

CURRICULUM VITAE

DARREN J. STEFANYSHYN

Ph.D, P.Eng

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Business: Human Performance Laboratory
University of Calgary
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Calgary, Alberta, Canada T3K 5C4
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NATIONALITY: Canadian

DATE OF BIRTH: November 29, 1968

EDUCATION

- 1996 Doctor of Philosophy (Ph.D.) in Mechanical Engineering
University of Calgary, Calgary, Canada
Specialization: Biomechanics Supervisor: Dr. Benno M. Nigg
- 1990 Bachelor of Science (B.E.) in Mechanical Engineering - Great Distinction
University of Saskatchewan, Saskatoon, Canada

AWARDS AND HONORS

- 2000 Human Performance Laboratory Faculty Leadership Award
2005 Roger Jackson Centre Faculty Contribution Award
2008 Golf Digest Equipment and Technology Research Award (Jay Worobets and Darren Stefanyshyn)
2010 ASB Jim Hay Memorial Award for Research in Sports and Exercise Biomechanics
2011 Nike Award for Athletic Footwear Research - \$25,000 (Geng Luo and Darren Stefanyshyn)
2013 Biomedical Engineering Outstanding Supervisor Award
2014 Faculty of Graduate Studies Great Supervisor Award
2015 International Society of Biomechanics Fellowship

PROFESSIONAL EXPERIENCE

- 2011- **Professor**
Faculty of Kinesiology, University of Calgary, Canada
- 2011-2022 **Adjunct Professor**
Department of Mechanical and Manufacturing Engineering, University of Calgary, Canada
- 2013-2015 **Associate Dean (Graduate)**
Faculty of Kinesiology, University of Calgary, Canada
- 2012-2013 **Interim Associate Dean**
Faculty of Kinesiology, University of Calgary, Canada
- 2004-2011 **Adjunct Associate Professor**
Department of Mechanical and Manufacturing Engineering, University of Calgary, Canada
- 2004-2011 **Associate Professor**
Faculty of Kinesiology, University of Calgary, Canada
- 2001-2004 **Adjunct Assistant Professor**
Department of Mechanical and Manufacturing Engineering, University of Calgary, Canada
- 1997-2004 **Assistant Professor**
Faculty of Kinesiology, University of Calgary, Canada
- 1996-1997 **Research Associate**
Human Performance Laboratory, the University of Calgary, Canada
- 1992-1996 **Teaching Assistant - Graduate Student**
The University of Calgary, Canada
- 1990-1992 **Production Engineer**
Shell Canada Limited, Calgary, Canada
- 1990 **Research Assistant**
Koninklijke Shell Laboratorium, Amsterdam, Netherlands

SERVICE EXPERIENCE

- 2019 **Organizing Committee**
International Society of Biomechanics XXVII Conference, Calgary, Canada
- 2019- **Editorial Board**
Footwear Science
- 2017- **Engineering Committee**
National Football League
- 2011- **Editorial Board**
European Journal of Sport Science
- 2009-2019 **Associate Editor**
Footwear Science
- 2009-2013 **Executive Board Member**
International Society of Biomechanics
- 2009 **Chair**
Ninth Footwear Biomechanics Symposium, Stellenbosch, South Africa
- 2008-2016 **Editorial Board**
Sports Technology
- 2007-2009 **Chairperson**
International Society of Biomechanics Technical Group on Functional Footwear
- 2005-2007 **Chairperson Elect**
International Society of Biomechanics Technical Group on Functional Footwear
- 2001-2005 **Executive Board Member**
International Society of Biomechanics Technical Group on Functional Footwear
- 2000-2006 **Secretariat of Member Affairs**
Canadian Society for Biomechanics
- 2002 **Secretary General**
Fourth World Congress of Biomechanics, Calgary, Canada, 2002
- 1999 **Chair**
Fourth Symposium on Footwear Biomechanics, Canmore, Canada
- 1999 **Secretary General**
International Society of Biomechanics XVII Conference, Calgary, Canada

PROFESSIONAL MEMBERSHIPS

International Society of Biomechanics
Canadian Society for Biomechanics
International Society of Biomechanics Technical Group on Functional Footwear
European College of Sport Science
International Society of Biomechanics in Sports
Association of Professional Engineers, Geologists and Geophysicists of Alberta

FACULTY AND UNIVERSITY COMMITTEES

University Appeal Review Administrator – University Appeals Committee (2021-
University Appeals Tribunal (2018-
Kinesiology Steering Committee (2016-)
Kinesiology Tenure and Promotions Committee (2020, 2021)
Kinesiology Curriculum Policy Committee Member (1997-2000, 2010-2012, 2020-)
Kinesiology Library Coordinator (1997-1999)

Kinesiology Representative on Engineering Faculty Council (1997-2008)
 Kinesiology Biomechanics Curriculum Redesign Fellow (1999-2001)
 Kinesiology Faculty Leader – USRP Bone and Joint Health (2002-2003)
 Kinesiology Biomechanics Curriculum Coordinator (2002-2009)
 Biomedical Engineering Undergraduate Program Committee (2003-2009)
 GFC Ad-hoc Review Committee of Non-academic Misconduct (2003-2005)
 Biomedical Engineering Graduate Program Committee (2004-2010)
 Biomedical Engineering Selection Hiring Committee (2004)
 Kinesiology Dean Selection Committee (2004-2005)
 Biomedical Engineering Undergraduate Curriculum Committee (2004-2006)
 General Faculties Council Research Committee (2005-2006)
 Kinesiology Graduate Scholarship Committee (2005-2006)
 University Research Grants Committee (2005-2006)
 University Health Safety and Security Committee (2007-2008)
 Faculty of Graduate Studies NSERC Adjudication Committee (2009)
 Kinesiology Graduate Education Committee (2009-2015, 2018-2020)
 Kinesiology Faculty Promotions Committee (2009-2013, 2018)
 Kinesiology Graduate Research Committee (2009-2013)
 Kinesiology Academic Appointment Review Committee (2010-2011)
 Kinesiology Research and Scholarship Leave Committee (2010)
 Kinesiology Academic Appeals Committee (2011)
 Kinesiology Dean’s Advisory Committee (2011-2012)
 Killam Professor Selection Committee (2012-2015)
 Alberta Innovates Technology Futures Scholarship Committee (2012)
 Kinesiology Master Planning Committee (2012-2015)
 Eyes High Postdoctoral Fellowship Review Committee (2013)
 Kinesiology Scholarly Misconduct Committee (2013)
 University Council of Associate Deans/Directors International (2013-2015)
 University of Calgary Eyes High Doctoral Review Committee (2014)
 Olympic Oval Director Hiring Committee (2014)
 Sociocultural Assistant Professor Hiring Committee (2014)
 Graduate Studies Scholarship Committee (2013-2015)
 University Vanier Student Scholarship Committee (2014)

POSTDOCTORAL FELLOWS SUPERVISED

Claudiane Fukuchi	Federal University of ABC	2022-
Robin Trama	Université Claude Bernard Lyon 1	2021-
Christian Clermont	University of Calgary	2019-2021
Daniel Ura	University of Sheffield	2018-2019
Masanori Sakaguchi	Waseda University	2013-2016
Bill Wannop	University of Calgary	2012-2018
Jay Worobets	University of Calgary	2008-2013

GRADUATE STUDENTS SUPERVISED

Reyna Crawford	MSc Biomedical Engineering	2021-
Michael Esposito	PhD Biomedical Engineering	2021-
Ishan Malagalage Don	MSc Kinesiology	2020-2022
Zachary Barrons	PhD Kinesiology	2019-
Pratham Singh	MSc Biomedical Engineering	2019-2021
Michael Esposito	MSc Biomedical Engineering	2018-2020
Nicole Schrier	MSc Kinesiology	2012-2014
Ryan Lewinson (Co-supervise)	PhD Biomedical Engineering	2010-2016
Sean Osis	MSc Kinesiology	2008-2010
Eveline Graf	PhD Kinesiology	2008-2012
Joerg Neubauer (Co-supervise)	MSc University of Chemnitz, Germany	2008-2009

Louis Poirier (Co-supervise)	PhD Physics	2007-2011
Bill Wannop	PhD Kinesiology	2007-2012
Geng Luo	PhD Kinesiology	2006-2012
Tiffany Edgcombe	PhD Mechanical Engineering	2005-2010
Brady Anderson	MSc Kinesiology/Mechanical Engineering	2004-2007
Blayne Hettinga	PhD Kinesiology	2003-2009
Jay Worobets	PhD Kinesiology	2002-2008
Sang Kyoong Park	PhD Kinesiology	2002-2008
J.P. Roy	MSc Kinesiology	2001-2004
Scott van Horne	MSc Kinesiology	2001-2003
Jason Krell	MSc Kinesiology	1999-2002

GRADUATE STUDENTS – SUPERVISORY COMMITTEE

Alex Robertshaw	MSc Mechanical Engineering	2021-
Arash Khassestarash	PhD Kinesiology	2018-2022
Franziska Onasch	PhD Kinesiology	2017-
Sasa Cigoja	PhD Kinesiology	2017-2020
Colin Firminger	PhD Biomedical Engineering	2016-2021
Olivia Bruce	MSc Kinesiology	2016-2018
Luciano Tomaghelli	MSc Kinesiology	2013-2015
Kaleena Johnston	MSc Kinesiology	2013-2015
Sigrun Matthiasdottir	MSc Biomedical Engineering	2012-2014
Jordyn Vinneau	MSc Kinesiology	2012-2013
Brandon Hisey	PhD Biomedical Engineering	2011-2017
Jennifer Baltich	PhD Kinesiology	2011-2016
Stefan Hoerzer	PhD Kinesiology	2011-2017
Anthony Killick	MSc Kinesiology	2011-2014
Michael Dew	MSc Kinesiology	2011-2012
Conrad Tang	MSc Kinesiology	2010-2014
Reginaldo Fukuchi	PhD Kinesiology	2010-2013
Erin Korsbrek	MSc Kinesiology	2010-2011
Meaghan Nolan	MSc Kinesiology	2009-2010
Elysia Davis	MSc Kinesiology	2008-2010
Neal Austin	MSc Kinesiology	2008-2010
Melissa Rabito	MSc Kinesiology	2008-2010
Hashel Al Tunajji	MSc Kinesiology	2008-2009
Anne-Marie Kietzig	PhD Engineering-University of British Columbia	2007-2009
Jared Fletcher	MSc Kinesiology	2007-2008
Tim Leonard	PhD Kinesiology	2006-2010
Derek Panchuk	PhD Kinesiology	2005-2008
James Croft	PhD Kinesiology	2003-2006
Prism Schneider	PhD Kinesiology	2003-2005
Daniel Pittman	MSc Kinesiology	2002-2004
Yukiko Toyoda	MSc Kinesiology	2001-2005
Anne Mundermann	PhD Medical Science	1999-2002
Matthew Nurse	PhD Medical Science	1999-2002
Stephen Martell	MSc Kinesiology	1999-2001
Mark Oleson	MSc Mechanical Engineering	1999-2000

GRADUATE STUDENTS – THESIS EXAMINING COMMITTEE

Aaron Belbasis	PhD-RMIT University	2021
Alejandra Polanco	PhD-Pontificia Universidad Javeriana	2020
Kenneth Pfister	MSc Community Health Sciences	2019
Kristine Vodon	MEDes Environmental Design	2019
Nguyen Thanh Luan	PhD-Nanyang Technological University	2017

Justin Sullivan	PhD-The University of Sydney	2015
John Schipilow	MSc Biomedical Engineering	2012
Saghar Nasr	MSc Mechanical Engineering	2012
Alexander Hume	MSc Biological Science	2012
Andrew Godbout	MSc Computer Science	2011
Marcin Pilat	PhD Computer Science	2009
Liane Azevedo	PhD Exercise Science-University of Cape Town	2009
Gillian Mara	PhD Mechanical Engineering-Loughborough	2007
James Croft	PhD Kinesiology	2006
Jasmine Beye	MSc Medical Science	2006
Brad Monteleone	PhD Medical Science	2006
Vivienne Chuter	PhD Health Sciences-University of Cape Town	2006
Regan Arendse	PhD Human Biology-University of Cape Town	2004
David Longino	MSc Medical Science	2003
Anne Gildenhuys	MSc Mechanical Engineering	2003
Ryan McComiskey	MSc Mechanical Engineering	2002
Lou Rosenfeld	MSc Mechanical Engineering	2000
Claire Davies	MSc Mechanical Engineering	1999

UNDERGRADUATE AND VISITING STUDENTS SUPERVISED

Theresa Brandstätter	Paris Lodron Universität Salzburg, Austria	2023
Yannick Denis	University of Freiburg, Germany	2022-2023
Shadan Al-Saket	Kinesiology, University of Calgary	2022
Loic Gavaille	ESPCI Paris, France	2022
Mohamed Asiff	Kinesiology, University of Calgary	2019-2020
Masooma Tahir	Mechanical Engineering, University of Calgary	2019
Nicholas Perewernycky	Mechanical Engineering, University of Calgary	2019
Vivian Mark	Civil Engineering, University of Calgary	2018-2019
Christian Corpuz	Kinesiology, University of Calgary	2018-2019
Zachary Barrons	Kinesiology, Northern Colorado	2018
Kevin Bill	German Sport University Cologne, Germany	2018-2019
Katharina Burkhardt	Technical University of Chemnitz, Germany	2018-2019
Teague Foreman	Kinesiology, University of Calgary	2017
Nils Spiegelhoff	German Sport University Cologne, Germany	2017
Richard Völkel	Technical University of Chemnitz, Germany	2017
Michael Esposito	Kinesiology, University of Calgary	2017
Jasper Kwasny	Kinesiology, University of Calgary	2016-2017
Courtney Woo	Kinesiology, University of Calgary	2016-2017
Kip Badgery	Queen's University, Canada	2016
Jonathan Hack	Mechanical Engineering, University of Calgary	2016
Teague Foreman	Kinesiology, University of Calgary	2016
Carla Flores	Universidad Iberoamerica, Mexico	2015
Carolina Viero	Universidade Federal Porto Alegre, Brazil	2015
Amy Hawkings	Kinesiology, University of Calgary	2015
Kip Badgery	Queen's University, Canada	2015
Billy Woo	Kinesiology, University of Calgary	2014-2015
Brendon Wong	Kinesiology, University of Calgary	2014-2015
Brian McPhee	Kinesiology, University of Calgary	2014-2015
Joshua Lecoupe	Kinesiology, University of Calgary	2014-2015
Chad Maag	Mechanical Engineering, University of Calgary	2014-2015
Lina Felsner	Friedrich Alexandre Universität, Germany	2014-2015
Rita Benker	German Sport University, Cologne, Germany	2014
Giancarlo Carpino	Kinesiology, University of Calgary	2014
Ana Villarreal	Mechanical Engineering, University of Calgary	2014
Daniel Koska	Technical University of Chemnitz, Germany	2014

Ryan Otsuka	Kinesiology, University of Calgary	2014
Kahleen Ang	Biomedical Engineering, University of Calgary	2013
Gordon Penny	Mechanical Engineering, University of Calgary	2013
Tatiane Piucco	Federal University of Santa Catarina, Brazil	2013-2014
Jeff Owen	Kinesiology, University of Calgary	2013
Marie Wolter	German Sport University, Cologne, Germany	2013
Steffen Leulf	German Sport University, Cologne, Germany	2013
Douglas Kondro	Mechanical Engineering, University of Calgary	2013
Rosemary Grover	Mechanical Engineering, University of Calgary	2013
Ricardo Peterson Silveira	University of Verona, Italy	2012
Sam Dorosz	Biomedical Engineering, University of Calgary	2012-2013
Alexander Siegal	University of Konstanz, Germany	2012-2013
Emmanuel Rocha	Federal University of Pampa, Brazil	2012
Tobias Hein	Universitätsklinikum Tübingen, Germany	2012
Masanori Sakaguchi	Waseda University, Japan	2012
Olivia McMurray	Biomedical Engineering, University of Calgary	2012
Riley Booth	Biomedical Engineering, University of Calgary	2012
Luis Rodrigo Ruiz Vilchis	Universidad Iberoamericana, Mexico	2012
Alex Sonner	University of Konstanz, Germany	2011-2012
Nick de Ruyter	Kinesiology, University of Calgary	2011-2012
Muzaffar Sayeed	Biomedical Engineering, University of Calgary	2011-2012
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	2011
Preston Eng	Mechanical Engineering, University of Calgary	2011
Nicole Shrier	Kinesiology, University of Calgary	2011-2012
Ricardo Peterson Silveira	Federal University of Rio Grande do Sul, Brazil	2011
Rudnei Palhano	Federal University of Rio Grande do Sul, Brazil	2010-2011
Robert Laan	The Hague University, The Netherlands	2010-2011
Antoon Philippi	University of Twente, The Netherlands	2010-2011
Nigel Joseph	Colorado State University, USA	2010
Tobias Hess	Technical University of Chemnitz, Germany	2009-2010
Daniel Schmidt	Technical University of Chemnitz, Germany	2009-2010
Angela Huang	Hong Kong Polytechnic University, Hong Kong	2009
Jens Heidenfelder	Technical University of Chemnitz, Germany	2009
Stephen Hung	Kinesiology, University of Calgary	2009
Fausto Panazollo	University of Padova, Italy	2009
Joerg Neubauer	University of Chemnitz, Germany	2008
Willem van Dijk	University of Twente, The Netherlands	2008
Wouter Visch	Haagse Hogeschool, The Netherlands	2008
Harmen van der Wal	Haagse Hogeschool, The Netherlands	2008
Felipe Carpes	Federal U of Rio Grande do Sul, Brazil	2008
Laurie Tremblay	University of Ottawa	2006
Stan Mazursky	Kinesiology, University of Calgary	2006
Bill Wannop	Kinesiology, University of Calgary	2006
Stan Mazursky	Kinesiology, University of Calgary	2005-2006
Bill Wannop	Kinesiology, University of Calgary	2005-2006
John Fairbairn	Mechanical Engineering, University of Calgary	2005
Darren Hinton	Kinesiology, University of Calgary	2005
Bastiaan Mooij	University of Twente, The Netherlands	2004-2005
Erik van den Haak	University of Twente, The Netherlands	2004-2005
John Fairbairn	Mechanical Engineering, University of Calgary	2004
Lisette Coolen	University of Twente, The Netherlands	2004
Thomas Wheeler	INSA, France	2004
Fiona van Doorn	Vrije Universiteit Amsterdam, The Netherlands	2003
Luke Savage	Kinesiology, University of Calgary	2003

Amy Barnett	Kinesiology, University of Calgary	2003
Frans van Wegen	University of Twente, The Netherlands	2002
Jay Worobets	Kinesiology, University of Calgary	2002
Erick Noriega	Kinesiology, University of Calgary	2002
Carola Henzen	The Hague University, The Netherlands	2001
Ralf Bekers	The Hague University, The Netherlands	2001
Lars Strudsholm	Mechanical Engineering, University of Calgary	2001
Josee Henckens	University of Gronigen, The Netherlands	2000
Antra Rozitis	Kinesiology, University of Calgary	2000
Gijs van Duinen	University of Twente, The Netherlands	1999
Martine Brandsma	Hague U of Prof Education, The Netherlands	1999
Melvyn Roerdink	Hague U of Prof Education, The Netherlands	1999
Lars Strudsholm	Mechanical Engineering, University of Calgary	1999
Kerim Genc	Kinesiology, University of Calgary	1999
Ingrid van der Vlist	Hague U of Prof Education, The Netherlands	1997
Richard Balk	Hague U of Prof Education, The Netherlands	1997

VISITING PROFESSORS (longer than one month)

Dr. Sang Kyoon Park	Korea National Sport University, Korea	2017-2018
Liu Ren Hui	Shenyang Sport University, China	2013-2014
Dr. Young Jin Moon	Korea Institute of Sport Science, Korea	2012-2013
Dr. Ana de David	Universidade de Brasilia, Brazil	2009
Dr. Yong-Jae Kim	Pukyong National University, Korea	2009
Dr. David Pearsall	McGill University, Canada	2009
Dr. Seung-Jae Kim	Hanseo University, Korea	2004
Dr. Joong-Sook Lee	Silla University, Korea	2003-2004

COURSES TAUGHT

Kinesiology 291 – Biomechanics Research Seminar 1 (10 students)

Kinesiology 293 – Biomechanics Research Seminar 2 (10 students)

Kinesiology 263 – Biomechanics I (180 students)
Muscular and mechanical analysis of human movement.

Kinesiology 363 – Biomechanics II (320 students)
Mechanics of biological materials.

Kinesiology 463 – Biomechanical Analysis of Human Motion (20 students)
An examination of advanced techniques used in biomechanical analysis.

Kinesiology 466 – Biomechanics Research Project (8 students)
Capstone course where students complete a detailed research project.

Kinesiology 503 – Advanced Biomechanical Analysis (5 students)
Practicum research course for senior students.

Medical Science 755 – Bone and Joint Health Seminar Series (15 students)

REFEREE FOR JOURNAL PAPERS

American Journal of Sports Medicine
British Journal of Sports Medicine
Clinical Biomechanics
Clinical Journal of Sport Medicine

European Journal of Sport Sciences
International Journal of Sports Medicine
Journal of the American Podiatric Medical Association
Journal of Applied Biomechanics
Journal of Applied Physiology
Journal of Biomechanics
Journal of Biomechanical Engineering
Journal of Motor Behavior
Journal of Science and Medicine in Sport
Journal of Sports Engineering and Technology
Journal of Sport Sciences
Journal of Sport Science and Medicine
Medicine and Science in Sports and Exercise
Royal Society Biology Letters
Sports Biomechanics
Sports Engineering
Sports Medicine

REFEREE FOR GRANT APPLICATIONS

Arthritis Research Campaign
Biomedical Research Council (Singapore)
International Rugby Board
Natural Sciences and Engineering Research Council of Canada Discovery Grants
Natural Sciences and Engineering Research Council of Canada Idea to Innovation Grants
National Institute of Health – Small Business Innovation and Research
Research Foundation – Flanders (Belgium)
Medical Research Council (UK)
Whitaker Foundation for Biomedical Research

EXPERT LEGAL WORK

Nike Inc. vs Puma North America Inc.	2019
Elite Performance Footwear v. Reebok International Limited	2018
Icon Elite Group Inc. vs Blue Sports Import-Export Inc.	2018
Lyons vs Kinsel, Hunt, Shaw, Cowart, Landrey, Cowart, Rhodes, Vela et al.	2018
Nike vs adidas	2007
Roberts vs Rollerblade	1997

REFEREED PUBLICATIONS

1. Pavlovic, N., Clermont, C., Cairns, J., Williamson, R., Emery, C.A. and **Stefanyshyn, D.** (submitted) Differences in head impact biomechanics between playing positions in Canadian high school football players. *Journal of Sports Sciences*.
2. Barrons, Z. B., Esposito, M., **Stefanyshyn, D.J.** and Wannop, J.W. (submitted) The traction requirements of female and male basketball players. *Footwear Science*.
3. Wannop, J.W, Schrier, N., Wolter, M., Madden, R., Barrons, Z. and Stefanyshyn, D.J. (2023) Changes in joint power and energetics during a sport specific jumping fatigue protocol. *Applied Sciences*.
4. Park, S.K., **Stefanyshyn, D.**, Woo, J., Gil, H., Lee, J.S., Ryu, S. and Kim, J. (2022) Comparisons of age-related changes in impact characteristics between healthy older and younger runners. *International Journal of Precision Engineering and Manufacturing*. Vol. 23, 1465-1476.

5. Singh, P., Esposito, M., Barrons, Z.B., Clermont, C.A., Wannop, J.W. and **Stefanyshyn, D.J.** (2022) Utilizing data from a local positioning system as input into a neural network to determine stride length. *Sports Engineering*. Vol. 25, 16.
6. Esposito, M., Wannop, J.W. and **Stefanyshyn, D.J.** (2022) Effects of midsole cushioning stiffness on Achilles tendon stretch during running. *Scientific Reports*. Vol. 12, 4193.
7. Schrier, N., Wannop, J.W., Worobets, J.T. and **Stefanyshyn, D.J.** (2022) Influence of compliance and aging of artificial surfaces on lower extremity joint loading. *Biomechanics*. Vol. 2, 66-75.
8. Clermont, C., Barrons, Z.B., Esposito, M., Dominguez, E., Culo, M., Wannop, J.W. and **Stefanyshyn, D.** (2022 published online) The influence of midsole shear on running smoothness and performance with a 3D-printed midsole. *Sports Biomechanics*.
9. Ryu, S., **Stefanyshyn, D.**, Kong, K. and Park, S.K. (2021) Effects of a curved heel shape in a running shoe on biomechanical variables and comfort. *Applied Sciences*. Vol. 11(8), 3613.
10. Firminger, C.R., Haider, I.T., Bruce, O.L., Wannop, J.W., **Stefanyshyn, D.J.** and 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*. Vol. 25(7), 729-739.
11. Singh, P., Esposito, M., Barrons, Z.B., Clermont, C.A., Wannop, J.W. and **Stefanyshyn, D.J.** (2021) Measuring gait velocity and stride length with an ultrawide bandwidth local positioning system and an inertial measurement unit. *Sensors*, Vol. 21, 2896.
12. Cigoja, S., Fletcher, J. R., Esposito, M., **Stefanyshyn, D. J.**, Nigg, B. M. (2021). Increasing the midsole bending stiffness of shoes alters gastrocnemius medialis muscle function during running. *Scientific Reports*. Vol. 11, 749.
13. Wannop, J., Kowalchuk, S., Esposito, M. and **Stefanyshyn, D.** (2020) Influence of artificial turf surface stiffness on athlete performance. *Life* 2020, Vol. 10, 340.
14. Wannop, J.W., Schrier, N., Worobets, J. and **Stefanyshyn, D.** (2020) Influence of forefoot bending stiffness on American football performance and metatarsophalangeal joint bending angle. *Sports Biomechanics*
15. Azevedo, R.R., Nery, S.B., **Stefanyshyn, D.J.** and Carpes, F.P. (2020) Plantar loading in the youth soccer player during common soccer movements and risk for foot injury. *Injury*. Vol. 51(8), 1905-1909.
16. Lewinson, R.T. and **Stefanyshyn, D.J.** (2019) Effect of a commercially available footwear insole on biomechanical variables associated with common running injuries. *Clinical Journal of Sport Medicine*. Vol. 29(4), 341-343.
17. Park, S.K., Gil, H., Ryu, S. and **Stefanyshyn, D.** and Ryu, J. (2019) The effect of running shoe midsole hardness on foot biomechanics. *Sport Science*. Vol. 37(1), 73-83.
18. Firminger, C.R., Bruce, O.L., Wannop, J.W., **Stefanyshyn, D.J.** and Edwards W.B. (2019). Effect of shoe and surface stiffness on lower limb tendon strain in jumping. *Medicine and Science in Sports and Exercise*. Vol. 51(9), 1895-1903
19. Bruce, O.L., Firminger, C.R., Wannop, J.W., **Stefanyshyn, D.J.** and Edwards, W.B. (2019) Effects of basketball court construction and shoe stiffness on countermovement jump landings. *Footwear Science*. Vol. 11(3), 171-179
20. Wannop, J.W., Foreman, T., Madden, R. and **Stefanyshyn, D.J.** (2019) Influence of the composition of artificial turf on rotational traction and athlete biomechanics. *Journal of Sports Sciences*, Vol. 37(16), 1849-

1856.

21. Park, S.K., Jeon, H.M., Lam, W.K., **Stefanyshyn, D.** and Ryu, J. (2019) The effects of downhill slope on kinematics and kinetics of lower extremity joints during running. *Gait & Posture*. Vol. 68, 181-186.
22. Wannop, J.W., **Stefanyshyn, D.J.**, Anderson, R., Coughlin, M. and Kent, R. (2019) The development of a football-specific footwear sizing system and its deployment for fitting gameday shoes in the National Football League. *Sports Health*. Vol. 11(1), 40-46.
23. Peterson Silveira, R., Stergiou, P., Figueiredo, P., de S. Castro, F. and **Stefanyshyn, D.J.** (2018) Key determinants of time to 5 m in different ventral swimming start techniques. *European Journal of Sports Science*. Vol. 18(10), 1317-1326.
24. Firminger, C., Vernillo, G., Savoldelli, A., **Stefanyshyn, D.**, Millet, G.Y. and Edwards, W.B. (2018) Joint kinematics and ground reaction forces in overground versus treadmill graded running. *Gait and Posture*. Vol. 63, 109-113.
25. Lewinson, R.T., Madden, R., Killick, A., Wannop, J.W., Wiley, J.P., Lun, V.M.Y., Patel, C., LaMothe, J.M. and **Stefanyshyn, D.J.** (2018) Foot structure and knee joint kinetics during walking with and without wedged footwear insoles. *Journal of Biomechanics*. Vol. 73, 192-200
26. Piucco, T., Bini, R., Sakaguchi, M., Diefenthaler, F. and **Stefanyshyn, D.J.** (2017) Motor unit firing frequency of lower limb muscles during an incremental slide board skating test. *Sports Biomechanics*. Vol. 16(4), 540-551.
27. De Britto, M.A., Lemos, A.L., dos Santos, C.S., **Stefanyshyn, D.J.** and Carpes, F.P. (2017) Effect of a compressive garment on kinematics of jump-landing tasks. *Journal of Strength and Conditioning Research*. Vol 31(9), 2480-2488.
28. Macauley, C., Katz, L., Stergiou, P., **Stefanyshyn, D.** and Tomaghelli, L. (2017) Kinematic and kinetic analysis of overhand, sidearm, and underhand lacrosse shot techniques. *Journal of Sport Sciences*, Vol. 35(23), 2350-2356.
29. Wannop, J.W., Killick, A., Madden, R. and **Stefanyshyn, D.J.** (2017) The influence of gearing footwear on running biomechanics. *Footwear Science*, Vol. 9(2), 111-119.
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92. **Stefanyshyn, D.J.** (2007) Joint moments and lower extremity injury – the influence of footwear and orthotics. *Abstracts of the 5th Staffordshire Conference on Clinical Biomechanics*, 8-9
93. Worobets, J. T. and **Stefanyshyn, D.J.** (2006) Influences of equipment and athlete on shooting speed in ice hockey. Abstracts of the XIVth Biennial Conference for the Canadian Society for Biomechanics, 58.
94. **Stefanyshyn, D.J.** (2006) The influence of football cleat design on joint loading. Abstracts of the 11th annual Congress of the European College of Sport Science, 224.
95. **Stefanyshyn, D.J.** (2006) Angular impulse and patellofemoral pain in runners. Abstracts of the 5th World Congress of Biomechanics, *Journal of Biomechanics*, Vol. 39, Supp. 1, S173-S174.
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101. Nigg, B.M., **Stefanyshyn, D.**, Cole, G. and Boyer, K. (2005) Footwear research – past, present, future. *Proceedings of the 7th Symposium on Footwear Biomechanics*, 15-16.
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105. Worobets, J.T. and **Stefanyshyn, D.J.** (2005) Normalizing vertical ground reaction force peaks to body weight in heel-toe running. *Proceedings of the 7th Symposium on Footwear Biomechanics*, 132-133.

106. **Stefanyshyn, D.J.**, Worobets, J.T. and Anderson, B. (2004) Footwear that allows relative horizontal movement between the foot and outsole reduces knee joint moments during running. *Proceedings of the 28th Annual Conference of the American Society of Biomechanics*
107. **Stefanyshyn, D.J.** (2004) Sport equipment-energy and performance. *Proceedings of the 2004 International Sport Science Congress*.
108. **Stefanyshyn, D.J.**, Lee, J.S., Park, S.K. and Savage, L. (2004) The influence of soccer cleat design on knee joint moments. *Proceedings of the 13th Biennial Conference for the Canadian Society for Biomechanics*, 63.
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111. **Stefanyshyn, D.J.** (2003) Mechanisms of Overuse Injuries in Sports. *Proceedings of the VIIth IOC Olympic World Congress on Sport Sciences*, 4E.
112. Van Horne, S. and **Stefanyshyn, D.J.** (2003) Mechanical effects of a modified point of foot rotation during the speed skating push. *Proceedings of the International Society of Biomechanics XIXth congress*.
113. **Stefanyshyn, D.J.** (2003) Technology and speed skating performance. *Book of abstracts of the 8th Annual Congress of the European College of Sport Science*, 321-322.
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115. **Stefanyshyn, D.J.**, Stergiou, P., Nigg, B.M., Rozitis, A.I. and Goepfert, B. (2003) Do females require different running footwear? *Proceedings of the Sixth Symposium on Footwear Biomechanics*, 91-92.
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121. Van Horne, S., and **Stefanyshyn, D.** (2002) Application of a modified slide board for speed skate analysis. *Proceedings of the VIIIth EMED Scientific Meeting*.

122. Roy, J-P. R. and **Stefanyshyn, D.** (2002) Influence of the metatarsophalangeal joint bending and shoe sole length on jump height performance. *Proceedings of the Fourth World Congress of Biomechanics*.
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124. Van Horne, S., **Stefanyshyn, D.** and Morey-Sorrentino, R. (2002) Mechanical and performance aspects of a new speed skate design. *Proceedings of the Fourth World Congress of Biomechanics*.
125. **Stefanyshyn, D.J.**, Baroud, G. and Nigg, B.M. (2001) The potential of structured surfaces. *Book of Abstracts of the 6th Annual Congress of the European College of Sport Science*, 90.
126. Nigg, B.M., **Stefanyshyn, D.J.** and Cole, G. (2001) Work and energy during locomotion. *Book of Abstracts of the 6th Annual Congress of the European College of Sport Science*, 27.
127. **Stefanyshyn, D.J.** and Fusco, C. (2001) Increased bending stiffness increases sprint performance. *Proceedings of the International Society of Biomechanics XVIIIth Congress*, 10.
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130. **Stefanyshyn, D.J.**, Stergiou, P., Lun, V.M.Y. and Meeuwisse, W.H. (2001) Dynamic variables and injuries in running. *Proceedings of the Fifth Symposium on Footwear Biomechanics*, 74-75.
131. Mündermann, A., Nigg, B.M., **Stefanyshyn, D.J.** and Humble, R.N. (2001) A reliable measure to assess footwear comfort. *Proceedings of the Fifth Symposium on Footwear Biomechanics*, 64-65.
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133. Hau, A., **Stefanyshyn, D.J.** and Nigg, B.M. (2000) Anthropometric and sensory factors influence perception of footwear comfort. *Abstracts of the XXVth Congress of the Societe de Biomecanique and the XIth Congress of the Canadian Society for Biomechanics*, 12.
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137. Schwameder, H., Nigg, B.M., v. Tschärner, V. and **Stefanyshyn D.** (2000) The effect of ski binding position on kinetic variables in alpine skiing. *Abstract book of the 2nd International Congress on Skiing and Science*, 10-11.
138. Baroud, G., **Stefanyshyn, D.J.** and Bellchamber, T. (1999) Performance enhancement of hockey sticks using numerical simulations. *Proceedings of the International Society of Biomechanics XVIIth Congress*, 827.

139. **Stefanyshyn, D.J.** and Nigg, B.M. (1999) Influence of midsole bending stiffness on joint energy and jump height performance. *Proceedings of the International Society of Biomechanics XVIIth Congress*, 236.
140. Stergiou, P., **Stefanyshyn, D.J.**, Nigg, B.M., Lun, V.M.Y., and Meeuwisse, W.H. (1999) Knee joint loading and patellofemoral pain syndrome in runners: *Proceedings of the International Society of Biomechanics XVIIth Congress*, 306.
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143. Baroud, G., Nigg, B.M. and **Stefanyshyn, D.J.** (1999) Can athletic performance be enhanced by sport surfaces and sport shoes? *Proceedings of the International Society of Biomechanics XVIIth Congress*, 237.
144. Schollhorn, W.I., **Stefanyshyn, D.J.**, Nigg, B.M. and Liu, W. (1999) The effect of shoe heel height on walking patterns of females. *Proceedings of the International Society of Biomechanics XVIIth Congress*, 255.
145. **Stefanyshyn, D.J.**, Stergiou, P., Lun, V.M.Y., Meeuwisse, W.H. and Nigg, B.M. (1999) Knee joint moments and patellofemoral pain syndrome in runners Part I: A case control study, Part II: A prospective cohort study. *Proceedings of the Fourth Symposium on Footwear Biomechanics*, 86-87.
146. Baroud, G., Goerke, U.J., Guenther, H., **Stefanyshyn, D.J.**, Miller, J.E. and Nigg, B.M. (1999) A non-linear hyperelastic finite element model of energy return enhancement in sport surfaces and shoes. *Proceedings of the Fourth Symposium on Footwear Biomechanics*, 18-19.
147. **Stefanyshyn, D.J.** and Nigg, B.M. (1998) The influence of visco-elastic midsole components on the biomechanics of running. *Abstracts of the Third World Congress of Biomechanics*, 379.
148. Lee, S., **Stefanyshyn, D.J.** and Nigg, B.M. (1998) Dynamic characterization of relative forefoot abduction. *Proceedings of the Third North American Congress on Biomechanics*, 139-140.
149. Nurse, M. A., Nigg, B.M., **Stefanyshyn, D.J.**, Liu, W. and Miller, J.E. (1998) Differences in the sensation of the plantar surface of the human foot. *Proceedings of the Third North American Congress on Biomechanics*, 145-146.
150. Miller, J.A., Nigg, B.M., **Stefanyshyn, D.J.** (1998) In/eversion measurement differences using different markers on the shoe and foot. *Proceedings of the Third North American Congress on Biomechanics*, 445-446.
151. Sasse, M., Nigg, B.M. and **Stefanyshyn D.** (1998) The influence of ankle fractures and deltoid ligament transection on the tibiotalar joint movement during dorsiflexion/plantarflexion. *Transactions of the 44th Annual Meeting of the Orthopaedic Research Society*, 724.
152. **Stefanyshyn, D.J.**, Nigg, B.M., Khan, A. and Fisher, V. (1997) Shoe insert construction influences foot and leg movement. *Proceedings of the Third Symposium on Footwear Biomechanics*, 28-29.
153. Lee, S., Muller, C., **Stefanyshyn, D.**, Nigg, B.M. and Freychat, P. (1997) Forefoot abduction and its relation to changes in foot length. *Proceedings of the Third Symposium on Footwear Biomechanics*, 70.
154. **Stefanyshyn, D.J.** and Nigg, B.M. (1996) Mechanical energy of the metatarsophalangeal joint in sport activities. *Proceedings of the 9th Biennial Conference of the Canadian Society for Biomechanics*, 276-277.

155. **Stefanyshyn, D.** (1995) The spring-like nature of the ankle joint during running and sprinting. *Proceedings of the Third IOC World Congress on Sport Sciences*, 90-91.
156. **Stefanyshyn, D.J.** and Engsborg, J.R. (1994) Right to left differences of ankle joint complex range of motion (abstract). *Journal of Biomechanics*, Vol. 27 (6), 816.
157. **Stefanyshyn, D.**, Engsborg, J., Tedford, K., and Harder, J. (1994) A method to determine the influence of prosthetic features in preventing below-knee amputees from walking like able-bodies. *Proceedings of the 8th Biennial Conference of the Canadian Society for Biomechanics*, 52-53.
158. **Stefanyshyn, D.J.** and Engsborg, J.R. (1993) Right to left differences of ankle joint complex range of motion. *Proceedings of the International Society of Biomechanics XIV Congress*, 1284-1285.

PRESENTATIONS

1. Edwards, W.B., Firminger, C., Bruce, O., Wannop, J.W. and **Stefanyshyn, D.J.** (2018) *Invited Speaker* Effect of shoe and surface stiffness on tendon strain during jump landings. NBA Health and Safety Meeting, NY, USA.
2. **Stefanyshyn, D.J.** (2018) *Keynote Speaker* Prescription of specialized footwear for individuals with knee osteoarthritis. Eighth Brazilian Symposium on Footwear Biomechanics. Novo Hamburgo, Brazil.
3. **Stefanyshyn, D.J.** (2016) *Keynote Speaker* Athlete-equipment interaction. 34th International Conference on Biomechanics in Sports. Tsukuba, Japan.
4. **Stefanyshyn, D.J.** (2016) *Keynote Speaker* Towards understanding footwear traction. Seventh Brazilian Symposium on Footwear Biomechanics. Novo Hamburgo, Brazil.
5. **Stefanyshyn, D.J.** (2016) *Invited Speaker* Footwear Biomechanics – Where do we go from here? Federal University of ABC, Sao Paulo, Brazil.
6. **Stefanyshyn, D.J.** (2015) *Keynote Speaker* Footwear Biomechanics – Where do we go from here? 12th Biennial Footwear Biomechanics Symposium, Liverpool, UK.
7. **Stefanyshyn, D.J.** and Lewinson, R.T. (2015) Biomechanical control conditions for footwear insole and orthotic research. 8th Biennial Footwear Biomechanics Symposium, Liverpool, UK.
8. **Stefanyshyn, D.J.** (2014) *Keynote Speaker* Biomechanics research and equipment development in sport. The Engineering of Sport 10, Sheffield, UK.
9. **Stefanyshyn, D.J.** (2013) *Keynote Speaker* Biomechanics research and equipment development in sport. German Association for Sport Science Meeting, Chemnitz, Germany.
10. **Stefanyshyn, D.J.** (2012) *Keynote Speaker* Walking biomechanics and walking shoes. 2012 Pedorthic Association of Canada Symposium. Whistler, Canada.
11. **Stefanyshyn, D.J.** (2012) *Invited Speaker* Medial vs lateral wedging. 2012 Pedorthic Association of Canada Symposium. Whistler, Canada.
12. **Stefanyshyn, D.J.** (2011) *Keynote Speaker* Assessing 3D kinematics of human movement to avoid injuries and improve performance. 2nd Symposium on Applied Neuromechanics. Santa Maria, Brazil.
13. **Stefanyshyn, D.J.** (2011) *Invited Speaker* Biomechanics of Running Shoes. Universidade de Sao Paulo, Paulo, Brazil.

14. **Stefanyshyn, D.J.** (2011) *Keynote Speaker* Footwear comfort - relation to injury. Busan International Smart Shoe and Parts Fair. Busan, Korea.
15. **Stefanyshyn, D.J.** (2011) *Invited Speaker* Running shoe technology. Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil
16. **Stefanyshyn, D.J.** (2011) *Invited Speaker* Biomechanics of Running Shoes. Fundacao Armando Alvares Penteado University, Sao Paulo, Brazil.
17. **Stefanyshyn, D.J.** (2010) *Keynote Speaker* Sport biomechanics: equipment and performance. 34th Annual Meeting of the American Society of Biomechanics. Providence, USA.
18. **Stefanyshyn, D.J.** (2010) *Keynote Speaker* Biomechanics of performance footwear. 2010 International Conference of Korean Society of Sport Biomechanics. Busan, Korea.
19. **Stefanyshyn, D.J.** (2010) *Invited Speaker* Running shoe technology. University of Brasilia. Brasilia, Brazil.
20. **Stefanyshyn, D.J.** (2010) *Keynote Speaker* Walking Biomechanics and Walking Shoes. Seventh Brazilian Symposium on Footwear Biomechanics. Novo Hamburgo, Brazil.
21. **Stefanyshyn, D.J.** (2010) *Keynote Speaker* Graduate Studies in Kinesiology at the University of Calgary. The 2nd International Sport Science Symposium on Active Life. Tokyo, Japan.
22. **Stefanyshyn, D.J.** (2009) *Invited Symposia Speaker* The Influence of Soccer Cleat Design on Joint Moments. 9th Biennial Footwear Biomechanics Symposium. Stellenbosch, South Africa.
23. **Stefanyshyn, D.J.** (2009) *Keynote Speaker* Walking Biomechanics and Walking Shoes. Busan International Footwear & Leather Show. Busan, Korea
24. **Stefanyshyn, D.J.** (2009) *Invited Speaker* Basic Running Research and Footwear Development. ASTM Annual meeting. Vancouver, Canada.
25. **Stefanyshyn, D.J.** (2009) *Invited Speaker* Shoe Technology. Runners Edge 2009: Calgary's Running Expo, Calgary, Canada.
26. **Stefanyshyn, D.J.** (2008) *Keynote Speaker* Sports Equipment Energy and Performance? 3rd Congress of the Hellenic Society of Biomechanics. Athens, Greece.
27. **Stefanyshyn, D.J.** (2008) *Invited Speaker* Sport biomechanics, equipment innovation, performance and injury. University of Chemnitz, Germany.
28. **Stefanyshyn, D.J.** (2008) *Keynote Speaker* Can footwear influence sport performance? Sixth Brazilian Symposium on Footwear Biomechanics. Novo Hamburgo, Brazil.
29. **Stefanyshyn, D.J.** (2008) *Keynote Speaker* Is footwear comfort related to injury? Sixth Brazilian Symposium on Footwear Biomechanics. Novo Hamburgo, Brazil.
30. **Stefanyshyn, D.J.** (2008) *Invited Speaker* Sport biomechanics, equipment innovation, performance and injury. Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil
31. **Stefanyshyn, D.J.** (2007) *Invited Speaker* Knee angular impulse as a predictor of patellofemoral pain in runners. 10th Annual International Conference on Foot Biomechanics & Orthotic Therapy. San Diego, USA.
32. **Stefanyshyn, D.J.** (2007) *Keynote Speaker* Can footwear affect sport performance? 8th Biennial Footwear Biomechanics Symposium, Taipei, Taiwan.

33. **Stefanyshyn, D.J.** (2007) *Keynote Speaker* From strain to pain, a movement too far? The aetiology of chronic overuse injuries in athletes. 5th Staffordshire Conference on *Clinical Biomechanics*, Stoke-on-Trent, UK.
34. **Stefanyshyn, D.J.** (2007) *Keynote Speaker* Joint moments and lower extremity injury – the influence of footwear and orthotics. 5th Staffordshire Conference on *Clinical Biomechanics*, Stoke-on-Trent, UK.
35. **Stefanyshyn, D.J.** (2007) *Invited Speaker* Sports equipment, energy and performance. Loughborough University Wolfson School Seminar, Loughborough, UK.
36. **Stefanyshyn, D.J.** (2006) *Keynote Speaker* Player surface interactions: injury and performance. SportSurf 3rd Workshop, Exeter, UK.
37. **Stefanyshyn, D.J.** (2006) *Keynote Speaker* Biomechanical development and evaluation of functional sports footwear. Busan International Footwear & Leather Show, Busan, Korea.
38. **Stefanyshyn, D.J.** (2006) *Invited Speaker* Sports equipment – energy and performance. Silla University, Busan, Korea.
39. **Stefanyshyn, D.J.** (2006) *Invited Speaker* Sport equipment innovation - performance and injury. Korean National Sport University, Seoul, Korea.
40. **Stefanyshyn, D.J.** (2006) *Invited Symposia Speaker* Has biomechanics decreased lower extremity injuries in sports? XIVth Biennial Conference for the Canadian Society for Biomechanics, Waterloo, Canada.
41. **Stefanyshyn, D.J.** (2006) *Keynote Speaker* Sports equipment – energy and performance. XXIVth International Symposium on Biomechanics in Sports, Salzburg, Austria.
42. **Stefanyshyn, D.J.** (2006) *Invited Symposia Speaker* The influence of ground control footwear on knee joint moments during running. XXIVth International Symposium on Biomechanics in Sports, Salzburg, Austria.
43. **Stefanyshyn, D.J.** (2006) *Keynote Speaker* Footwear traction and knee joint moments. 5th World Congress of Biomechanics, Munich, Germany.
44. **Stefanyshyn, D.J.** and Worobets, J.T. (2006) *Invited Symposia Speaker* Energy return of hockey sticks and puck speed. 5th World Congress of Biomechanics, Munich, Germany.
45. **Stefanyshyn, D.J.** (2006) *Invited Symposia Speaker* Angular impulse and patellofemoral pain in runners. 5th World Congress of Biomechanics, Munich, Germany.
46. **Stefanyshyn, D.J.** (2006) *Invited Symposia Speaker* The influence of football cleat design on joint loading. 11th annual Congress of the European College of Sport Science, Lausanne, Switzerland.
47. **Stefanyshyn, D.J.**, (2005) *Invited Speaker* Joint moments and lower extremity injury – the influence of footwear and orthotics. Pedorthic Association of Canada Symposium – Biomechanics: moving forward. Calgary, Canada.
48. **Stefanyshyn, D.J.**, Lee, J.S., Park, S.K. and Savage, L. (2004) *Invited Symposia Speaker* The influence of soccer cleat design on knee joint moments. 13th Biennial Conference for the Canadian Society for Biomechanics, Halifax, Canada.
49. **Stefanyshyn, D.J.** (2004) *Keynote Speaker* Shoe bending stiffness affects running, sprinting and jumping performance. The Second Korea Footwear Biomechanics Symposium, Busan, Korea.
50. **Stefanyshyn, D.J.** (2004) *Keynote Speaker* Running shoes – do impact forces and pronation cause running injuries? The Second Korea Footwear Biomechanics Symposium, Busan, Korea.

51. **Stefanyshyn, D.J.** (2004) *Invited Speaker* Joint loading and injury prevention in sports. Korean Sport Science Institute, Seoul, Korea.
52. **Stefanyshyn, D.J.** (2004) *Invited Speaker* Sport equipment-energy and performance. 2004 International Sport Science Congress, Daejeon, Korea.
53. **Stefanyshyn, D.J.** (2004) *Invited Speaker* Knee joint moments – a potential factor in running injuries? University of Massachusetts Department of Exercise Science Seminar Series, Amherst, USA.
54. **Stefanyshyn, D.J.**, Worobets, J.T. and Anderson, B. (2004) *Invited Symposia Speaker* Footwear that allows relative horizontal movement between the foot and outsole reduces knee joint moments during running. 28th Annual Conference of the American Society of Biomechanics, Portland, USA.
55. **Stefanyshyn, D.J.** and Nigg, B.M. (2003) *Invited Speaker* Energy and performance aspects in sports surfaces. 3rd Calgary Symposium on Sport Surfaces, Calgary, Canada.
56. **Stefanyshyn, D.J.** (2003) *Invited Speaker* Joint moments, sport surfaces and sport injuries. 3rd Calgary Symposium on Sport Surfaces, Calgary, Canada.
57. **Stefanyshyn, D.J.** (2003) *Invited Speaker* Mechanisms of Overuse Injuries in Sports. VIIth IOC Olympic World Congress on Sport Sciences, Athens, Greece.
58. **Stefanyshyn, D.J.** (2003) *Invited Symposia Speaker* Technology and speed skating performance. 8th Annual Congress of the European College of Sport Science, Salzburg, Austria.
59. **Stefanyshyn, D.J.**, Stergiou, P., Nigg, B.M., Rozitis, A.I. and Goepfert, B. (2003) Do females require different running footwear? *Sixth Symposium on Footwear Biomechanics*, Queenstown, New Zealand.
60. **Stefanyshyn, D.J.**, Stergiou, P., Nigg, B.M., Rozitis, A.I. and Goepfert, B. (2003) Do pronators pronate? *Sixth Symposium on Footwear Biomechanics*, Queenstown, New Zealand.
61. **Stefanyshyn, D.J.** and Krell, J.R. (2002) *Invited Symposia Speaker* The influence of the metatarsophalangeal joint on sprinting performance. *6th IOC World Congress on Sport Sciences*, St. Louis, USA.
62. **Stefanyshyn, D.J.** and Van Horne, S.M. (2002) *Invited Symposia Speaker* The influence of klapskate hinge position on long track speed skating performance. *6th IOC World Congress on Sport Sciences*, St. Louis, USA.
63. **Stefanyshyn, D.J.**, Stergiou, P., Lun, V.M.Y. and Meeuwisse, W.H. (2002) *Invited Symposia Speaker* Lower extremity mechanics in runners with patellofemoral joint pain. *49th Annual Meeting of the American College of Sports Medicine*, St. Louis, USA.
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281. Lee, S., **Stefanyshyn, D.J.**, Nigg, B.M. and van der Vlist, I. (1997) Forefoot ab/adduction and arch dynamics in vivo. *Research report for Decathlon Production Footwear Department.*
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295. Nigg, B.M., Hawes, M.R. and **Stefanyshyn, D.J.** (1996) Foot comfort. Chapter in a *Research report for adidas America Research and Innovation*.
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300. **Stefanyshyn, D.J.** and Nigg, B.M. (1994) Frictional testing for selected playing surfaces. *Research/testing report for Mondo International*.
301. **Stefanyshyn, D.J.**, Nigg, B.M., and Kim, S. (1994) Surface testing McGill University. *Research Report for Johnston Sport Architecture*.
302. Wiley, J.P., Nigg, B.M., Estabrooks, P., and **Stefanyshyn, D.** (1994) Passive and active range of motion reduction by the MALLEOLOC ankle orthosis. *Chapter in a Research Report for Bauerfeind GmbH & Co.*
303. Nigg, B.M., Fisher, V., Hamilton, G., Nigg, C.R., Reinschmidt, C., and **Stefanyshyn, D.** (1994) Malleoloc-Prototype. *Research report for Bauerfeind GmbH & Co.*
304. Nigg, B.M., Fisher, V., Hamilton, G., Nigg, C.R., Reinschmidt, C., **Stefanyshyn, D.**, and Reinhart, H. (1994) Product development for the Malleoloc ankle orthosis. *Product development report for Bauerfeind GmbH & Co.*
305. Gerritsen, K., Nigg, B.M., de Koning, J., and **Stefanyshyn, D.** (1993) Surface properties of selected area-elastic indoor surfaces measured in two directions. *Research Report for Robbins Inc.*

FUNDING OBTAINED

2020 Mitacs Accelerate \$15,000

Principal Applicant – Validation of a Weighted Wearable Training System for Hockey Skating

2019 Philanthropic Donation - \$150,000

Principal Applicant – Biomechanics Capital Fund

2019-2024 NSERC Discovery – \$216,600

Principal Applicant – External Perturbations and Internal Mechanisms of Locomotor Performance

2019-2020 NSERC Collaborative Research and Development – Fieldturf Inc. \$226,600

Principal Applicant – Optimizing Artificial Turf

2019-2020 Mitacs Accelerate \$60,000

Principal Applicant – Determining position, speed and stride length using machine learning with sensor fusion based on ultrawideband local positioning system technology

2018 NSERC Discovery \$29,000

Principal Applicant – External Perturbations and Internal Mechanisms of Locomotor Performance

2018 NSERC Connect \$3,508

Principal Applicant - Biomechanically Correct Human Movement Simulation for Gaming

2018-2024 NSERC Create \$1,650,000

Co-Applicant – Wearable Technology Research and Collaboration (We-TRAC) Training Program

2018 adidas International \$200,000

Principal Applicant – Performance Footwear

2017 NSERC Engage – XCo \$25,000

Principal Applicant - Real-time position monitoring Using Ultrawide Band Radio Frequency Wearable Sensors

2017 World Rugby \$85,000

Principal Applicant - The Influence of Footwear Traction on Biomechanical Injury Risk in Rugby

2017 NSERC Engage Plus – Fieldturf \$17,500

Principal Applicant - Influence of the composition of artificial turf on rotational traction and athlete biomechanics

2017 Fox/Head \$100,000

Principal Applicant – Development of Motocross Footwear

2017 adidas International \$200,000

Principal Applicant – Performance Footwear

2016 NBA & GE Orthopedics and Sports Medicine Collaboration \$138,521 USD

Co-applicant -Towards the Real-time Monitoring of Tendon Strain and Cumulative Damage to Minimize the Risk of Patellar Tendinopathy

2016 Reebok \$15,000 USD

Principal Applicant – Mixed Martial Arts Performance Quantification

2016 TaylorMade adidas Golf \$32,500

Principal Applicant – Shaft Flex Profiles, Shaft Mass and Golf Performance

2016 adidas International \$200,000

Principal Applicant – Performance Footwear

2016 NSERC Engage – Fieldturf \$25,000

Principal Applicant - Influence of the Composition of Artificial Turf on Rotational Traction and Athlete Biomechanics

2016 Xtep International \$50,000

Principal Applicant – Reactive Compression

2014-2015 adidas International \$400,000

Principal Applicant – Performance Footwear

2014 TaylorMade adidas Golf \$32,500

Principal Applicant – Sparta Footwear Assessment

2014 Korea Footwear Institute \$20,000

Principal Applicant – Hiking Shoe Research and Development

2014 Ariat International Inc \$50,000

Principal Applicant – Functional Properties of Western and English Riding Boots

2013 NSERC Collaborative Research and Development – Marks Work Wearhouse \$110,000

Principal Applicant – Improving Shoe Fit for Canadian Feet

2013 adidas International \$100,000

Principal Applicant – Performance Footwear

2013 TaylorMade adidas Golf - \$32,500

Principal Applicant – Golf Footwear Traction

2012 adidas International \$100,000

Principal Applicant – Performance Footwear

2012 TaylorMade adidas Golf \$32,500

Principal Applicant – Golf Club Length and Performance

2011 Hollogenix LLC \$40,000

Principal Applicant – Celliant Apparel

2011 Marks \$30,000

Principal Applicant – Toning Footwear

2011 Korea Footwear Institute \$30,000

Principal Applicant – Kolon Sport Hiking Shoe Development

2011 TaylorMade adidas Golf \$32,500

Principal Applicant – Properties of High Handicap Golfers

2011 adidas International \$100,000

Principal Applicant – Performance Apparel

2010 TaylorMade adidas Golf \$32,500

Principal Applicant – Properties of Long Drivers

2010 adidas International \$95,000

Principal Applicant – Performance Footwear

2010 Marks Work Wearhouse \$25,000

Principal Applicant – Grip Standards for Anti-slip Gloves

2009 Natural Sciences and Engineering Research Council of Canada \$100,000

Principal Applicant – Supplementing Joint Stiffness During Human Locomotion

2009 Marks Work Wearhouse \$30,000

Principal Applicant – Anti Slip Footwear on Ice

2009 adidas International \$50,000

Principal Applicant – Elastic and Compressive Apparel

2009 Korea Footwear Institute \$35,000

Principal Applicant – Walking Footwear Evaluation

2009 adidas International \$18,500

Principal Applicant – Sprint Shoe Performance

2009 adidas International \$95,000

Principal Applicant – Performance Footwear

2008 adidas International \$75,000

Principal Applicant – Performance Footwear and Apparel

2008 Own the Podium – Top Secret 2010 \$21,000

Principal Applicant – Skate Blade Klap Revolution

2008 Own the Podium – Top Secret 2010 \$44,000

Principal Applicant – Elastic Energy Return Suit Development

2008 TaylorMade adidas Golf \$32,500

Principal Applicant – Control Strategies in Golf

2007 Marks Work Wearhouse \$100,000

Principal Applicant – Anti Slip Footwear

2007 adidas International \$75,000

Principal Applicant – Performance Footwear and Apparel

2007 Korea Footwear Institute \$30,000

Principal Applicant – Taekwondo Footwear

2007 Olympic Oval High Performance Fund \$14,000

Principal Applicant – Subject Specific Alpine Ski Selection

2007 Own the Podium – Top Secret 2010 \$42,000

Principal Applicant – Sledge Hockey Development

2007 Own the Podium – Top Secret 2010 \$16,000

Principal Applicant – Luge Research and Development

2007 Olympic Oval High Performance Fund \$16,600

Principal Applicant – Torque Driven Mathematical Model to Predict Subject Specific Klapskate Hinge Position

2006 TaylorMade adidas Golf \$40,000

Principal Applicant – EMG and Golfer Club Preference

2006 Own the Podium – Top Secret 2010 \$35,000

Principal Applicant – The Double Push Speed Skating Technique

2006 Own the Podium – Top Secret 2010 \$25,000

Principal Applicant – Performance Apparel – Proof of Concept

2006 Hammerhead Innovations Inc. \$72,000

Principal Applicant – Development of a Bicycle Seat Supplement

2005 Canadian Sport Centre \$118,000

Principal Applicant – Data Collection Systems for High Performance Sport

2004 TaylorMade adidas Golf \$180,000 (in-kind)

Principal Applicant – Golf Swing Kinematics and Golf Club Characteristics

2004 Kolonsport Corp. \$40,000

Principal Applicant – Hiking Footwear

2004 Kolonsport Corp. - \$20,000

Principal Applicant – Energy Return in Hiking Boots

2004 National Hockey League \$25,000

Principal Applicant – The Relationship between Energy Return and Puck Speed in Composite Sticks

2003 National Hockey League \$75,000

Principal Applicant – Evaluation of Current and Proposed Hockey Stick Designs

2003 Canadian Institute of Health Research New Emerging Team \$1,515,000

Co-applicant – Gender Influences on Musculoskeletal Health Across the Lifespan

2003 Department of National Defense \$69,500

Principal Applicant – Moldable Boot Inserts

2003 Olympic Oval High Performance Fund \$1,730

Principal Applicant – The Influence of Blade Curvature on Short Track Speed Skating Performance

2002 Korean Research Foundation \$54,000

Co-principal Applicant - Plantar Fasciitis and Arch Strain

2001 International Olympic Committee \$36,750

Principal Applicant – The Influence of Klapskate Hinge Position on Long-track Speed Skating Performance

2001 University of Calgary Olympic Oval \$15,000

Principal Applicant – The Influence of Speed Skate Design on Long-track Speed Skating Performance

2001 Department of National Defense \$79,411

Co-principal Applicant – Correlation of Comfort with Newly Developed Footwear Inserts

2001 Olympic Oval Endowment Fund \$5,000

Principal Applicant – Performance Aspects of New Speed Skate Designs

2000 Olympic Oval Endowment Fund \$4,000

Principal Applicant – Lean Angle and Push-off Forces in Short Track Speed Skate Cornering

2000 Alberta Heritage Foundation for Medical Research Travel Grant \$1,350

Principal Applicant – The Relationship Between Impact Forces and Running Injuries

1999 University of Calgary Curriculum Redesign Fellowship \$5,000

Principal Applicant – Biomechanics Undergraduate Curriculum Redesign

1999 International Olympic Committee \$58,320

Principal Applicant – Relationship Between Energy Produced and Lost in Joints on Sprinting Performance

1999 University of Calgary Starter Grant \$7,260

Principal Applicant - The Mechanical Energetics of Athletic Performance

1999 Department of National Defense \$85,989

Co-principal Applicant – Comfort of Inserts

1998 Intellectual Infrastructure Partnership Program \$49,000

Principal Applicant – Video Based Analysis of Human Movement

1998 Research Excellence Envelope Award \$31,845

Principal Applicant – The Influence of Mechanical Energy Aspects on Athletic Performance

1995 University of Calgary Thesis Research Grant \$1,500

Principal Applicant – The Influence of the Metatarsal/phalangeal Joint in Athletic Activities

1995 University of Calgary Graduate Conference Travel Grant \$700

Principal Applicant – The Spring Like Nature of the Ankle Joint During Running and Sprinting

1994 Olympic Oval Endowment Fund \$5,800

Principal Applicant – Analysis of the Effect of Different Mechanical Properties of Sport Surfaces on the Adaptation of the Lower Extremities