 213: Intro to Research in Kinesiology (100 students)

2013 Guest Lecturer – Kinesiology 463: Advanced Biomechanics (10 students)

2012 Guest Lecturer – Kinesiology 463: Advanced Biomechanics (5 students)

2012 Guest Lecturer – Kinesiology 263: Introductory Biomechanics (160 students)

2007 - 2012 Teaching Assistant – Kinesiology 263: Introductory Biomechanics

2011 Executive Vice President (Ph. D.) Kinesiology Graduate Student Association

2011 Guest Lecturer – Kinesiology 263: Introductory Biomechanics (170 students)

2011 Guest Lecturer – Kinesiology 463: Advanced Biomechanics (8 students)

2010 Guest Lecturer – Kinesiology 263: Introductory Biomechanics (180 students)

2009 Guest Lecturer – Kinesiology 263: Introductory Biomechanics (180 students)

2005 Research Assistant – Human Performance Laboratory, University of Calgary, Canada

SERVICE EXPERIENCE

2019- **Awards Chair**
Footwear Biomechanics Group- International Society of Biomechanics Technical Group

2019 **Coordinator**
2019 Footwear Biomechanics Symposium – Kananaskis, Alberta, Canada

2013-2019 **Informatics Officer**
Footwear Biomechanics Group- International Society of Biomechanics Technical Group

REFEREED PUBLICATIONS

1. Fukuchi, C.A., Vogel, A., Stefanyshyn, D.J., **Wannop, J.W.** (2023). Effect of carbon-fiber plate footwear during uphill and downhill trail running on segment acceleration and plantar pressure using wearable technology. Submitted. Sport Science for Health.
2. Ruschkowski, J., Varughese, J., Stefanyshyn, D.J., **Wannop, J.W.** (2023). Influence of infill depth and fibre height of artificial turf on rotational traction. Submitted. Sports Engineering.
3. Durante, G., Clermont, C., Barrons, Z., Fukuchi, C.A., Stefanyshyn, D.J., **Wannop, J.W.** (2023). The influence of forefoot bending stiffness on running economy and biomechanics in male and female runners. Footwear Science. Submitted.
4. **Wannop, J.W.**, Kowalchuk, S., Emith, E., Aldahir, P., Spratley, E.M., O'Cain, C.M., Park, G. Stefanyshyn, D.J. (2023). Influence of sport surface properties on performance and perception of American football players. Submitted. Journal of Sport and Health Science.
5. **Wannop, J.W.**, Kowalchuk, S., Emith, E., Aldahir, P., Spratley, E.M., O'Cain, C.M., Park, G. Stefanyshyn, D.J. (2023). Influence of sport surface properties on utilized traction and lower extremity biomechanics of American football players. Submitted. Journal of Sport and Health Science.
6. Esposito, M., **Wannop, J.W.**, Thompsett, B., Miles, H., Stefanyshyn, D. (2023). Effects of increased forefoot bending stiffness on performance and metatarsophalangeal joint biomechanics in soccer. Submitted. Sports Biomechanics.
7. Trama, R. **Wannop, J.W.**, Smith, E., Stefanyshyn, D. (2023). The influence of midsole horizontal and vertical deformation on soft tissue vibrations and bone acceleration during running. Journal of Sports Science. https://doi.org/10.1080/02640414.2023.2259208
8. Barrons, Z.B., **Wannop, J.W.**, Stefanyshyn, D.J. (2023). The influence of footwear midsole thickness on running economy and frontal plane ankle stability. Footwear Science, 15(3), 155-160. https://doi.org/10.1080/19424280.2023.2218321

9. **Wannop, J.W.**, Schrier, N., Worobets, J.T., Stefanyshyn, D.J. (2023). Influence of forefoot bending stiffness on American football performance and metatarsophalangeal joint bending angle. Sports Biomechanics, 22(5), 704-714. https://doi.org/10.1080/14763141.2020.1750682
10. Nigg, B.M., Nigg, S., Hoitz, F., Subramanium, A., Vienneau, J., **Wannop, J.W.**, Khassetarash, A., Alizadeh, A., Matijevich, E., Edwards, W.B., Mohr, M. (2023). Highlighting the present state of biomechanics in shoe research (2000-2023). Footwear Science. 15(2), 133-143. https://doi.org/10.1080/19424280.2023.2209044
11. Clermont, C., Barrons, Z., **Wannop, J.W.**, Esposito, M., Stefanyshyn, D. (2022). Influence of midsole shear on running smoothness and performance with a 3D printed midsole. Sports Biomechanics, 22(3), 410-421. https://doi.org/10.1080/14763141.2022.2029936
12. **Wannop, J.W.**, Schrier, N., Wolter, M-L., Madden, R., Barrons, Z., Stefanyshyn, D.J. (2023). Changes in joint power and energetics during a sport-specific jumping fatigue protocol. Applied Sciences 13, 1231. https://doi.org/10.3390/app13031231
13. Barrons, Z., Stefanyshyn, D.J., **Wannop, J.W.** (2023). The traction requirements of female and male basketball players. Footwear Science, 15(1), 28-34. https://doi.org/10.1080/19424280.2022.2141899
14. Singh, P., Esposito, M., Barrons, Z., Clermont, C., **Wannop, J.W.**, Stefanyshyn, D. (2022). Utilizing data from a local positioning system as input into a neural network to determine stride length. Sports Engineering. Sports Engineering, 25(1), 1-9. https://doi.org/10.1007/s12283-022-00383-4
15. Thomson, A., Holmes, W., Hodge, E., Paul, D., Bleakley, C., **Wannop, J.W.** (2022). Rotational traction of soccer football boots on hybrid reinforced turf system and natural grass. Footwear Science, 14(1), 58-69. https://doi.org/10.1080/19424280.2022.2038690
16. Schrier, N., **Wannop, J.W.**, Worobets, J.T., & Stefanyshyn, D.J. (2022). Influence of compliance and aging of artificial turf surfaces on lower extremity joint loading. Biomechanics, 2(1), 66-75. https://doi.org/10.3390/biomechanics2010007
17. Esposito, M, **Wannop, J.W.**, & Stefanyshyn, D.J. (2022). Effects of midsole cushioning stiffness on Achilles tendon stretch during running. Scientific Reports, 12, 4193. https://doi.org/10.1038/s41598-022-07719-x
18. Thomson, A., **Wannop, J.W.**, Okholm, K. (2021). Hey Coach/Doctor/Physio/Podiatrist/Dad/Mum: What football boot is best for me? Apetar Sports Medicine Journal, 75, 268-272.
19. Firminger, CR., Haider, IT., Bruce, OL., **Wannop, J.W.**, Stefanyshyn, D.J., & Edwards, W.B. (2021). Are subject-specific models necessary to predict patellar tendon fatigue life? A finite element modelling study. Computer Methods in Biomechanics and Biomedical Engineering, 25(7), 729-739. https://doi.org/10.1080/10255842.2021.1975683
20. Singh, P., Esposito, M., Barrons, Z., Clermont, C., **Wannop, J.**, & Stefanyshyn, D. (2021). Measuring gait velocity and stride length with an ultrawide bandwidth local positioning system and an inertial measurement unit. Sensors, 21(9), 2896. https://doi.org/10.3390/s21092896
21. **Wannop, J.**, Kowalchuk, S., Esposito, M., & Stefanyshyn, D. (2020). Influence of Artificial Turf Surface Stiffness on Athlete Performance. Life, 10(12), 340. https://doi.org/10.3390/life10120340
22. Bruce, O.L., Firminger, C.R., **Wannop, J.W.**, Stefanyshyn, D.J., Edwards, W.B. (2019). Effects of basketball court construction and shoe stiffness on countermovement jump landings. Footwear Science, 11(3), 171-179. https://doi.org/10.1080/19424280.2019.1668867

23. **Wannop, J.W.,** Nigg, S., Edwards, W.B. (2019). From Canmore to Kananaskis: where has the last 20 years in footwear science brought us? Footwear Science 11(S1), S1-S2. https://doi.org/10.1080/19424280.2019.1606348
24. Firminger, C.R., Bruce, O.L., **Wannop, J.W.**, Stefanyshyn, D.J., Edwards, W.B. (2019). Effect of shoe and surface stiffness on lower limb tendon strain in jumping. Medicine & Science in Sport & Exercise, 51(9), 1895-1903. https://doi.org/10.1249/MSS.0000000000002004
25. **Wannop, J.W.**, Foreman, T., Madden, R., Stefanyshyn, D.J. (2019). Influence of the composition of artificial turf on rotational traction and athlete biomechanics. Journal of Sports Science, 37(16), 1849-1856. https://doi.org/10.1080/02640414.2019.1598923
26. **Wannop, J.W**., Stefanyshyn, D.J., Anderson, R., Coughlin, M., Kent, R. (2019) Development of a footwear sizing system in the National Football League. Sports Health, 11(1), 40-46. https://doi.org/10.1177/1941738118789402
27. Lewinson, R.T., Madden, R., Killick, A., **Wannop J.W.**, Wiley, E.P., Lun, V.M.Y., Patel, C., LaMothe, J.M., Stefanyshyn, D.J. (2018). Foot structure and knee joint kinetics during walking with and without wedged footwear insoles. Journal of Biomechanics, 73, 192-200. https://doi.org/10.1016/j.jbiomech.2018.04.006
28. **Wannop, J.W.**, Madden, R.M., & Stefanyshyn, D.J. (2017). The influence of gearing footwear on running biomechanics. Footwear Science, 9(2), 111-119. https://doi.org/10.1080/19424280.2017.1342705
29. Graf, E.S., **Wannop, J.W.**, Schlarb, H., & Stefanyshyn, D.J. (2017) Effect of Torsional Stiffness on Biomechanical Variables of the Lower Extremity During Running. Footwear Science, 9(1), 1-8. https://doi.org/10.1080/19424280.2016.1271365
30. **Wannop, J.W.** & Stefanyshyn, D.J. (2016) Editorial: Bending Stiffness: Performance and Injury Effects. Footwear Science, 8(2), 49-50. https://doi.org/10.1080/19424280.2016.1181947
31. Madden, R.J., Sakaguchi, R., **Wannop, J.W.** & Stefanyshyn, D.J. (2016). Forefoot Bending Stiffness, Running Economy and Kinematics during Overground Running. Footwear Science, 8(2), 91-98. https://doi.org/10.1080/19424280.2015.1130754
32. Stefanyshyn, D.J. & **Wannop, J.W.** (2016) The Influence of Forefoot Bending Stiffness of Footwear on Athletic Injury and Performance. Footwear Science 8(2), 51-63. https://doi.org/10.1080/19424280.2016.1144652
33. **Wannop, J.W.** & Stefanyshyn, D.J. (2016) The Effect of Translational and Rotational Footwear Traction on Lower Extremity Joint Loading. Journal of Sports Science, 34(7), 613-620. https://doi.org/10.1080/02640414.2015.1066023
34. **Wannop, J.W.**, Worobets, J.T., Madden, R., & Stefanyshyn, D.J. (2016) Influence of Compression and Stiffness Apparel on Vertical Jump Performance. Journal of Strength and Conditioning Research, 30(4), 1093-1101.
35. Stefanyshyn, D.J. & **Wannop, J.W.** (2015) Biomechanics Research and Sport Equipment Development. Sports Engineering, 18(4), 191-202. https://doi.org/10.1007/s12283-015-0183-5
36. Worobets, J.T. & **Wannop, J.W.** (2015) The Influence of Shoe Mass, Outsole Traction and Forefoot Bending Stiffness on Athletic Performance. Sports Biomechanics, 14(3), 351-360. https://doi.org/10.1080/14763141.2015.1084031

37. Worobets, J.T., **Wannop, J.W.**, Tomaras E., & Stefanyshyn, D.J. (2014). Softer and More Resilient Running Shoe Cushioning Properties Enhance Running Economy. Footwear Science, 6(3), 147-153. https://doi.org/10.1080/19424280.2014.918184
38. **Wannop, J.W.**, Worobets, J.T., Ruiz, R. & Stefanyshyn, D.J. (2014) Footwear Traction and Three-Dimensional Kinematics of Level, Downhill, Uphill and Cross-Slope Walking. Gait & Posture, 40, 118-122.
39. Worobets, J.T., Panizzolo, F., Hung, S., **Wannop, J.W.** & Stefanyshyn, D.J. (2014) Increased Running Shoe Traction Can Enhance Performance. Research Journal of Textile and Apparel, 18(2), 17-22.
40. Schrier, N.M., **Wannop, J.W.**, Lewinson, R.T., Worobets, J.T. & Stefanyshyn, D.J. (2014). Shoe-surface interaction affects performance of soccer-related movements. Footwear Science, Vol. 6(2), 69-80.
41. **Wannop, J.W.**, Graf, E. & Stefanyshyn, D.J. (2014). The Effect of Lateral Banking on the Kinematics and Kinetics of the Lower Extremity During Lateral Cutting Movements. Human Movement Science, Vol. 33, 97-107. https://doi.org/10.1016/j.humov.2013.07.020
42. **Wannop, J.W.**, Luo, G. & Stefanyshyn, D.J. (2013) Footwear Traction and Lower Extremity Non-Contact Injury. Medicine & Science in Sports & Exercise, Vol. 45(11), 2137-2143. 10.1249/MSS.0b013e318299ac56
43. **Wannop, J.W.**, Smith, G. & Stefanyshyn, D.J. (2013). Traction of Clogged Golf Footwear. Footwear Science, Vol. 5(2), 131-135. https://doi.org/10.1080/19424280.2013.789560
44. **Wannop, J.W.**, Worobets, J.T., & Stefanyshyn, D.J. (2012) Normalization of Ground Reaction Forces, Joint Moments and Free Moments in Human Locomotion. Journal of Applied Biomechanics, 28, 665-676.
45. Fukuchi, C.A., Worobets, J.T., **Wannop, J.W.** & Stefanyshyn, D.J. (2012). The Influence of Footwear with a Small Integrated Lateral Wedge on Knee Joint Loading During Walking. Footwear Science, Vol. 4(3), 207-212. https://doi.org/10.1080/19424280.2011.575836
46. **Wannop, J.W.**, Luo, G., & Stefanyshyn, D.J. (2012) Footwear Traction at Different Areas on Artificial and Natural Grass Fields. Sports Engineering, Vol. 15(2), 111-116.
47. **Wannop, J.W.** & Stefanyshyn, D.J. (2012). The Effect of Normal Load, Speed and Moisture on Footwear Traction. Footwear Science, Vol. 4(1), 37-43. https://doi.org/10.1080/19424280.2011.653992
48. **Wannop, J.W.**, Worobets, J.T., & Stefanyshyn, D.J. (2010). Footwear Traction and Lower Extremity Joint Loading. American Journal of Sports Medicine, Vol. 38(6), 1221-1228.
49. **Wannop, J.W.**, Luo, G., & Stefanyshyn D.J. (2009) Wear Influences Footwear Traction Properties In Canadian High School Football. Footwear Science, Vol. 1(3), 121-127.

PATENTS

1. Stefanyshyn, D.J., **Wannop, J.W**., & Madden, R.J. Method and System for Matching Athletes with Equipment.

BOOK CHAPTERS

1. Stefanyshyn, D.J. & **Wannop, J.W.** (2015). Sports Surfaces and Performance. Science and Engineering of Sports Surfaces.

NON-REFEREED PUBLICATIONS

1. Lower Extremity Review, January 2016. Footwear, Traction and the Risk of Athletic Injury.
2. New York Times, May 15, 2013. When Athletic Shoes Cause Injury.
3. Men's Health Magazine, December 2010. Nice Move, Slick. pg 44.

REFEREED ABSTRACTS

1. Crawford, R.C., **Wannop, J.W.**, Trama, R., Stefanyshyn, D.J. (2023). The influence of lateral wedged insoles during basketball-specific movements. Footwear Science, 15(S1), S146-147. https://doi.org/10.1080/19424280.2023.2199407
2. **Wannop, J.W.**, Kowalchuk, S., Smith, E., Aldahir, P., Spratley, E.M., O'Cain, C.M., Park, G., Stefanyshyn, D.J. (2023). Influence of sport surface properties on utilized traction and lower extremity biomechanics of American football players. Proceedings of the XXIX Congress of International Society of Biomechanics.
3. Trama, R., **Wannop, J.W.**, Stefanyshyn, D.J. (2023). Older and non-economic runners benefit from a softer midsole. 2023 European College of Sport Science Conference.
4. Esposito, M.J., Kowalchuk, S., Smith, E., Stefanyshyn, D.J., **Wannop, J.W.** (2023). Influence of turf fibres on mechanical traction of artificial turf surfaces. Proceedings of the XXIX Congress of International Society of Biomechanics.
5. Fukuchi, C.A., Crawford, R., Vogel, A., Stefanyshyn, D.J., **Wannop, J.W.** (2023). Changes in acceleration load during an agility test on artificial turf. Proceedings of the XXIX Congress of International Society of Biomechanics.
6. Trama, R., **Wannop, J.W.**, Smith, E., Stefanyshyn, D.J. (2023). The influence of midsole compression on acceleration magnitude in running. Proceedings of the XXIX Congress of International Society of Biomechanics.
7. Crawford, R.C., **Wannop, J.W.**, Stefanyshyn, D.J. (2023). The influence of lateral wedged insoles on the performance of a shuttle movement. Proceedings of the XXIX Congress of International Society of Biomechanics.
8. Barrons, Z.B., Tripp, T., **Wannop, J.W.**, Stefanyshyn, D.J. (2023). Midsole thickness, does size matter? Proceedings of the XXIX Congress of International Society of Biomechanics.
9. Denis, Y., **Wannop, J.W.**, Trama, R., Vogel, A., Stefanyshyn, D.J. (2023). The influence of midsole rocker geometry on walking biomechanics. Footwear Science, 15(S1), S144-S145, Proceedings of the XVI Footwear Biomechanics Symposium. https://doi.org/10.1080/19424280.2023.2199406
10. Fukuchi, C.A., Vogel, A., **Wannop, J.W.**, Stefanyshyn, D.J. (2023). Effect of carbon plate inserted in trail running shoes on foot and shank acceleration at different slopes. Footwear Science, 15(S1), S72-S73, Proceedings of the XVI Footwear Biomechanics Symposium. https://doi.org/10.1080/19424280.2023.2199291

11. Wang, C., Nitchke, M., **Wannop, J.W.**, Stefanyshyn, D.J., Luckfiel, T., Schlarb, H., Koelewijn, A. (2023). Predicting the effect of stack heigh ton running performance and biomechanics using optimal control simulation. Footwear Science, 15(S1), S78-S79, Proceedings of the XVI Footwear Biomechanics Symposium. https://doi.org/10.1080/19424280.2023.2199295
12. Barrons, Z.B., **Wannop, J.W.**, Stefanyshyn, D.J. (2023). The influence of midsole thickness on running biomechanics and performance in female and male runners, does size matter? Footwear Science, 15(S1), S8-S9, Proceedings of the XVI Footwear Biomechanics Symposium. https://doi.org/10.1080/19424280.2023.2199257
13. Esposito, M.J., **Wannop, J.W.**, Stefanyshyn, D.J. (2023). The influence of non-linear bending stiffness profile on sprint acceleration performance and biomechanics. Footwear Science, 15(S1), S14-S15, Proceedings of the XVI Footwear Biomechanics Symposium. https://doi.org/10.1080/19424280.2023.2199261
14. **Wannop, J.W.**, Stefanyshyn, D.J. (2023). Biomechanical variables associated with cleated footwear slipping. Footwear Science, 15(S1), S55-S56, Proceedings of the XVI Footwear Biomechanics Symposium. https://doi.org/10.1080/19424280.2023.2199281
15. Esposito, M., Barrons, Z., Clermont, C., **Wannop, J.W.**, Stefanyshyn, D.J. (2022). Shoe construction modifications to reduce braking force parameters during running. 27th Annual ECSS Congress, Spain.
16. Singh, P., Esposito, M., Barrons, Z., Clermont, C., **Wannop, J.W.**, Stefanyshyn, D.J. (2022). Utilizing data from a local position system as input into a neural network to determine stride length. 2022 North American Congress on Biomechanics.
17. Clermont, C., Durante, G., Barrons, Z., **Wannop, J.W.**, Stefanyshyn, D.J. (2022). The relationship between foot arch stiffness, midsole bending stiffness and running economy. 2022 American College of Sports Medicine Congress.
18. Clermont C., Barrons, Z., Esposito, M., Culo, M., Dominguez, E., **Wannop, J.W.**, & Stefanyshyn, D.J. (2021). The Influence of Midsole Shear on Running Smoothness. Proceedings of the XV Footwear Biomechanics Symposium.
19. Esposito, M., **Wannop, J.W.**, Stefanyshyn, D. (2021), Effects of midsole cushioning stiffness on Achilles tendon stretch during running. Proceedings of the XV Footwear Biomechanics Symposium.
20. Clermont, C., **Wannop, J.W.**, Normand, A., Emery, C., & Stefanyshyn, D.J. (2020). The use of impact monitoring mouthguards to quantify head impact biomechanics in youth football players. Canadian Society of Biomechanics.
21. Clermont, C., **Wannop, J.W.**, Normand, A., Emery, C., & Stefanyshyn, D.J. (2020). Differences in biomechanics between head impact helmet locations in youth football players. Canadian Society of Biomechanics.
22. **Wannop, J.W.**, Kowalchuk, S., Esposito, M., & Stefanyshyn D.J. (2020). Influence of artificial turf surface stiffness on athletic performance. Canadian Society of Biomechanics.
23. Barrons, Z.B., Ura, D., Bill, K., Cooke, E., **Wannop J.W.**, & Stefanyshyn, D.J. (2019). Required traction during common rugby movements. Proceedings of the XIIII Footwear Biomechanics Symposium.

24. Cooke, E.S., **Wannop, J.W.**, Barrons, Z.B., Burkhardt, K., Park, SK., & Stefanyshyn, D.J. (2019). Influence of foot arch properties on running performance. Proceedings of the XIIII Footwear Biomechanics Symposium.
25. Esposito, M., **Wannop, J.W.**, & Stefanyshyn, D.J. (2019). Tendon and muscle fascicle length changes during running with compliant and stiff footwear cushioning. Proceedings of the XIIII Footwear Biomechanics Symposium.
26. Firminger, C., Bruce, O., **Wannop, J.W.**, Stefanyshyn, D.J., & Edwards, W.B. (2018). Surface construction alters patellar tendon strains in jumping. Proceedings of the 8th World Congress of Biomechanics, Dublin, Ireland.
27. Bruce, O., Firminger, C., **Wannop, J.W.**, Stefanyshyn, D.J., & Edwards, W.B. (2018). Patellar tendon stiffness in male adolescent basketball players. Proceedings of the 8th World Congress of Biomechanics, Dublin, Ireland.
28. **Wannop, J.W.**, Killick, A., Madden, R., & Stefanyshyn D.J. (2017). Influence of the composition of artificial turf on rotational traction and athlete biomechanics. Footwear Science, Vol 9(S1), S40-S42. Proceedings of the XIII Footwear Biomechanics Symposium.
29. **Wannop, J.W.**, Killick, A., Madden, R., Stefanyshyn D.J. (2017). Influence of gearing footwear on performance and biomechanical injury risk. Proceedings of the XXVI Congress of the International Society of Biomechanics.
30. Edwards, W.B., **Wannop, J.W.**, Stefanyshyn, D.J. (2016). Prediction of patellar tendinopathy using Weibull analysis. Proceedings of the XXXX Meeting of the American Society of Biomechanics.
31. **Wannop, J.W.**, Madden, R., Worobets, J.T., & Stefanyshyn, D.J. (2015). Can Compression Aid in Maintaining Jump Performance During a Fatiguing Protocol? Proceedings of the XXV Congress of the International Society of Biomechanics.
32. Madden, R., Schrier, N., Kondro, D., Grover, R., **Wannop, J.W.**, Stefanyshyn, D.J. (2015). The Effects of Altered Forefoot Bending and Torsional Stiffness on the Biomechanics of Curved Running. Proceedings of the XXV Congress of the International Society of Biomechanics.
33. Sakaguchi M., Madden, R., Schrier, N., Koska, D., **Wannop, J.W.**, Stefanyshyn, D.J. (2015). Biomechanical and Gender Differences between Single-legged and Two-legged Running Vertical Jumps. Proceedings of the XXV Congress of the International Society of Biomechanics.
34. Madden, R., Sakaguchi, M., **Wannop, J.W.,** & Stefanyshyn, D.J. (2015). Forefoot Bending Stiffness, Running Economy and Kinematics During Overground Running. Footwear Science, Vol 7(S1), S11-S13. Proceedings of the XII Footwear Biomechanics Symposium.
35. Sakaguchi M., **Wannop, J.W.**, Madden, R., Koska, D., & Stefanyshyn, D.J. (2015). Effects of Shoe Bending Stiffness and Surface Stiffness on lower Extremity Biomechanics During Running. Footwear Science, Vol 7(S1), S4-S6. Proceedings of the XII Footwear Biomechanics Symposium.
36. **Wannop, J.W.**, Schrier, N., Worobets, J.T. & Stefanyshyn, D.J. (2015). Influence of Forefoot Bending Stiffness on American Football Performance. Footwear Science, Vol 7(S1), S141-S142. Proceedings of the XII Footwear Biomechanics Symposium.
37. Worobets, J.T., Tomaras, E., **Wannop, J.W.** & Stefanyshyn, D.J. (2013). Running Shoe Cushioning Properties Can Influence Oxygen Consumption. Footwear Science, Vol5(S1), S75-76. Proceedings of the Eleventh Footwear Biomechanics Symposium.

38. Schrier, N.M., **Wannop, J.W.**, Worobets, J.T. & Stefanyshyn, D.J. (2013). Effects of Artificial Turf on Performance and Ground Contact Kinetics During a Sprint Acceleration. Footwear Science, Vol5(S1), S101-103. Proceedings of the Eleventh Footwear Biomechanics Symposium.
39. **Wannop, J.W.** & Worobets, J.T. (2013). Influence of Basketball Shoe Mass, Traction and Bending Stiffness on Athletic Performance. Footwear Science, Vol 5(S1), S98-S100. Proceedings of the Eleventh Footwear Biomechanics Symposium.
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129. Worobets, J.T., **Wannop, J.W.**, McMurray, O., & Stefanyshyn, D.J. (2012). The Effect of Hip Joint Stiffness on Jumping Kinematics. Technical Report for adidas AIT.
130. Worobets, J.T., **Wannop, J.W.**, Stefanyshyn D.J. (2012). Adapting to Increased Driver Length. Technical Report for TaylorMade-adidas Golf.
131. Worobets, J.T., Fukuchi, C., Tomaras, E., **Wannop, J.W.**, Stefanyshyn, D.J. (2012). Energetics of Boost Footwear. Technical Report for adidas AIT.
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133. **Wannop, J.W.**, Schrier, N., Ruiz, R., Worobets, J.T., Stefanyshyn, D.J. (2012). Outsole Traction Maps for American Football Cleats. Technical Report for adidas AIT.
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135. **Wannop, J.W.**, Schrier, N., Worobets, J.T., Ruiz, R., Stefanyshyn, D.J. (2012). Artificial Turf Toolbox. Technical Reports for adidas AIT.
136. Worobets, J.T., **Wannop, J.W.**, Ruiz, R., Stefanyshyn, D.J. (2012). Outsole Traction Requirements for Outdoor Shoes. Technical Reports for adidas AIT.
137. **Wannop, J.W.**, Worobets, J.T., Stefanyshyn, D.J. (2012). Articulate Basketball Footwear: Performance and Injury Risk Assessment. Technical Reports for adidas AIT.
138. **Wannop, J.W.**, Worobets, J.T., van der Smissen, S., Walgaard, S., Beudel, J., Stefanyshyn, D.J. (2011). The Effect of Upper Leg Compression and Hip Joint Stiffness on Sprinting and Jumping Performance. Technical Reports for adidas AIT.
139. Worobets, J.T., Fukuchi, C.A., Palhano, R., **Wannop, J.W.**, Stefanyshyn, D.J. (2011). Quantifying the Effect of Footwear on Tennis Performance. Technical Reports for adidas AIT.

140. **Wannop, J.W.**, Palhano, R., Worobets, J.T., Stefanyshyn, D.J. (2011). Regional Traction Requirements of Basketball Shoes. Technical Report for adidas AIT.
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142. Stefanyshyn, D.J., Worobets, J.T., Josef, N., Luo, G., **Wannop, J.W.** (2010). Spike Traction and Spike Placement. Technical report for adidas AIT.
143. Worobets, J.T., **Wannop, J.W.**, Stefanyshyn, D.J. (2010). Printed PU vs. Pressed TPU PowerWeb Apparel. Technical report for adidas AIT.
144. Worobets, J.T., **Wannop, J.W.**, Stefanyshyn, D.J. (2010). PowerWeb Cycling Shorts. Technical report for adidas AIT.
145. Worobets, J.T., **Wannop, J.W.**, Stefanyshyn, D.J. (2010). Adidas Launch Control. Technical report for adidas AIT.
146. Worobets, J.T., Stergiou, P., Hess, T., Schmidt, D., **Wannop, J.W.**, & Stefanyshyn, D.J. (2010). Adidas Fluid Ride: Assessing the Fluid Ride Concept in Prototype Athletic Training Shoes. Technical report for adidas AIT.
147. Stefanyshyn, D.J., Graf, E., **Wannop, J.W.** (2010). Football Torsion. Technical report for adidas AIT.
148. Stefanyshyn, D.J. & **Wannop J.W.** (2009). Basketball Banking. Technical report for adidas AIT.
149. Worobets, J.T., **Wannop, J.W.**, Stefanyshyn, D.J. (2009). Influence of PowerWeb Stiffness on Hip Joint Mechanics, Energy Storage and Performance during Sprinting and Jumping. Technical report for adidas AIT.
150. Stefanyshyn, D.J., Graf, E., **Wannop, J.W.**, & Worobets, J.T. (2008). Footwear Torsion. Technical report for adidas AIT.
151. Worobets, J.T., **Wannop, J.W.** & Stefanyshyn, D.J. (2008). Klap Mechanism Revolution. Research report for Own the Podium – Top Secret 2010.
152. **Wannop, J.W.**, Worobets, J.T. & Stefanyshyn D.J. (2008). Speed Skate Apparel Design. Research report for Own the Podium – Top Secret 2010.
153. Worobets, J.T., **Wannop, J.W.** & Stefanyshyn, D.J. (2008). Formotion Hiking on Level Ground. Technical report for adidas AIT.
154. Worobets, J.T., **Wannop, J.W.**, Luo, G. & Stefanyshyn D.J. (2007). Influence of Performance Apparel on Hip Joint Mechanics during Sprinting and Jumping. Technical report for adidas AIT.
155. **Wannop, J.W.**, Worobets, J.T., Stefanyshyn, D.J. & Nigg, B.M. (2006). Analysis of Formotion Basketball Footwear. Technical report for adidas AIT.

INVITED SPEAKER

1. 2022 Pedorthic Runners Forum – September 16, 2022 – Influence of Longitudinal Bending Stiffness of Footwear on Athletic Injury and Performance - Keynote
2. 2021 FieldTurf Annual Sales Meeting – November 10, 2021 – Marana, Arizona, USA – Turf Traction Research
3. 2019 Canadian Academy of Sport and Exercise Medicine – September 14, 2019 – Calgary, Alberta, Canada – Running Shoe Design and Biomechanics.

4. 2019 Xsens User Meeting – July 31, 2019 – Calgary, Alberta, Canada – Use of Xsens to Quantify In-field Kinematics of High-Performance Athletes

REFEREE FOR JOURNAL PAPERS

Footwear Science
Journal of Applied Biomechanics
Sport Biomechanics
British Journal of Sports Medicine
Medicine & Science in Sports & Exercise
Computers in Biology and Science
PLOS ONE

CO-EDITOR FOR JOURNAL

Footwear Science (IF=3.0) – 2023 -

ASSOCIATE EDITOR FOR JOURNAL

Footwear Science (IF=3.0) – 2019 - 2023

GUEST EDITOR FOR JOURNAL

Special Issue: Bending Stiffness Performance and Injury Effects (2016) Footwear Science, 8(2).

AWARDS

2012-2014	Alberta Innovates Industry r&D Associate	$55,000 per year
2011	Benno Nigg Distinguished Faculty Achievement Award	$800
2011	Faculty of Graduate Studies Achievement Award	$500
2011	Young Investigator Award Footwear Biomechanics Group	$1000
2011	NSERC CREATE Travel Grant	$750
2011	Faculty of Kinesiology Travel Grant	$1000
2011	University of Calgary Travel Grant	$1000
2011	Faculty of Graduate Studies Scholarship	$3000
2010 -2012	NSERC PGS D Ph. D. award	$21,000 per year
2009	International Society of Biomechanics Travel Grant	$1500

2009	University of Calgary Travel Grant	$1000
2009	University of Calgary Graduate Research Scholarship	$3000
2009	University of Calgary Graduate Research Scholarship	$4050
2008-2009	NSERC PGS Masters Award	$17,300 per year
2008-2011	Graduate Research Assistantship – Teaching	$7950 per year
2007	University of Calgary Graduate Research Scholarship	$2050
2006	Markin-Flanigan Scholarship	$2500
2006	Student Assistance Bursary	$800
2005	Markin-Flanigan Scholarship	$4000

GRANTS

2023-2025 **Title:** Optimizing Artificial Turf Surfaces (currently under review)
Funding Agency: NSERC Alliance – Mitacs Accelerate
Principal Investigator: John Wannop
Amount: $180,000

2023-2025 **Title:** Quantifying Sprinting Profiles with Wrist-worn Technology
Funding Agency: Mitacs Elevate
Principal Investigator: John Wannop
Amount: $120,000

2023-2028 **Title:** Mechanisms of Shoe/Surface Stiffness and traction on Male and Female Athlete Fatigue
Funding Agency: NSERC Discovery Grant
Principal Investigator: John Wannop
Amount: $160,000

2023-2024 **Title:** Optimizing Rugby Cleat Design for Female Rugby Players
Funding Agency: World Rugby
Principal Investigator: John Wannop
Amount: $83,507

2023 **Title:** Mechanisms of Shoe/Surface Stiffness and traction on Male and Female Athlete Fatigue
Funding Agency: NSERC Discovery Grant – Early Career Researcher Supplement
Principal Investigator: John Wannop
Amount: $12,500

2022-2024 **Title:** Football Cleats to Optimize Rotational Traction on Artificial Turf
Funding Agency: Mitacs Accelerate
Principal Investigator: John Wannop
Amount: $120,000

2019-2020 **Title:** Optimizing the comfort for 3D printed insoles
Funding Agency: NSERC Engage Grant
Principal Investigator: John Wannop
Amount: $25,000

2019-2021 **Title:** Optimizing artificial turf
Funding Agency: NSERC CRD Grant
Principal Investigator: Darren Stefanyshyn
Amount: $226,600

2017-2019 **Title:** The influence of footwear traction on biomechanical injury risk in rugby
Funding Agency: World Rugby
Principal Investigator: Darren Stefanyshyn
Amount: $88,216

2016-2018 **Title:** Towards the real-time monitoring of tendon strain and cumulative damage to minimize the risk of patellar tendinopathy.
Funding Agency: NBA/GE Healthcare Orthopedics and Sports Medicine Collaboration
Principal Investigator: Brent Edwards
Amount: $138,521

STUDENTS SUPERVISED

2023	Gabriella Durante	University of Calgary
2023	Theresa Brandstätter	University of Salzburg
2022	Anniek Vogel	Hague University of Applied Science
2022	Loic Gavoille	ESPCI Paris – PSL, France
2021	Jake Ruschkowski	University of Calgary, Canada
2021	Gabriella Durante	University of Calgary, Canada
2021	Marina Culo	University of Calgary, Canada
2020	Eugene Dominguez	University of Calgary, Canada
2020	Alexandra Sawka	University of Calgary, Canada
2020	Emily Smith	University of Calgary, Canada

2019	Simon Gebauer	University of Technology, Chemnitz
2018	Katharina Burkhardt	University of Technology, Chemnitz
2018	Isa van Rijswijk	Hague University of Applied Science
2018	Thomas Reijnierse	Hague University of Applied Science
2018	Jonatan Jungmalm	University of Gothenburg
2018	Danielle Hartley	University of Calgary, Canada
2018	Zach Barron	University of Northern Colorado, USA
2018	Anke Nesselaar	University of Twente, Netherlands
2018	Kevin Bill	German Sport University Cologne, Germany
2018	Leesa Schlenker	University of Calgary, Canada
2017	Leah Bonli	University of Calgary, Canada
2017	Quita Pol	Hague Academy, Netherlands
2017	Tessa von Enter	Hague Academy, Netherlands
2017	Teague Foreman	University of Calgary, Canada
2017	Michael Esposito	University of Calgary, Canada
2017	Richard Voelkel	TU Chemnitz, Germany
2017	Nils Spiegelhoff	German Sport University Cologne
2016	Jasper Kwasny	University of Calgary, Canada
2016	Teague Foreman	University of Calgary, Canada
2016	Julia Prusch	Universidad Federal Porto Alegre, Brazil
2016	Jon Hack	University of Calgary, Canada
2016	Kip Badgery	University of Waterloo, Canada
2016	Rosemary Grover	University of Calgary, Canada
2016	Courtney Woo	University of Calgary, Canada
2015	Amy Hawkings	University of Calgary, Canada

2015	Carolina Viero	Universidad Federal Porto Alegre, Brazil
2015	Carla Flores	Universidad Iberoamericana, Mexico
2015	Madison Grainger	University of Calgary, Canada
2014	Rita Benker	German Sport University, Cologne, Germany
2014	Daniel Koska	Technical University of Chemnitz, Germany
2014	Giancarlo Carpino	University of Calgary, Canada
2014	Lina Felser	Friedrich Alexandre Universitat, Germany
2014	Billy Woo	University of Calgary, Canada
2014	Brendan Wong	University of Calgary, Canada
2014	Brian McPhee	University of Calgary, Canada
2013	Steffen Luiff	German Sport University, Cologne, Germany
2013	Marie Wolter	German Sport University, Cologne, Germany
2013	Rosemary Grover	University of Calgary, Canada
2013	Doug Kondro	University of Calgary, Canada
2013	Telaina Sewers	University of Calgary, Canada
2013	Michael Foster	University of Calgary, Canada
2012	Olivia McMurray	University of Calgary, Canada
2012	Luis Rodrigo Ruiz Vilchis	Universidad Iberoamericana, Mexico
2011	Sjoerd van der Smissen	The Hague University, The Netherlands
2011	Stefan Walgaard	The Hague University, The Netherlands
2011	Joris Beudel	The Hague University, The Netherlands
2009	Laural Kuntz	University of Calgary, Canada
2008	Cole Stroeder	High School Student - HYRS Program