

July 2020

Curriculum Vitae

J. Kevin Shoemaker, Ph.D.

Professor, Kinesiology

Distinguished University Professor

Canada Research Chair, Tier 1: Integrative Physiology and Exercise and Health

Fellow of the Canadian Academy for Health Sciences

Director: Laboratory for Brain and Heart Health and Neurovascular Research Laboratory

President: International Society for Autonomic Neuroscience (2015-2017)



NAME: J. Kevin Shoemaker

RANK: Professor

DATE TENURED: July 1, 2005

DATE PROMOTED TO FULL PROFESSOR: July 1, 2011



EDUCATION:

Degree	University	Department	Year
B.A.	Wilfrid Laurier	Phys. Ed./Psych	1990
M.Sc.	Waterloo	Kinesiology	1992
Ph.D.	Waterloo	Kinesiology	1996
Post-Doctoral	Pennsylvania State	Cardiology	1998

EMPLOYMENT HISTORY:

Date	Rank and Position	Department	Institution
1992-1996	Senior Laboratory Demonstrator	Sports Medicine	University of Waterloo
1996-1998	Post-Doctoral	Cardiology	Penn State College of Med.
1998-1999	Asst. Professor	Cardiology	Penn State College of Med.
1999-2002	Asst. Professor-Ltd. Term	Kinesiology	University of Western Ont.
2002-2005	Asst. Professor-Tenure Track	Kinesiology	University of Western Ont.
2005-2010	Associate Professor	Kinesiology	University of Western Ont.
2010-Present	Professor	Kinesiology	University of Western Ont.
2017 -2019	Associate Dean (Research): Faculty of Health Sciences	Faculty of Health Sciences	University of Western Ont.
2019 – Present	Acting Associate Vice President (Research)		University of Western Ont.

HONORS AND AWARDS:

- 2017 Fellow, Canadian Academy of Health Sciences (<http://cahs-acss.ca/new-fellows/>)
- 2017 Streeten Lecture, American Autonomic Society
- 2017 Guest Editor: Autonomic Neuroscience: Basic and Clinical (Imaging and the Autonomic Nervous System): Imaging in Autonomic Neuroscience: Seeing is Believing. Auton Neurosci. 2017 Nov;207:1. doi: 10.1016/j.autneu.2017.08.002. Epub 2017 Aug 12.
- 2016 Distinguished University Professor (2016)
- 2015 President, International Society for Autonomic Neuroscience (2015-2017)
- 2013 Canadian Representative, International Society for Autonomic Neuroscience (2013-2015)
- 2010 Canada Research Chair, Tier I: Integrative Physiology of Exercise and Health (2010-2017)
- 2010 Wilfrid Laurier University Milestones in Science Alumni Award
- 2007 Faculty Scholar Award, 2007-2008 & 2008-2009
- 2004 Canadian Society for Exercise Physiology – Young Investigator Award
- 2001 Premier's Research Excellence Award
- 1999 American College of Sports Medicine - New Investigator Award
- 1996 University of Waterloo - Outstanding Achievement in Graduate Studies Award
- 1996 Canadian Society for Exercise Physiology Graduate Student Award
- 1996 Natural Sciences and Engineering Research Council Post-Doctoral Fellowship
- 1996 University of Waterloo Graduate Scholarship
- 1994 Natural Sciences and Engineering Research Council PGS-B Scholarship

1990	Bronze medals Academics – Wilfrid Laurier University
1990	Incentive Scholarship, Wilfrid Laurier University
1990	Canadian Association of Sport Sciences Undergraduate Student Award, Wilfrid Laurier University
1991	Natural Sciences and Engineering Research Council PGS-A Scholarship
1990	Ontario Graduate Scholarship

TEACHING

Teaching Awards

2016	FHS Recognition of Teaching Excellence Certificate
2015	FHS Recognition of Teaching Excellence Certificate
2014	FHS Recognition of Teaching Excellence Certificate
2013	USC Teaching Honour Role Award of Excellence
2012	USC Teaching Honour Role Award of Excellence
2012	FHS Recognition of Teaching Excellence Certificate
2011	FHS Recognition of Teaching Excellence Certificate
2010	FHS Recognition of Teaching Excellence Certificate
2009	FHS Recognition of Teaching Excellence Certificate
2008	USC Teaching Honour Roll Award of Excellence
2008	FHS Recognition of Teaching Excellence Certificate
2008	USC Teaching Honour Roll Award of Excellence
2007	FHS Recognition of Teaching Excellence Certificate
2007	FHS Recognition of Teaching Excellence Certificate
2006	FHS Recognition of Teaching Excellence Certificate
2005	FHS Recognition of Teaching Excellence Certificate

Master's Theses (Advisor) (*Co Advisor)

Kimmerly, D.	1999-2001	Hypovolemia and the neurovascular response to orthostatic stress
Steinback, C.	2001-2003	Hydrostatic versus sympathetic effects on carotid compliance
Salzer, D.	2004-2006	Interaction of sympathetic and endothelial effects on vascular stiffness
Medeiros, P.	2005-2007	Cardiac versus vascular contributions to the exercise pressor response
Flamengo, M.	2007-2009	Vascular bed remodeling in vascular disease
Usselman, C.	2007-2009	Effect of depth of anesthesia on reflex cardiovascular control in rats
*McMordie, J	2008-2010	Vascular mechanisms in obese youth
*Reid, E.	2008-2010	Vascular health outcomes to electronic patient monitoring in rural Ontario
Norton, K.	2009-2010	Cortical autonomic associations in hypertension
Neilson, C.	2009-2011	Early Detection of Vascular Disease in Smokers
*Tompkins, R.	2009-2011	Sympathetic neuron arrangement in the fibular nerve
Lychyshyn, T.	2010-2012	Neuroprotective Effects of Long-term Endurance Training on the Cortical Autonomic Network in the Aging Brain
Corkal, J.	2011-2013	Adenylate cyclase isoform variants in athletes and vasomotor control
Baker, J.	2011-2013	Viscerosensory-Motor Cortex integration in the human cortex
Brewer, D.	2011-2013	Baseline sympathetic action potential levels in health and disease
Moir, E.	2015-2017	Cerebral autoregulation in adolescent concussion
Bellastrini, C.	2015-2017	Heart Rate Variability in Concussed Adolescents
Knetsch, R.	2016-2018	Heart Rate Variability and Mental Health in Mentored Undergraduates
Jacobs, K.	2016-2018	Heart Rate Variability and Mental Health in Varsity Women's Hockey Mentored Undergraduates

Smith, S.	2017-2019	Diving reflex in elite breath hold divers
Woerhle, E.	2017-2019	Endothelial function in elite breath hold divers.
Kulas, B.	2019-present	Cardiovascular control in epilepsy: the post-ictal period

<i>Doctoral Theses</i> (*Co Advisor)		
Serrador, J.	1999-2000	Cerebral autoregulation during orthostatic stress
*Wilson, T.	1999-2004	Reflex regulation of cerebrovascular tone
Jackson, D	2001-2005	NPY vascular control in skeletal muscle
Kimmerly, D.	2002-2007	Cortical associations with baroreflex cardiovascular control
*Johnson, M.	2001-2007	Somatosensory modulation of efferent sympathetic discharge patterns
Steinback, C.	2005-2010	Influence of ventilation on integrated sympathetic neural control during chemoreflex stress
*Salmanpour, A.	2007-2010	Action potential content in human sympathetic nerve recordings
Mattar, L.	2006-2011	Y1 receptor contributions to essential hypertension
Goswami, R.	2006-2011	The cortical autonomic network and muscle sensory afferents
Usselman, C.	2009-2014	Estrogen and neurovascular control
Coverdale, N.	2010-2015	Reactivity of the middle cerebral artery to carbon dioxide
Olver, D.	2010-2014	Glycemic regulation of nerve blood flow
*Anazodo, U	2009-2015	Impact of exercise interventions in vascular disease on cortical perfusion
Norton, K.	2010-2016	Lifelong training and Brain Structure
Badrov, M	2012-2017	Action potential recruitment patterns: Impact of perceived versus reflexive state
Klassen, S.	2015-2019	Central determinants of efferent sympathetic nerve recruitment
Moir, E.	2017-present	Oscillatory cerebrovascular dynamics
Bellastrini, C.	2017-present	Cerebrovascular Stiffness Using Phase Contrast Imaging
Vermeulen, T.	2020 – present	Sympathetic Neurovascular Transduction
D'Souza, A.	2020-present	Impact of sex and age on sympathetic neurovascular transduction

<i>Postdoctoral Trainees</i> (*Co Advisor)		
O'Leary, D.	2001-2003	Gender, age and reflex cardiovascular control
Ditor, D.	2004 (6 mths)	Autonomic cardiovascular control
Peltonen, J.	2004 (6 mths)	Cerebral hemodynamics during volitional exercise
Zhang, Q.	2005-2006	Noise reduction in sympathetic nerve tracings
Wong, S.	2005-2007	Functional forebrain organization of autonomic centres
Kiviniemi, A.	2008-2009	Neurovascular integration
Hodges, G.	2008-2010	Cardiovascular complications in diabetes
*Thorne, M.	2009-2010	Modeling pressure-flow dynamics in the carotid phantom
Junuzovic, J.	2009-2012	Nerve blood flow
Edgell, H.	2010-2011	Markers of early vascular disease in metabolic syndrome
Salmanpour, A.	2010-2011	Action potential detection in human sympathetic recordings
Lalande, S.	2012-2014	Cardiac and neurovascular contributions to exercise in health and disease
Al-Kazhraji, B.	2015-2019	Cerebrovascular comorbidities in knee osteoarthritis

Graduate Committees

Student	Degree	Program	Year	Advisory Cte.	Defence Cte.	Comprehensive Exam Cte.
Moy, A.	M.Sc.	Kinesiology/UWO	1999			X
Wilson, T.	M.Sc.	Kinesiology/UWO	1999		X	
Vovk, A.	Ph.D.	Kinesiology/UWO	1999-2003	X	X	
Brown, D.	Ph.D.	Biophysics/UWO	2001-2003	X		X
Shaw, C.	M.Sc.	Kinesiology/UWO	2001		X	
Ditor, D.	Ph.D.	Kinesiology/McMaster	2001			X
McIntosh, B.	M.Sc.	Biophysics/UWO	2002		X	
Mantel, R.	M.Sc.	Anatomy and Cell Physiology/UWO	2002		X	
Delorey, D.	Ph.D.	Kinesiology/UWO	2000-2004	X	X	X
Brun, C.	Ph.D.	Kinesiology/UWO	2000-2004	X		X
MacPhee, S.	M.Sc.	Kinesiology/UWO	2001-2003	X	X	
Leigh, R.	M.Sc.	Kinesiology/UWO	2001-2003	X		
Sahasrabudh, P.	M.Sc.	Kinesiology/UWO	2001-2004	X		
Aizawa, K.	M.Sc.	Kinesiology/UWO	2001-2006	X	X	
Betick, A.	M.Sc.	Kinesiology/U. Waterloo	2001		X	
Pizzolitto, K	M.Sc.	Kinesiology/U. Waterloo	2003-2004	X	X	
Milne, K.	Ph.D.	Kinesiology/UWO	2002-2006	X		X
Thorpe, D.	Ph.D.	Kinesiology/UWO	2002-2006	X	X	X
Melling, J.	Ph.D.	Kinesiology/UWO	2002-2006	X		X
Mockizuki, G.	Ph.D.	Neuroscience/UWO	2003			X
Saunderson, M.	M.Sc.	Neuroscience/UWO	2003	X		
Doucette, M.	M.Sc.	Kinesiology/UWO	2003	X	X	
Dumanoir, G.	Ph.D.	Kinesiology/UWO	2002-2008	X	X	X
Chin, L.	Ph.D.	Kinesiology/UWO	2002-2006	X	X	X
Rothwell, A.	M.Sc.	Kinesiology/UWO	2004-2006	X		
Ashmead, J.	M.Sc.	Kinesiology/UCalgary	2004		X	
Vantanajal, J.	M.Sc.	Kinesiology/UCalgary	2004		X	
Thompson, J.	M.Sc.	Kinesiology/UWO	2005	X		
Murray, B.	Ph.D.	Kinesiology/UWO	2005	X		
Banach, A.	M.Sc.	Community Health/Brock	2005	X	X	
Goswami, R.	M.Sc.	Community Health/Brock	2005	X	X	
Peralta, J.	M.Sc.	Kinesiology, Brock	2005		X	
Liu, L.	M.Sc.	Elec. Engineering, UWO	2006	X		
Banic, T.	Ph.D.	Neuroscience	2007		X	
Livingstone, K.	M.Sc.	Kinesiology and Physical Education	2007		X	
Tichenoff, E.	M.Sc.	Kinesiology/UWO	2008	X		
Zhou, Ji	Ph.D.	Pharm and Physiol/UWO	2007			X
Friars, B.	Ph.D.	Kinesiology/UWO	2008		X	
McMordie, J.	M.Sc.	Kinesiology/UWO	2008	X		
Stuckey, M.	Ph.D.	Kinesiology/UWO	2007	X		X
Read, Emily	M.Sc.	Kinesiology/UWO	2009	X	X	
Borris, Stephanie	M.Sc.	Epidemiology/Biostatics	2009		X	
Dias, Gemma	M.Sc.	Medical Biophysics	2010	X		
Campos, O.	M.Sc.	Kinesiology	2010	X	X	
Davenport, M.	Ph.D.	Kinesiology	2005	X		
Fuli X.	Ph.D.	Physiology and Pharmacology	2010			X

McNamee, D.	M.Sc.	Biophysics/UWO	2006-2010		X	
Tompkins, R.	M.Sc.	Anatomy Cell Biology	2009-2011	X		
Elfarnawany, M.	M.Sc.	Engineering	2010-Present	X		
Afoo, R.	Ph.D.	Audiology and Comm. S	2011	X		
Roy, A.	Ph.D.	Physiol and Pharm	2012			X
Chirico, D.	Ph.D.	Kinesiology/Brock Univ	2010	X		
Kier, D.	Ph.D.	Kinesiology	2012-15	X		
Moreau, J.	Ph.D.	Physiology and Pharmacology	2013		X	
Robertson, R.	M.Sc.	Kinesiology	2014	X		
Allen, A.	Ph.D.	Kinesiology/UWO	2014	X		
Lingum, N.	M.Sc.	Kinesiology/UWO	2015	X		
Love, L.	Ph.D.	Kinesiology/UWO	2015	X		
Chahal, H.	M.Sc.	Epidemiology and Biostatistics/UWO	2015		X	
Bain, A.	Ph.D.	Health and Exercise Science/UBCOkanagan	2016		X	
Davarpanah, S.	Ph.D.	Kinesiology Health	2016		X	
Ahmed, F.	Ph.D.	Studies/Rehabilitation Sciences/UWO	2016	X		
Campbell, J.	M.Sc.	Kinesiology/UWO	2017	X		X
Khalid, M.	M.Sc.	Medical Biophysics/UWO	2016	X		
Baker, J.	Ph.D.	Clinical Neurology/UWO	2016	X		X
Hoiland, R.	Ph.D.	Health and Ex Sciences/UBCO	2018		X	
Farid, Z.	M.Sc.	Medical Biophysics	2018		X	
Ning, R.	M.Sc.	Physiology/Pharmacology	2018		X	

Undergraduate Student Supervision

Mullin, P.	2000	Rapid head-up tilt to assess cerebral autoregulation
Fraser, G.	2000	Contraction frequency and muscle pump blood flow control
Steinback, C.	2001	Assessing carotid artery compliance during head-up tilt
Wang, S.	2001	Sympatholysis at the exercise onset
Dolan, L.	2002	Myogenic-sympathetic interactions for forearm vasoconstriction
Rasoulinajad, P.	2003	Sympatholysis during rhythmic forearm contractions
Osborn, B.	2003	Vascular resistance response in LBNP versus head-up tilt
Crozier, J.	2003	NPY responses to autonomic reflexes in humans
Leal, J.	2003	Sympathetic constriction and metabolic – perfusion coupling
Bakker, J.	2003	Validating edge-tracking software for B-mode images
Toomsalu, K.	2004	Resistance training and carotid artery compliance
Thompson, J.	2004	Myogenic – sympathetic effects on brachial artery compliance
MacDonald, M.	2005	Sympathetic constraint of forearm blood flow during exercise
McNamee, D.	2005	Age, exercise training and heart rate variability
Trotter, S.	2006	Hypovolemia and central autonomic responses to handgrip contractions
Flamengo, M.	2007	Splenic constriction during handgrip contractions
May, C.	2007	Forearm Vascular Tree Mechanics and Sympathetic Activation
Chia, J.	2008	Carotid artery and sinus mechanics
Norton, K.	2008	Forearm pulsatile vascular mechanics in controlled and uncontrolled hypertension
Zeni, G.	2008	RCKL vascular modeling in a rodent model
Gimon, T.	2009	Scholar's elective mentoring
Guy, M.	2010	Vasodilation during handgrip exercise
Corkal, J.	2010	Vascular mechanics in healthy adults – reference values
Gimon, T.	2010	Scholar's elective mentoring: Early markers of vascular disease in obesity
Dunham, K.	2010	Vascular mechanics in healthy youth
Sawicki, C.	2011	Markers of Cardiovagal Control Across a Continuum of Risk for Cardiovascular Disease
Singer, A.	2012	Sciatic nerve eNOS expression in Type 1 diabetic rats
Collins, A.	2012	Vascular eNOS expression in a rat model of endothelial dysfunction
Peralta, A.	2013	Middle cerebral artery vasoconstriction
Bates, B.	2013	Neurotrophic Factors During Exercise: Salivary versus serum measures
Risdon, J.	2014	Impact of age on middle cerebral artery dilatory reactivity
Dietrich, J.	2014	Impact of coronary artery disease on middle cerebral artery dilatory reactivity
Davison, S.	2014	Cerebrovascular Endothelial Damage in Coronary Artery Disease: An in vitro fluid-flow investigation
Khan, M.	2015	(3 rd year volunteer) Sympathetic action potential recruitment during breath holds
Yung, S.	2015	(3 rd year volunteer) Cerebrovascular monitoring in cardiac patients
Elfassy, J.	2015	Heart rate variability in adolescent concussion
Barker, A.	2016	2 nd year: Exercise heart rate in concussed adolescents
Schulz, J.	2016	Subcortical vessel reactivity to sodium nitroglycerine
Woehrle, E.	2016	Impact of concussion in adolescents on heart rate reactivity to moderate intensity isometric handgrip.
Sarkisian, S.	2018	Cerebrovascular compliance during the sit-to-stand maneuver: Impact of venous pressure

PUBLICATIONS:**Summary:**

Books: 0
Chapters in Books: 2
Articles in Peer-Reviewed Journals: 210
Articles in Peer-Reviewed Conference Proceedings: 11
Articles in non-Peer-Reviewed Journals and Conference Proceedings: 10
Invited Reviews: 12
Invited Editorials: 4
Invited Presentations: 94
Abstracts, Presentations at Professional Meetings: 223
Technical Writings: 3
Conference Presentations: 29
Other (e.g., Book Reviews, Letters to the Editor): 2
Patents: 1

Details: (Authorship in order of original publication):**Books: N/A****Chapters in Books and Symposia**

1. Hughson, R.L., Green, H.J., Phillips, S.M., and **Shoemaker, J.K.** *Physiological limitations to endurance exercise.* in The Physiology and Pathology of Exercise Tolerance. S.A. Ward and J. Steinacker, Eds. Plenum Publishing Corp., 1995.
2. **Shoemaker, J.K.** *Cardiopulmonary System, Chapter 1* in Physiology of Exercise and Healthy Aging. A.W. Taylor and M.J. Johnson, Eds. Human Kinetics, 2008.

Articles in Peer-Reviewed Journals (asterisk identifies trainees)

1. **Shoemaker, J.K.**, & Hodge, L., Hughson, R.L. (1994). Cardiorespiratory and femoral artery blood velocity kinetics during dynamic knee extension exercise. *Journal of Applied Physiology* Dec; 77(6):2625-2632. PMID: 7896601
2. **Shoemaker, J.K.**, & Bonen, A. (1995). Vascular actions of insulin in health and disease. *Canadian Journal of Applied Physiology* Jun; 20(7):127-154. PMID: 7640642
3. Tiidus, P.M., & **Shoemaker, J.K.** (1995). Effleurage massage, muscle blood flow and long-term post-exercise strength recovery. *International Journal of Sports Medicine* Oct; 16(7):478-483. PMID: 8550258
4. Tschakovsky, M.E., **Shoemaker, J.K.**, & Hughson, R.L. (1995). Beat-by-beat forearm blood flow with Doppler ultrasound and strain gauge plethysmography. *Journal of Applied Physiology* Sep; 79(3):713- 719. PMID: 8567508
5. **Shoemaker, J.K.**, Phillips, S.M., Green, H., & Hughson, R.L. (1996). Faster femoral artery mean blood velocity kinetics with short-term training. *Cardiovascular Research* Feb; 31:278-286. PMID: 8730405

6. **Shoemaker, J.K.**, Green, H.J., Coates, J., Ali, M. & Grant, S. (1996). Failure of prolonged exercise training to increase red cell mass in humans. *American Journal of Physiology: Heart and Circulatory Physiology* Jan; 270:H121-H126. PMID: 8769742
7. Hughson, R.L., **Shoemaker, J.K.**, Tschakovsky, M.E., & Kowalchuk, J.M. (1996). Dependence of muscle VO₂ on blood flow dynamics at the onset of forearm exercise. *Journal of Applied Physiology* Oct; 81(4):1619-1626. PMID: 8904578
8. **Shoemaker, J.K.**, Pozeg, Z., & Hughson, R.L. (1996). Forearm blood flow by Doppler ultrasound during rest and exercise: tests of day-to-day repeatability. *Medicine and Science in Sports and Exercise* Sept; 28(9):1144-1149. PMID: 8883002
9. **Shoemaker, J.K.**, Naylor, H., & Hughson, R.L. (1996). Failure of prostaglandins to modulate the time course of blood flow during dynamic forearm exercise in humans. *Journal of Applied Physiology* Oct; 81(4):1516-1521. PMID: 8904562
10. Tschakovsky, M.E., **Shoemaker, J.K.**, & Hughson, R.L. (1996). Vasodilation and muscle pump contribution to immediate exercise hyperemia. *American Journal of Physiology: Heart and Circulatory Physiology* Oct; 271(4 Pt 2):H1697-H1701. PMID: 8897965
11. **Shoemaker, J.K.**, Tiidus, P.M., & Mader, R. (1997). Failure of manual massage to alter limb blood flow: Measures by Doppler ultrasound. *Medicine and Science in Sports and Exercise* May; 29(5):610-614. PMID: 9140896
12. **Shoemaker, J.K.**, MacDonald, M.J., & Hughson, R.L. (1997). Time course of brachial artery diameter responses to rhythmic handgrip exercise in humans. *Cardiovascular Research* Jul; 35:125-131. PMID: 9302356
13. **Shoemaker, J.K.**, Halliwill, J., Hughson, R.L., & Joyner, M. (1997). Contributions of acetylcholine and nitric oxide to forearm blood flow at exercise onset and recovery. *American Journal of Physiology; Heart and Circulatory Physiology* Nov; 273 (5 Pt 2):H2388-H2395. PMID: 9374776
14. **Shoemaker, J.K.**, Pandey, P., Herr, M.D., Silber, D.H., Yang, Q.X., Smith, M., Gray, K., & Sinoway, L.I. (1997). Augmented sympathetic tone alters muscle metabolism with exercise: Lack of evidence for functional sympatholysis. *Journal of Applied Physiology* Jun; 82(6):1932-1938. PMID: 9173961
15. **Shoemaker, J.K.**, Hogeman, C.S., Leuenberger, U.A., Herr, M.D., Gray, K., Silber, D.H., & Sinoway, L. (1998). Sympathetic discharge and vascular resistance after bed rest. *Journal of Applied Physiology* Feb; 84(2):612-617. PMID: 9475873
16. **Shoemaker, J.K.**, Tschakovsky, M.E., & Hughson, R.L. (1998). Vasodilation contributes to the rapid hyperemia with rhythmic contractions in humans. *Canadian Journal of Physiology and Pharmacology* Apr; 76(4): 418-427. PMID: 9795751
17. **Shoemaker, J.K.**, Tschakovsky, M.E., Hergott, C., & Hughson, R.L. (1998). The muscle pump and vasodilation contribute to the rapid hyperemia with rhythmic contractions in humans. *Canadian Journal of Physiology and Pharmacology* 76:1-10.
18. **Shoemaker, J.K.**, Green, H.J., Ball-Burnett, M., & Grant, S. (1998). Relationships between fluid and electrolyte hormones and plasma volume during exercise with training and detraining. *Medicine and*

19. Shoemaker, J.K., Hogeman, C.S., Silber, D.H., Gray, K., Herr, M., & Sinoway, L.I. (1998). Head-down tilt bed rest alters forearm vasodilator and vasoconstrictor responses. *Journal of Applied Physiology* May; 84(5):1756-1762. PMID: 9572827
20. MacDonald, M.J., Shoemaker, J.K., Tschakovsky, M.E., & Hughson, R.L. (1998). Alveolar oxygen uptake and femoral artery blood flow dynamics in upright and supine leg exercise in humans. *Journal of Applied Physiology* Nov; 85(5):1622-1628. PMID: 9804561
21. Shoemaker, J.K., Kunselman, A.R., Silber, D.H., & Sinoway, L.I. (1998). Maintained exercise pressor response in heart failure. *Journal of Applied Physiology* Nov; 85(5):1793-1799. PMID: 9804583
22. Brock, R.W., Tschakovsky, M.E., Shoemaker, J.K., Halliwill, J.R., Joyner, M.J., & Hughson, R.L. (1998). Effects of acetylcholine and nitric oxide on forearm blood flow at rest and after a single muscle contraction. *Journal of Applied Physiology* Dec; 85(6):2249-2254. PMID: 9843549
23. Shoemaker, J.K. & Hughson, R.L. (1999). Adaptation of blood flow during the rest-to-work transition in humans. *Medicine and Science in Sports and Exercise* Jul; 31(7):1019-1026. PMID: 10416564
24. Green, H., Dahly, A., Shoemaker, J.K., Goreham, C., Bombardier, E., & Ball-Burnett, M. (1999). Serial effects of high-resistance and prolonged endurance training on Na⁺-K⁺ pump concentration and enzymatic activities in human vastus lateralis. *Acta Physiologica Scandinavica* Feb; 165(2):177-84. PMID: 10090329
25. Shoemaker, J.K., McQuillan, P.M., & Sinoway, L.I. (1999). Upright posture reduces forearm blood flow early in exercise. *American Journal of Physiology, Regulatory, Integrative and Comparative Physiology* May; 276(5 Pt 2):R1434-R1442. PMID: 10233037
26. Shoemaker, J.K., Naylor, H.L., Hogeman, C.S., & Sinoway, L.I. (1999). Blood flow dynamics in heart failure. *Circulation* Jun; 99(23):3002-3008. PMID: 10368117
27. Naylor, H.L., Shoemaker, J.K., Brock R.W., & R.L. Hughson. (1999). Prostaglandin inhibition causes an increase in reactive hyperaemia after ischaemic exercise in human forearm. *Clinical Physiology* May; 19(3):211-220. PMID: 10361611
28. Shoemaker, J.K., Hogeman, C.S. & Sinoway, L.I. (1999). Contributions of muscle sympathetic nerve activity and stroke volume to orthostatic intolerance following bed rest. *American Journal of Physiology, Regulatory, Integrative and Comparative Physiology* Oct; 277(4 Pt 2):R1084-R1090. PMID: 10516248
29. Shoemaker, J.K. & Sinoway, L.I. (2000). Dissociation of muscle sympathetic nerve activity and leg vascular resistance in humans. *American Journal of Physiology, Heart and Circulatory Physiology* Sep; 279(3):H1215-H1219. PMID: 10993787
30. Lee, F., Shoemaker, J.K., McQuillan, P.M, Kunselman, A.R, Smith, M.B., Yang, Q.X., Smith, H., Gray K., & Sinoway L.I. (2000). The effects of forearm bier block with bretylium on the hemodynamic and metabolic responses to handgrip. *American Journal of Physiology, Heart and Circulatory Physiology* Aug; 279(2): H586-H593. PMID: 10924057

31. Serrador, J.M., Picot, P., Rutt, B.K., **Shoemaker, J.K.**, & Bondar, R.L. (2000). MRI measures of MCA diameter in conscious humans during simulated orthostasis. *Stroke* Jul; 31(7):1672-1678. PMID: 10884472
32. Serrador, J.M., **Shoemaker, J.K.**, Brown, T.E., Kassam, M.S., Bondar, R.L. & Schlegel, T.T. (2000). Cerebral vasoconstriction precedes orthostatic intolerance after parabolic flight. *Brain Research Bulletin* Sep; 53(1):113-120. PMID: 11033215
33. Tulppo, M.P., Mäkkilä, T.H., Seppänen, T., **Shoemaker, J.K.**, Tutungi, E., Hughson, R.L., & Huikuri, H.V. (2001). Effects of pharmacological adrenergic and vagal modulation on fractal heart rate dynamics. *Clinical Physiology* Sep; 21(5):515-523. PMID: 11576151
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171. Olver, T.D., Grise, K.N., McDonald, M.M., Dey, A., Noble, E.G., Melling, C.W.J., Lacefield, J.C., **Shoemaker, J.K.** (2013) The effect of chronic low grade hyperglycemia on basal nerve blood flow values in Sprague-Dawley rats. *Experimental Biology* 2013 Boston, Massachusetts. April 20-24, 2013. Abstract #B59 901.5
172. Sawicki, C.P., Luchyshyn, T.A., Frances, M.F., Norton, K.N., **Shoemaker, J.K.** (2013) Endurance training fails to correct age-related declines in cardiovagal control. *Experimental Biology* 2013 Boston, Massachusetts. April 20-24, 2013. Abstract #B457 928.5
173. Lalande, S., Sawicki, C.P., Baker, J.R., **Shoemaker, J.K.** (2013) Effect of aging on the hemodynamic and sympathetic response at the onset of isometric handgrip exercise. *Experimental Biology* 2013 Boston, Massachusetts. April 20-24, 2013. Abstract #B677 943.12
174. Coverdale, N., Usselman, C.W., Gimon, T.I., Nielsen, C.A., Luchyshyn, T.A., **Shoemaker, J.K.** (2013) Sympathoinhibition in men during paced breathing at 0.25 Hz. *Experimental Biology* 2013 Boston, Massachusetts. April 20-24, 2013. Abstract #B129 1118.14
175. Usselman, C.W., Luchyshyn, T.A., Gimon, T.I., Nielsen, C.A., Van Uum, S.H.M., **Shoemaker, J.K.** (2013) Hormone-phase dependence of muscle sympathetic nerve activity in young healthy women using hormonal

contraceptives. *Experimental Biology* 2013 Boston, Massachusetts. April 20-24, 2013. Abstract #B134 1118.19

176. Olver, T.D., Grise, K.N., McDonald, M.W., Dey, A., Collins, A.W., Noble, E.G., Melling, C.W.J., **Shoemaker, J.K.**, (2013) Blood Pressure and Vascular Function in Sprague-Dawley Rats With Insulin-Treated Type I Diabetes Mellitus. *Diabetes* 62(1A): LB2, 2013.
177. Usselman, C.W., Nielson, C.A., Coverdale, N.S., Luchyshyn, T.A., Gimon, T.I., Van Uum, S.H.M., **Shoemaker, J.K.** (2013) Menstrual cycle-induced variations in estradiol and progesterone associated with baseline and baroreflex-induced muscle sympathetic nerve activation patterns. International Society for Autonomic Neuroscience (ISAN), Giessen, Germany. July 29 – August 2, 2013. Abstracts / Autonomic Neuroscience: Basic and Clinical 177 (2013) 1-65 P12.5
178. Lalande , S., Barron, C.C., **Shoemaker, J.K.** (2014) Impact of central blood volume on the cardiovascular response to isometric handgrip exercise. Experimental Biology 2014, San Diego, California. April 26 – 30, 2014. Abstract #A5 852.5
179. Wilson, G.A., Hoye, N.A., Wilson, L.C., **Shoemaker, J.K.**, Walker, R.J., Jardine, D.L., Schollum, J.B., Wilkins, G.T., Baldi, J.C. (2014) Effect of renal ablation on blood pressure and muscle sympathetic nerve activity in chronic kidney disease patients. Experimental Biology 2014, San Diego, California. April 26 – 30, 2014. Abstract #LB722
180. Badrov, M.B., Usselman, C.W., **Shoemaker, J.K.** (2014) Sympathetic neural recruitment during severe chemoreflex stimulation. Experimental Biology 2014, San Diego, California. April 26 – 30, 2014. Abstract #LB732
181. Anazodo, U.C., **Shoemaker, J.K.**, Suskin, N. and St. Lawrence, K., Investigation of regional changes in CBF and vascular reactivity in cardiac disease patients. Human Brain Mapping, Hamburg, Germany, June 8- 12, 2014.
182. Coverdale, N.S., Lalande, S., Perotta, A., Shoemaker, J.K. Time course of changes in middle cerebral artery and internal carotid artery cross-sectional area and blood flow during hyhpercapnia and hypocapnia. Canadian Society for Exercise Physiology, Oct 22-25, 2014, St. John's N.L.
183. Freeman, S.R., Hanik, S.E., Soman, Y.B., Pennetti, A.S., Shoemaker, J.K., Milne, J.K., McGowan, C.L. The skeletal muscle metaboreflex in ischaemic heart disease and the role of cardiac rehabilitation: Preliminary findings. . Canadian Society for Exercise Physiology, Oct 22-25, 2014, St. John's N.L
184. Norton, K.N., Luchyshyn, T.A., Drozd, J., Bartha, R., Shoemaker, J.K., Impact of long-term marathon running on age-related lateral ventricle volume. Canadian Society for Exercise Physiology, Oct 22-25, 2014, St. John's N.L.
185. Badrov, M.B., Usselman, C.W., Shoemaker, J.K. Sympathetic axonal recruitment during severe chemoreflex stress in humans. Experimental Biology, March 29, 2015, Boston, MA.
186. Coverdale, N.S., Badrov, M.B., Shoemaker, J.K. Impaired middle cerebral artery and cerebrovascular vasodilation in healthy aging. Experimental Biology, March 29, 2015, Boston, MA.
187. Ogoh, S., Hirasawa, A., Sugawara, J., Nakahara, H., Ueda, S., Shoemaker, J.K. Miyamoto, T. The effect of an acute increase in central blood volume on hypercapnia-induced attenuation in dynamic cerebral

- autoregulation. Experimental Biology, March 29, 2015, Boston, MA.
188. Kolten C. Abbott, Mark B. Badrov, Jonah Elfassy, M. Erin Moir, Sara A. Fischer, Lisa K. Fischer, Douglas D. Fraser, and J. Kevin Shoemaker. 2016. *Cardiac Autonomic Function is Impaired in Adolescents with Mild Traumatic Brain Injury*. Experimental Biology International Conference, San Diego CA: FASEB: 30(1).
189. KN Norton, A Heinecke, JK Shoemaker (2015) The Neuroprotective Effects of Endurance Training on the Aging Brain. Autonomic Neuroscience: Basic and Clinical, Vol. 192, p110.
190. M Daley, KN Norton, JS Gati, JK Shoemaker. (2015) Single-subject functional parcellation of the human brainstem. Autonomic Neuroscience: Basic and Clinical, Vol. 192, p11–12.
191. KN Norton, JK Shoemaker. (2011) The hippocampal connection to the autonomic network. Autonomic Neuroscience: Basic and Clinical, Vol. 163, Issues 1-2, p50
192. R Goswami, KN Norton, MF Frances, HA Sharma, JK Shoemaker. Aging is associated with reduced white matter connectivity and fractional anisotropy in cortical autonomic regions.(2011) Autonomic Neuroscience: Basic and Clinical, Vol. 163, Issues 1-2, p50–51
193. KN Norton, M Zamir, MF Frances, CW Usselman, A Fleischauer, JK Shoemaker. (2009) Modeling Forearm Vascular Mechanics in Hypertension. *FASEB J.* 23:1017.41
194. GJ Hodges, KN Norton, J Chia, KA Zuj, JK Shoemaker. (2009) Distensibility of the common carotid and carotid sinus during lower body negative pressure. *FASEB J.* 23:957.5
195. AM Kiviniemi, MP Tulppo, T Seppänen, KN Norton, MF Frances, RP Nolan, HV Huikuri, JK Shoemaker. (2009) Effects of aging, hypertension, and diabetes on low-frequency arterial pressure oscillations. *FASEB J* 23:1019.21.
196. KN Norton, A Heinecke, JK Shoemaker. Impact of Long-Term High Level Endurance Training on Brain Structure. The Saltin International Graduate Course in Clinical and Exercise Physiology; October 2015.
197. KN Norton, A Heinecke, R Nikolov, JK Shoemaker. Impact of Long-term High-level Endurance Training on Brain Structure in Healthy Aging. CSEP; October 2015.
198. KN Norton, TA Luchyshyn, J Drozd, R Bartha, JK Shoemaker. Impact of Long-Term Marathon Training on Age-Related Neuroanatomical Decline. ACSM; May 2015.
199. Norton, K.N., Luchyshyn, T.A., Shoemaker, J.K., High Cardiorespiratory Fitness in Middle-Age Preserves Decline in Cortical circuitry Associated with Brain-Heart Integration During Volitional Exercise. CSEP; Victoria, B.C. October 14, 2016.
200. Moir, M.E., Abbott, K.C., Fischer, S.A., Elfassy, J., Fischer, L.K., Fraser, D.D., Shoemaker J.K. Cardiac autonomic function impairment in concussed adolescents during a sit-to-stand protocol. American Autonomic Society meeting, San Diego, CA, Nov. 2, 2017 (Lundberg Travel Awardee).
201. Badrov, M.B., Wood, K.N., Lalande, S., Suskin, N., Shoemaker, J.K. Exaggerated pressor and sympathetic responses to short-duration static handgrip in coronary artery diseased patients: Effect of six months of cardiac rehabilitation. American Autonomic Society meeting, San Diego, CA, Nov. 3, 2017.

202. Klassen, S.A., De Abreu, S., Denise, P., Shoemaker, J.K., Normand, H. Head-down tilt bed rest increases sympathetic burst latency. American Autonomic Society meeting, San Diego, CA, Nov. 3, 2017.
203. Balestrini, C.S., Moir, M.E. Abbott, K.C., Johnson, M., Fischer, L.K., Fraser, D.A. Shoemaker, J.K. Cardiovagal and Cerebrovascular Impairments in Adolescent Concussion. University Health Network Concussion Symposium, Toronto, January 21, 2017.
204. Woehrle, E., Barker, A., Abbott, K., Balestrini, C.S. Moir, M.E., Fraser, D.A., Fischer, L.K., Shoemaker, J.K. Impaired heart rate reactivity to brief handgrip exercise in Adolescent Concussion. University Health Network Concussion Symposium, Toronto, January 21, 2017.
205. Moir, M.E. Abbott, K.C., Balestrini, C.S., Fischer, L.K., Fraser, D.D., Shoemaker, J.K. Impaired dynamic cerebral autoregulation to postural stress following concussive injuries in adolescents. Experimental Biology, Chicago, April 22, 2017.
206. Balestrini, C.S., Moir, M.E. Abbott, K.C., Fischer, L.K., Fraser, D.D., Shoemaker, J.K. Autonomic dysregulation in adolescent concussion: Characterization and temporal resolution of neurological outcomes. Experimental Biology, Chicago, April 22, 2017.
207. Shoemaker J.K., Al-Khzraji, B., Shoemaker, L.N., Integrative Physiology of Brain Perfusion During Extreme Chemoreflex Manoeuvres. Experimental Biology, Chicago, April 2017.
208. Shoemaker, L.N., Al-Khzraji, B., Gati, J., Tzekeris, T., Shoemaker, J.K. Reactivity of Basilar and Circle of Willis Arteries Measured Simultaneously at 7 Tesla. Experimental Biology, Chicago, April 25 2017.
209. Klassen, S. De Abreu, S., Denis, P., Shoemaker, J.K., Normand, H. Sixty Days of Head-Down Bed Rest Augments Muscle Sympathetic Nerve Activity Responses to Maximal End-Inspiratory Apnea: Evaluation of Sympathetic Neural Recruitment Strategies. Experimental Biology, Chicago, April 23, 2017.
210. Badrov, M., Barak, O., Mijacika, T., Drvis, I., Dujic, Z., Shoemaker J.K., Ventilation Inhibits Sympathetic Neural Recruitment During Severe Chemoreflex Stress. Experimental Biology, Chicago, April 25, 2017.
209. Schultz, J.J., Al-Khzraji, B.K., Shoemaker, J.K., Sodium nitroglycerine induces cerebrovascular vasodilation in young adults. Canadian Society for Exercise Physiology annual conference, Winnipeg, Manitoba. Oct 26, 2017.
210. S.A. Klassen, J.K. Limberg, S.E. Baker, W.T. Nicholson, T.B. Curry, M.J. Joyner, J.K. Shoemaker. The Role of the Paravertebral Ganglia in Sympathetic Vasoconstrictor Neural Discharge Patterns. Experimental Biology, San Diego April 21-25, 2018.
211. E.P. Ott, S.E. Baker, W.T. Nicholson, M.J. Joyner, K. Shoemaker, J.K. Limberg. Pharmacological assessment of the Arterial Baroreflex to Sympathetic Discharge Patterns in Healthy Humans. Experimental Biology, San Diego April 21-25, 2018.
212. B.K. Al-Khzraji, N.R. Lingum, J.L. Vording, B.J. Matuszewski, J.K. Shoemaker. Cerebrovascular Control After Cardiac Rehabilitation in Ischemic Heart Disease Patients. Experimental Biology, San Diego April 21-25, 2018.
213. J.M. Schulz, B.K. Al-Khzraji, J.L. Vording, J.K. Shoemaker. Sodium Nitroglycerin Induces Cerebrovascular Vasodilation in Patients with Ischemic Heart Disease. Experimental Biology, San Diego April 21-25, 2018.
214. C.S. Balestrini, B.K. Al-Khzraji, N.R. Lingum, J.L. Vording, N. Suskin, J.K. Shoemaker. Carotid Arterial Stiffness Predicts White Matter Lesion Volume in Older Adults. Experimental Biology, San Diego April 21-25, 2018.
215. M.E. Moir, M. Zamir, S.A. Klassen, C.S. Balestrini, J.K. Shoemaker. Cerebrovascular Compliance Is

- Affected by Posture. Experimental Biology, San Diego April 21-25, 2018.
216. R. Knetsch, S.A. Klassen, J.K. Shoemaker. Cardiodynamic Associations with Mental Health and Resilience in Undergraduate Students. Experimental Biology, San Diego April 21-25, 2018.
217. E. Woehrle, K.G. Jacobs, J.K. Shoemaker. Posture Modifies Neuro-Cardiac Heart Rate Responses at the Onset of Moderate Intensity Isometric Handgrip Exercise. Experimental Biology, San Diego April 21-25, 2018.
218. The Impact of Aerobic Exercise Training on Autonomic Function in Adolescent Sport-Related Concussion. A. Harriss, E. Woehrle, A. Barker, M.E. Moir, L. Fischer, D. Fraser, J.K. Shoemaker. Experimental Biology, San Diego April 21-25, 2018.
219. S.O. Smith, E. Woehrle, S.A. Klassen, K.G. Jacobs, R. Knetsch, J.K. Shoemaker. Effects of Contralateral Forearm Somatosensory Stimulation on Heart Rate Responses to Isometric Hand Grip Exercise. Experimental Biology, San Diego April 21-25, 2018.
220. K. Jacobs, E. Woerhle, S. Klassen, S. Smith, A. Barker, R. Knestch, J.K. Shoemaker. Sex Differences in Heart Rate Response to Isometric Handgrip Exercise with Concurrent Contralateral Forearm Somatosensory Stimulation. Experimental Biology, San Diego April 21-25, 2018.
221. Klassen, S. A., Moir, M. E., & Shoemaker, J. K. (2019). Asynchronous Action Potential Discharge in Human Muscle Sympathetic Nerve Activity. Experimental Biology, Orlando Florida, 2019: *The FASEB Journal*, 33(1_supplement), 562-5.
222. Moir, M.E., Woerhle E., Smith, S.O., Klassen, S.A., Matushewski, B., Barak, O.F., Dujic, Z., Kozic, D., Shoemaker, J.K. (2019). Cerebrovascular Regulation in Breath-Hold Divers with Chronic Exposure to Long-Duration Apneas. Experimental Biology, Orlando Florida, 2019; *The FASEB Journal*, 33(1_supplement), 855-1.
223. Klassen, S.A., Moir, M.E., Shoemaker, J.K. (2019). Baroreflex control of sympathetic action potential discharge during severe orthostatic stress. July 25, 2019. International Society for Autonomic Neuroscience, Los Angeles, CA.
224. Al-Khzraji, B.K., Schulz, J.M., Vording, J.L., Mathuszewski, B.J., Shoemaker, J.K. (2019) Cerebral vascular function in ischemic heart disease after 6 months of cardiac rehabilitation. November 8, 2019. Canadian Society for Exercise Physiology (CSEP). Kelowna, B.C.

Technical Writings

211. Galigekere, R.R. & **Shoemaker, J.K.** (2003). Utility and limitations of spectrum analysis with emphasis on new directions for information extraction from MSNA. Technical Report (NVRL-UWO-RRG-JKS-25092003).
212. Bakker, J., Ladak, H. & **Shoemaker, J.K.** (2003). Using a semi-automatic edge-tracking technique to assess carotid arterial diameter and wall thickness. Technical Report (NVRL-UWO-JB-JKS-09122003).
213. Petrella, R.J., Aizawa, K., **Shoemaker, J.K.**, Overend, T., Piche, L., Marin, M., Shapiroand, S., Atkin, S. (2011). Efficacy of a family practice-based lifestyle intervention program to increase physical activity and reduce clinical and physiological markers of vascular health in patients with high normal blood pressure and/or high normal blood glucose (SNAC): study protocol for a randomized controlled trial. 12:45

Book Reviews

N/A

Letters to the Editor

Does the integrated response require both sides of this coin? *Journal of Applied Physiology*, 100: xx, 2005

RESEARCH FUNDING: (indicate year granted, principal investigators in order of grant application, grantor, purpose or title, annual amount, type of grant)

Start Date	End Date	Principal Investigator	Co-Investigator	Granting Agency	Grant Title	Total Amount
1998	1999	J.K. Shoemaker		Penn State College of Med.	Interstitial Acetylcholine in Human Skeletal Muscle	25,000 US
1999	2000	J.K. Shoemaker		NSERC	Portable Data Acquisition System	37,500
1999	2003	J.K. Shoemaker		NSERC	Reflex Regulation of Vascular Resistance in Humans	105,000
2000	2001	J.K. Shoemaker	P. Picot	Canadian Foundation for Innovation/ Ontario Innovation Fund	Neurovascular Control in Humans	426,000
2001	2002	J.K. Shoemaker	D. Cechetto V. Hachinski	Ontario March of Dimes	Reflex Cardiovascular Control Following Stroke in Humans	20,000
2000	2002	R.L. Hughson	J.K. Shoemaker D.C. Lin	Canadian Space Agency	Autonomic Nervous System Control on ISS	274,192
2001	2004	R.L. Hughson	J.K. Shoemaker D.C. Lin A. Gelb	NSERC-CIHR Collaborative Health Project	Cardiovascular Dynamics: From Model to Physiology	305,110
2001	2006	J.K. Shoemaker		Premiere's Research Excellence Award	Central and Peripheral Contributions to Peripheral Neurovascular Control	100,000
2002	2004	J.K. Shoemaker	D. Cechetto	Heart and Stroke Foundation of Ontario	Age, Gender and Central Sympathetic Control	92,000
2002	2003	J.K. Shoemaker	D. Cechetto E. Noble	UWO Academic Development Fund	Microdialysis to Examine Integrated Neurovascular Control	74,864

2003	2007	J.K. Shoemaker		NSERC	Sympathetic Neural Patterns, Co-transmitters and Neurovascular Interactions	152,760
2003	2005	R. Petrella,	J.K. Shoemaker	Biovail Corporation	Linking physiological determinants of cardiovascular function and health to preventive lifestyle and targeted pharmacological interventions in primary care.	1,400,000
2003	2008	R. L. Hughson	J.K. Shoemaker	Canadian Space Agency	Cardiovascular and Cerebrovascular Control on Return from International Space Station	334,494
2004	2006	R.L. Hughson	J.K. Shoemaker J. Rush	Canadian Space Agency	Vascular Remodelling and Functional Consequences During Long-Term Bed Rest	396,034
2004	2007	J.K. Shoemaker	D. Cechetto	Heart and Stroke Foundation of Ontario	Central Autonomic Control in Humans	212,491
2004	2007	J.K. Shoemaker	R.L. Hughson	NSERC-CIHR Collaborative Research Health Project	Modeling and Interpreting Sympathetic Neural Discharge Patterns	324,712
2004	2008	J.K. Shoemaker	R.L. Hughson D. Cechetto R. Petrella	Canadian Space Agency	Bedrest Deconditioning and Central Autonomic Control	396,034

2005	2006	K. Seguira,	D.S. Ditor K.C. Hayes J.K. Shoemaker D.L. Wolfe	Ontario Neurotrauma Fund	FES Exercise as a means to attenuate risk factors for cardiovascular disease and the development of pressure sores in individuals with tetraplegia	\$75,000
2006	2008	Robert Nolan	J.K. Shoemaker	Canadian Stroke Network	I-START: Internet- based strategic	\$938,000
			- others -		transdisciplinary approach to risk reduction and treatment	
2006	2010	J. K. Shoemaker	E.G. Noble D.N. Jackson	CIHR	Physical Activity, Estrogen and Peptidase Regulation of Neurovascular Control	\$320,000
2007	2008	J.K. Shoemaker	T. Birmingham, R. Martin, H. Prapavessis, C. Orchard, L. Miller, A. Kothari	UWO-IDI	Western's Interdisciplinary Initiative For the Study of Health Across the Lifespan	\$30,000
2007	2009	T. Wade	J.K. Shoemaker and others	Heart and Stroke Foundation of Ontario	Social determinants of childhood hypertension	\$500,000
2007	2010	R.L. Hughson	J.K. Shoemaker -others-	Canadian Space Agency	Countermeasures to protect against bed rest-induced hormonal and inflammatory effects on blood vessels and bone.	\$535,986

2007	2012	R. Petrella	J.K. Shoemaker -others-	CIHR-TEKES: Cardiovascular Complications of Diabetes Team Grant	Artemis: Innovation to reduce cardiovascular complications of diabetes at the intersection of discovery, prevention and knowledge exchange.	\$3,684,006
2007	2012	J.K. Shoemaker	R.E. Martin	Canadian Foundation for Innovation	Laboratory to test and train the Brain- Heart Connection	\$337,000 (CFI) \$337,000 (ORF)
2008	2009	A. Kothari	J.K. Shoemaker, N. Wathen, A.	FHS Interdisciplinary Research Award	Ebb and Flow: Understanding Interactions in Primary Health	\$6,000
			Salmoni, R. Petrella		Care Teams Using Social network Analysis	
2008	2011	J.K. Shoemaker	A. Kothari N. Wathen R. Petrella A. Willson H. Prapavessis	UWO Interdisciplinary Development Initiative	Enabling Lifestyle Management in Family Practice	\$260,000
2008	2010	S. Burke	J.K. Shoemaker -others-	Lawson Health Research Institute (LHRI)	A community based lifestyle intervention for obese children at risk for type 2 diabetes and their families	150,000
2008	2011	J.K. Shoemaker	N. Suskin K. St. Lawrence	HSFO	Plasticity of Cortical- Cardiovascular Interactions in Vascular Disease	\$239,268
2008	2013	J.K. Shoemaker		NSERC	Sympathetic Discharge, Neurotransmitters, and Neurovascular Control in Humans	\$265,000
2009	2010	M. Heath	J.K. Shoemaker	NSERC RTI	Transcranial magnetic stimulation in sensorimotor processes	\$25,406

2009	2010	J. Melling	J.K. Shoemaker	Academic Development Fund , ADF/UWO	Autonomic nervous regulation of pancreas function	\$43,000
2009	2009	J.K. Shoemaker	K. St. Lawrence, C. Rice and others	CIHR	CIHR Team Grant: Physical Activity, Mobility and Health	\$10,000
2009	2009	J.K. Shoemaker	K. St. Lawrence, C. Rice and others	FHS-Major Collaborative Grant Initiative	CIHR Team Grant: Physical Activity, Mobility and Health	\$7,790
2010	2015	J.K. Shoemaker	K. St. Lawrence, C. Rice and others	CIHR	CIHR Team in Physical Activity, Mobility and Neural Health	\$2,441,608
2010	2017	J.K. Shoemaker	N/A	CRC	CRC in Integrative Physiology of Exercise and Health	\$1,400,000
2011	2014	R. Nolan	J.K. Shoemaker and others	CIHR	Reducing risk with E-based support for Adherence to lifestyle Change in Hypertension: REACH	\$550,000
2011	2013	R.L. Hughson	J.K. Shoemaker	Canadian Space Agency	Structural and functional cardiovascular adaptations with long duration space flight	\$300,000

2013	2018	J.K. Shoemaker	N/A	NSERC	Neural Pathways Associated with Sympathetic Neuronal Recruitment in Humans	\$285,000
2013	2016	R. Petrella	D. Gill, V. Hachinski, T. Liu-Ambrose, A. Owen, J.K. Shoemaker, C. Fitzgerald	CIHR	HM2: Healthy Mind, Healthy Mobility – Combined Dual- task Gait Training and Aerobic Exercise for Older Adults with Cognitive Impairment	\$356,547
2013	2015	Martin, C.	Shoemaker, J.K., Ellis, C., Cepinskas, G., Mele, T., Sharpe, M., St. Lawrence, K., Fraser, D., Hammond, R., Goldman, D	COLLABORATIVE RESEARCH SEED GRANTS (CRSG) – Western University	Targeted Exercise Intervention to Reduce Morbidity and Mortality in Sepsis	\$45,000
2014	2016	Fraser, D.D.	Choong, K., Doherty, T., Seabrook, J., Shoemaker, J.K., Koo, K., Han V.	AHSC AFP INNOVATION FUND	Functional Recovery in Critically Ill Children: The “WEE- COVER” Longitudinal Cohort Study	\$140,691
2014	2017	Fraser, D.D. Shoemaker, J.K.		Children's Health Foundation	Interventions to improve exercise in concussed adolescents	\$250,000
2015	2015	Shoemaker J.K.	Birmingham, T.	Faculty of Health Sciences, University of Western Ontario	Cerebrovascular Co- Morbidities in Knee Osteo-arthritis	\$40,000

2015	2019	Shoemaker J.K.	Fraser, D.D. Cepinskas, G. Daley, M. Dekaban, G. Summers, K. St. Lawrence, K.	Canadian Institutes of Health Research	Cerebrovascular outcomes in ischemic heart disease patients undergoing cardiac rehabilitation`	\$848,326
2015	2016	Shoemaker J.K.	Birmingham, T. Al-Kazhrajji, B.	Bone and Joint Institute Catalyst Grant Competition Western University	Cerebrovascular Control in Osteo- arthritis	\$25,964
2015	2016	Shoemaker J.K.	Poepping, T. Lacefield, J.	NSERC RTI	Modeling Cerebrovascular Mechanics	\$58,562
2015	2018	Peltonen, J.	12 others (two Canadians including R. Petrella and K. Shoemaker)	TEKES, Finland	Motivation Makes the Move	710 000 € (work done in Finland)
2016	2019	Shoemaker, J.K.	Misener, L. and 8 others from Western	The University of Western Ontario	Interdisciplinary Research Initiative: Smart, Health Campus	\$200,000
2016	2021	Liu-Ambrose, T.	Nagamatsu, L. Barha, C. Best, J. Erickson, K. Robinson, G-Y Sheel, A. Shoemaker, J.K.	CIHR Project Scheme	One size does not fit all: Tailoring exercise prescription for brain health based on BDNF polymorphism	\$1,450,000

2017	2019	Shoemaker, J.K.	Norozi, K. Al-Khazraji, B.	MITACS	Understanding the impact of Fontan Circulatory Repair on Brain Blood Flow	\$55,000
2017	2024	Shoemaker, J.K.		Canada Research Chair Program, Tier 1	Integrative Physiology of Exercise and Health	\$1,400,000
2017	2017	Shoemaker, J.K.	Bauer, M., Lizotte, D., Misener, L. and others	Bell Let's Talk Community Fund	Smart, Healthy Campus	\$20,000
2018	2023	Frisbee, J. Shoemaker, J.K.	Whitehead, S.N. Schmidt, S.K. Jackson, D.N. Frisbee, S.J.	Sex-based protection from systemic vasculopathy with chronic stress and depression symptoms.	CIHR	\$872,100
2018	2023	Shoemaker, J.K.		Sympathetic Recruitment, Modulation and Vascular Coupling in Humans	NSERC	\$325,000
Not Funded		Shoemaker, J.K.	Bartha, R. Drvis, I. Owen, A. Slasarev, M. Barak, O. Nagamatsu, L. Jurkiewicz, M.	Cerebral Acidosis and Cognition: A prospective study in Elite Breath-Hold Divers	BrainsCAN	\$100,000
2019	2020	Shoemaker, J.K.	Ting-Yim Lee, Emily Lalone, Tom Appleton	Bone Blood Flow in Humans: Impact of venous occlusion and osteoarthritis	Bone and Joint Institute	\$30,000

NOTE: My role in the collaborative grants is to participate in and/or oversee, the collection and analysis of sympathetic, vascular mechanics, cardiovascular, and/or regional blood flow data as well as participate in manuscript preparation.

OTHER SCHOLARLY AND PROFESSIONAL ACTIVITIES:

Keynote Addresses

1. **Shoemaker, J.K.** Streeten Lecture: Recruitment strategies in efferent sympathetic nerve activity: Old hypotheses gain momentum in human multi-unit recordings. American Autonomic Society annual meeting. San Diego, CA. Nov 3, 2017.
2. **Shoemaker J.K.** Forebrain neurocircuitry associated with autonomic control in humans. Michigan Physiological Society, Alma Michigan, June 8, 2017.
3. **Shoemaker, J.K.** Richard Hughson: Mr. Spats meets Major Tom. APNM Presidents' Lecture in Honour of Richard Hughson. Canadian Society for Exercise Physiology annual conference, Winnipeg, Manitoba, Oct. 27, 2017.
4. **Shoemaker, J.K.** The Brain on Exercise. Canadian Centre for Activity and Ageing Annual Conference, London, Ontario. June 8, 2018.

Symposia Chair/Organization

1. **Shoemaker, J.K.** (Chair) Reflex circulatory control during exercise in humans. Canadian Society for Exercise Physiology meeting, Oct. 2-5, 2003, Niagara-on-the-Lake, Ontario.
2. **Shoemaker, J.K & Hughson, R.L.** (Co-Chairs). Bed Rest Deconditioning Research – The Next Generation. Canadian Society for Exercise Physiology, London, Ontario, November 14, 2007
3. **Shoemaker, J.K.** (Chair) The complex physiology of blood pressure regulation during isometric exercise. Canadian Society for Exercise Physiology, London, Ontario, November 15, 2007
4. **Shoemaker, J.K.** (Chair) Autonomic Nervous System, Exercise and Health. Canadian Society for Exercise Physiology, Regina, Saskatchewan, October 10 – 13, 2012
5. **Shoemaker, J.K., & Knuepfer, M.** (Co-Chairs) Assessing Postganglionic Sympathetic Neuronal Discharge Patterns: Implications For Understanding Aberrant Sympathetic Outflow. Experimental Biology 2013, Boston, Massachusetts, April 20 – 24, 2013
6. **Shoemaker, J.K.** (Chair) Quantifying Sympathetic Nerve Activity: Implications for Studying Aberrant Sympathetic Outflow. International Society for Autonomic Neuroscience (ISAN), Giessen, Germany, July 29 – August 2, 2013
7. **Shoemaker, J.K.** (Chair) Central Autonomic Control in Humans: In Search of a Networked Neural System. International Society of Autonomic Neuroscience (ISAN), Stresa, Italy, Sept 26-30, 2015.
8. Kuroiwa, Y., and Shoemaker, J.K. (Co-Chairs). Basic and Clinical insights into Oxytocin's Effects on Augmenting Autonomic and Anti-Stress Activity. International Society for Autonomic Neuroscience (ISAN), Nagoya, Japan, Aug 31 – Sept 2, 2017.
9. **Shoemaker, J.K.** (Chair) Sympathetic Neurovascular Transduction in Humans: Are we there yet? Experimental Biology, San Diego, April 22-25, 2018

Invited Symposium Presentations

1. **Shoemaker, J.K.** Reflex Circulatory Control. Canadian Society for Exercise Physiology meeting, Niagara-on-the-Lake, Ontario. Oct. 2003.
2. **Shoemaker, J.K.** Neurovascular Control from Head to Toe. Society for Exercise Physiology; Young Investigator Award reception lecture. Saskatoon, Oct. 2004.
3. **Shoemaker, J.K.** Sympathetic Discharge Patterns: Coded Information or Flotsam? European College of Sport Sciences Conference, Yvaskyla Finland, July, 2007.
4. **Shoemaker, J.K.** Central and peripheral contributions to blood pressure regulation during isometric exercise. Canadian Society for Exercise Physiology Annual Meeting, London, Ontario, November 15, 2007.
5. **Shoemaker, J.K.** The cortical associations with baroreflex cardiovascular control in humans. Physiological Society thematic meeting: Determining Control of the cardiovascular system in health and disease. Leeds, United Kingdom March 14-17, 2008.
6. Jackson, D., **Shoemaker, J.K.** Ovariectomy Modifies the Sympathetic Neuropeptide Y Control System in the Hindlimb Vasculature of Female Sprague-Dawley Rats. Physiological Society thematic meeting: Determining Control of the cardiovascular system in health and disease. Leeds, United Kingdom March 14-17, 2008.
7. Kimmerly, D.S., **Shoemaker, J.K.** Physiological Society thematic meeting: Determining Control of the cardiovascular system in health and disease. Leeds, United Kingdom March 14-17, 2008.
8. **Shoemaker, J.K.**, Nolan, R.P. I-START: Internet-based strategic transdisciplinary approach to risk reduction and treatment. Canadian Stroke Network Annual General Meeting, Winnipeg, Canada, Sept 16, 2008.
9. **Shoemaker, J.K.**, Salmanpour, A., & Brown, L. Action potential content in postganglionic muscle sympathetic nerve activity from humans. ISAN 2009, 6th Congress of the International Society for Autonomic Neuroscience. Sydney, Australia September 1-4, 2009
10. Kimmerly, D.S. & **Shoemaker, J.K.** Central autonomic cardiovascular control in humans: Insights from neuroimaging experiments utilizing lower body negative pressure. ISAN 2009, 6th Congress of the International Society for Autonomic Neuroscience. Sydney, Australia September 1-4, 2009
11. **Shoemaker, J.K.** Petrella, R.J. Building a successful collaboration among clinicians, researchers, and graduate students. Aging Rehabilitation and Geriatric Care/Faculty of Health Sciences (ARGC)/FHS) Symposium entitled: "Building Collaborative Research Momentum in ARGC", Parkwood Hospital, London, ON. 2010
12. **Shoemaker, J.K.** Exercise, Aging and the Brain. Keynote Address, Research to Action Conference, Centre for Activity and Aging, London, ON. 2010
13. **Shoemaker, J.K.** Assessment of the cortical autonomic network and cardiovagal modulation in health and hypertension during submaximal handgrip. Behavioural Cardiology and Hypertension symposium: International Society of Hypertension annual meeting, Vancouver, September 25, 2010.
14. **Shoemaker, J.K.** Clarson, C. Exercise is Medicine: Overview of Local (London) Research Related to Childhood Obesity. Knowledge-to-Action Workshop (HSFO-funded), London, Ontario. Oct. 15, 2010.
15. **Shoemaker, J.K.** Does the cortical autonomic network "listen" or "speak" during cardiovascular arousal? ISAN 2011, 7th Congress of the International Society for Autonomic Neuroscience. Buzios, Rio de Janeiro, Brazil. September 12-16, 2011.
16. **Shoemaker, J.K.** The cortical autonomic network in humans. Autonomic Nervous System Control of the

Heart in Health and Disease: Bridging the gap between knowledge and therapeutics symposium. UCLA July 19-20, 2012.

17. **Shoemaker, J.K.** The Cortical Autonomic Network in Humans: Active Versus Passive Associations With Reflex Cardiovascular Control. Croatian Physiological Society, Zagreb, Croatia. September 14-16, 2012.
18. **Shoemaker, J.K.** The “Muscle-Brain-Heart” connection in humans: Exposing the cortical circuitry associated with autonomic cardiovascular arousal during exercise. Canadian Society for Exercise Physiology, Regina, Saskatchewan. October 10 – 13, 2012.
19. **Shoemaker, J.K.** Cortical circuitry associated with cardiovascular arousal during exercise in humans. Experimental Biology 2013, Boston, Massachusetts, April 20 – 24, 2013.
20. **Shoemaker, J.K.** Subpopulations and latency variations in multi-unit action potentials from human sympathetic nerve recording: impact of age and disease. International Society for Autonomic Neuroscience (ISAN), Giessen, Germany, July 29 – August 2, 2013.
21. **Shoemaker, J.K.** Exercise and Brain Health. Profiles in Collaborative Research: Neurology and Concussions, Lawson Health Research Institute, ARGC Research Day, Feb, 2014.
22. **Shoemaker, J.K.** Reflex cerebrovascular control in humans: parsimony cannot play here! Experimental Biology (EB), San Diego, California, April 26-30, 2014.
23. **Shoemaker, J.K.** Age, Exercise and Brain Plasticity. International Society for Gravitational Physiology, Waterloo, Ontario, June 17, 2014.
24. **Shoemaker, J.K.** Action potential recruitment in sympathetic nerve activity. Experimental Biology (EB), San Diego, California, April 26-30, 2014.
25. **Shoemaker, J.K.** Cortical pathways and cardiovascular control during exercise. Saltin International Graduate Course, Old Mill, Toronto, Canada. Oct. 10-14, 2015
26. **Shoemaker, J.K.** Neuroprotective effects of exercise in health and disease. Saltin International Graduate Course, Old Mill, Toronto, Canada. Oct. 10-14, 2015
27. **Shoemaker, J.K., Klassen S.** Simulated microgravity and the autonomic nervous system. Computers in Cardiology, Cardiology and Spaceflight Workshop, Simon Fraser University, Harbour Centre Campus, Vancouver, Sept 12, 2016
28. **Shoemaker, J.K., Fraser, D.** Metabolomics profiling in adolescent concussion. University Health Network Concussion Symposium, Toronto, Ontario, January 21, 2017.
29. **Shoemaker J.K. Challenges in Measuring Cerebrovascular Control.** American College of Sports Medicine, Denver CO, May 31-June 2 2017.
30. **Shoemaker J.K.,** Exercise and Brain Health. Michigan Physiological Society, Alma Michigan, June 8, 2017. For High School Teachers and Students.
31. **Shoemaker J.K.,** Methodological Approaches to Assessment of Autonomic Control of Peripheral Circulation in Humans. International Society for Autonomic Neuroscience (ISAN), Nagoya, Japan, Aug 31- Sept 2, 2017.
32. **Shoemaker, J.K.** Sympathetic Sympathy in the Time of Stress. Okanagan Cardiovascular and Respiratory Symposium. Vernon, B.C., March 17, 2018.
33. **Shoemaker, J.K.** Cerebral blood flow and its measurement: Implications for aging and disease. Cerebral Hypoperfusion Summit, University of Waterloo, Waterloo, ON. April 4, 2018.
34. **Shoemaker, J.K.** Learning the language of the autonomic nervous system. 50th Anniversary of Kinesiology Summit, University of Waterloo. April 27, 2018.

35. **Shoemaker, J.K.** Exercise and Brain Health. 8th Annual London Symposium for Mental Health. Four Points Hotel, London, ON. November 16, 2018
36. **Shoemaker, J.K.** Contribution of Large Arteries to Cerebral Blood Flow. Presented in Integrated Regulation of Cerebral Blood Flow, Royal Society, Chicheley, U.K., Dec 4, 2018.
37. **Shoemaker, J.K.** Large cerebral artery contributions to cerebral perfusion in health and heart disease MEDSCI NZ, September 4, 2019, Queenstown New Zealand.
38. **Shoemaker, J.K.** How to decrease dementia risk: Exercise your body. Can We Prevent Some Dimensias Now? October 17, 2019, University of Western Ontario, London, Ontario, Canada

Invited Presentations to University Groups

1. **Shoemaker, J.K.** Understanding age-related injury mechanisms and risk. University of Guelph Faculty of Human Biology Annual Symposium, 1994.
2. **Shoemaker, J.K.** Blood flow determination in human subjects. General Clinical Research Center lectures series, The Milton S. Hershey Medical Center, the Pennsylvania State University, 1998.
3. **Shoemaker, J.K.** Short-term control of limb vascular tone in humans. Physiology Seminar Series, University of Western Ontario, 1999.
4. **Shoemaker, J.K.** Sympathetic neural reflexes and vascular control in humans following simulated microgravity. Canadian Society for Exercise Physiology annual conference, Toronto, Ontario. 1999
5. **Shoemaker, J.K.** Muscle blood flow dynamics in heart failure. Research Rounds, Toronto General Hospital, May 30, 2000.
6. **Shoemaker, J.K.** Sympathetic response to orthostatic stress: Complex physiology. Anesthesia Research Group, University of Wisconsin, Milwaukee Veterans Hospital, Nov. 30, 2000.
7. **Shoemaker, J.K.** Mechanism(s) of Orthostatic Intolerance Following Space Flight: Autonomic Dysregulation or Hypovolemia? Kinesiology Graduate Student Seminar Series, McMaster University, Jan.25, 2001
8. **Shoemaker, J.K.** Autonomic Dysregulation Following Real or Simulated Microgravity. Anatomy and Cellular Physiology Seminar Series, University of Western Ontario. October, 2001.
9. **Shoemaker, J.K.** Sympathetic regulation of vascular tone during exercise. Exercise Physiology Seminar Series, Kent State University, October, 2001.
10. **Shoemaker, J.K.** Control of blood flow at the exercise onset. Tsukuba University, November, 2001.
11. **Shoemaker, J.K.** Control of blood flow at the exercise onset. Japan Women's College of Physical Education, November, 2001.
12. **Shoemaker, J.K.** Control of blood flow at the exercise onset. Kobe University, November, 2001.
13. **Shoemaker, J.K.** Autonomic dysregulation following real and simulated space flight. University of British Columbia, School of Human Kinetics Seminar Series, Jan./2002.
14. **Shoemaker, J.K.** Gender affects reflex cardiovascular control. University of Waterloo, Kinesiology Graduate Student Seminar Series, March, 2002.
15. **Shoemaker, J.K.** Autonomic dysregulation following real and simulated microgravity. J.B. Pierce Laboratory, Yale University, Seminar Series, March, 2002.
16. **Shoemaker, J.K.** Forebrain and Cerebrovascular Responses to Baroreceptor Unloading in Conscious Humans. Robarts Research Institute Neuroimaging Group, May, 2003.
17. Jackson, D. & **Shoemaker, J.K.** Contributions of α and NPY-Y1 receptor activation to basal hindlimb blood flow in rats. Graduate Student Symposium, University of Guelph, June 2003.
18. **Shoemaker, J.K.** Neurovascular Control from Head to Toe. University of Waterloo, Kinesiology Graduate Student Seminar Series, March, 2003.

19. **Shoemaker, J.K.** Sympathetic Neural Discharge Patterns: Coded Information or Flotsam? University of Western Ontario, Dept. of Physiology and Pharmacology Seminar Series, Nov, 2003.
20. **Shoemaker, J.K.** Sympathetic Neural Discharge Patterns: Coded Information or Flotsam? Dept. of Integrative Physiology, University of North Texas Health Science Center. Fort Worth, Texas. Feb. 2004.
21. **Shoemaker, J.K.** Cardiovascular deconditioning and reflex autonomic control. New Jersey Medical School, Veterans Affairs Hospital, Feb. 2004.
22. **Shoemaker, J.K.** Cardiovascular deconditioning and skeletal muscle reflexes. Blomqvist Symposium, University of Texas, Southwestern, May, 2004.
23. **Shoemaker, J.K.** Functional neuroanatomy of central autonomic control in conscious humans. University of Calgary, July, 2004.
24. **Shoemaker, J.K.** Functional Forebrain Organization of Central Autonomic Control in Humans: Potential For Understanding Neurovascular Control in Humans? Biomedical Engineering Seminar Series, University of Western Ontario, London, Ontario, Dec. 1, 2004
25. **Shoemaker, J.K.** Gender affects sympathetic neurovascular control. Graduate seminar series, Departments of Community Health, Brock University, London, Ontario, April 29, 2005
26. **Shoemaker, J.K.** Multi-level impact of gender on sympathetic neurovascular control. University of Texas, Health Sciences Center, San Antonio, October 24, 2005
27. **Shoemaker, J.K.** Multi-level impact of gender on sympathetic neurovascular control. Texas Lutheran University, October 25, 2005
28. **Shoemaker, J.K.** Gender affects neuropeptide Y control of hindlimb vascular control. Texas A & M University, Dallas, October 26, 2005
29. **Shoemaker, J.K.** Multi-level impact of gender on sympathetic neurovascular control. Institute of Exercise and Environmental Medicine, Fort Worth Texas, October 27, 2005.
30. **Shoemaker, J.K.** Multi-level impact of gender on sympathetic neurovascular control. University of North Texas, Health Sciences Center, October 28, 2005.
31. **Shoemaker, J.K.** & Hughson, R.L. WISE 2005: Canadian Studies And Experiences in the Toulouse Long-Term Bed Rest in Women. Ontario Exercise Physiology, Barrie, Ontario, Jan 30, 2006.
32. **Shoemaker, J.K.** WISE 2005: Women International Space Simulation for Exploration Impact of 60 days complete bed rest on cardiovascular structure and function. Cardiac and Circulatory Physiology Research Rounds, Mt. Sinai Hospital, Toronto, May 4th, 2007
33. **Shoemaker, J.K.** Simulating Life in Space to Study Life on Earth. Age and Geriatric Rehabilitation Centre, Parkwood Hospital, London, Ontario, June 8, 2007
34. **Shoemaker, J.K.** Sympathetic Discharge Patterns: Coded Information or Flotsam? General Clinical Research Centre, College of Medicine, Penn State University, The Milton S. Hershey Medical Centre, Hershey, Pennsylvania, Aug 1, 2007.
35. **Shoemaker, J.K.** The Cortical Autonomic Network Associated With Baroreflex Cardiovascular Control in Humans. University of Guelph, February 25, 2008.
36. **Shoemaker, J.K.** Functional Organization of the Cortical Autonomic Network in Humans. Heart Failure Group, University of Western Ontario, March 6, 2008
37. **Shoemaker, J.K.** The Cortical Autonomic Network Associated With Baroreflex Cardiovascular Control in Humans. Dept. Anatomy and Cell Biology, University of Western Ontario, April 24, 2008.
38. **Shoemaker, J.K.** Sex Hormones and Neurovascular Control. Robarts Research Institute, London, Ontario, May 15, 2008
39. **Shoemaker, J.K.** Sex Hormones and Neurovascular Control. Graduate Seminar Series, Northern Ontario School of Medicine and Lakehead University, Thunder Bay, Ontario, May 27, 2008

40. **Shoemaker, J.K.** The Cortical Network Associated With Heart Rate Control in Humans, Epilepsy Research Day, The University of Western Ontario, June 3, 2008.
41. **Shoemaker, J.K.** Is Poisuelle Enough? Challenges and Opportunities in Assessing Integrative Neurovascular Control. Department of Medicine, Physiology and Pharmacology, University of Missouri- Columbia, Columbia, Missouri, February 2, 2009.
42. **Shoemaker, J.K.** Examination of peripheral vascular bed mechanics to address difficulties in assessing acute and chronic vasomotor changes. McMaster University, ADInstruments Training Workshop, June 8, 2011.
43. **Shoemaker, J.K.** Chemoreflex contributions to sympathetic action potential recruitment. University of North Texas Health Sciences, Integrative Physiology Seminar Series, March 20, 2013.
44. **Shoemaker, J.K.** Exercise and Brain Health in Ischemic Heart Disease. Cardiology Rounds, Western University, London, Ontario, Nov. 26, 2015
45. **Shoemaker, J.K.** Exercise, Brain Health, and Autonomic Function in Ischemic Heart Disease. Interventional Cardiology, University of Michigan, March 2, 2016.
46. **Shoemaker, J.K.** Forebrain circuitry associated with autonomic function in humans. University of British Columbia, Okanagan, June 27, 2016.
47. **Shoemaker, J.K.** The brain and cardiovascular regulation. Saltin Graduate Course, Copenhagen, DK. September 20, 2016.
48. **Shoemaker, J.K.** Is Leadership an Oxymoron? Scholars to Leaders Lecture, School of Graduate and Postdoctoral Studies, Western University, London, Ontario. January 25, 2017.
49. **Shoemaker J.K.**, Sympathetic Sympathy: Recruitment strategies in the sympathetic nervous system. University of Texas, Arlington. March 1, 2017.
50. **Shoemaker J.K.**, Sympathetic Sympathy: Recruitment strategies in the sympathetic nervous system. Pearce Laboratory, Yale University, New Haven CT, March 27, 2017.
51. **Shoemaker, J.K.**, The Cortical Autonomic Network in Humans. Departments of Physiology, Wayne State University, Dec. 7, 2017.
52. **Shoemaker J.K.**, Sympathetic Sympathy: Neural Communication in Stress. Department of Physiology, Wayne State University, Dec. 7, 2017.
53. **Shoemaker J.K.** Neural Control of Stress Responses During Breath Hold Diving. Western University, Biochemistry Department Graduate Symposium, May, 5, 2018.
54. **Shoemaker J.K.**, Optimizing Brain Health Across the Lifespan: Canadian Centre for Activity and Ageing Annual Training Symposium, Western University, May 27, 2018.
55. **Shoemaker J.K.** Exercise and Brain Health. School of Neuroscience Graduate Seminar, University of Verona, Verona, Italy. Nov 21, 2018.
56. **Shoemaker, J.K.** Action Potential Detection in Sympathetic Nerve Activity. University of Bristol, Physiology Department, Bristol, U.K. Nov 29, 2018.

Conference Presentations

1. **Shoemaker, J.K.**, Green, H.J., & Howes, S. (1991). Short-term supramaximal exercise training: Effects on submaximal respiratory gas exchange and cardiac function. *Canadian Association of Sport Sciences Conference*.
2. Howes, S., **Shoemaker, J.K.**, & Green, H.J. (1991). Short-term supramaximal training: Effects on blood metabolites and catecholamines during submaximal exercise. *Canadian Association of Sport Sciences*

Conference.

3. Shoemaker, J.K., Tschakovsky, M.E., Hergott, C., & Hughson, R.L. (1995). Interactive roles of perfusion pressure, workload, and contraction rate in the control of exercise hyperemia: Support for the muscle pump hypothesis? *American College of Sports Medicine Specialty Conference: Regulation of Oxidative Metabolism and Blood Flow in Skeletal Muscle*.
4. Hughson, R.L., Shoemaker, J.K., Tschakovsky, M.E., & Kowalchuk, J.M. (1995). Quantitative estimate of muscle VO₂ at onset of forearm exercise above and below the heart. *American College of Sports Medicine Specialty Conference: Regulation of Oxidative Metabolism and Blood Flow in Skeletal Muscle*.
5. Kowalchuk, J.M., Shoemaker, J.K., Scheuermann, B.W., Tschakovsky, M.E. & Hughson, R.L. (1995). Electrolyte and acid-base regulation at the onset of forearm exercise above and below the heart. *American College of Sports Medicine Specialty Conference: Regulation of Oxidative Metabolism and Blood Flow in Skeletal Muscle*.
6. MacDonald, M.J., Shoemaker, J.K., Pozeg, Z.I., Naylor, H., & Hughson, R.L. (1995). Dynamics of femoral artery blood flow and oxygen uptake at onset of upright and supine knee extension ergometry. *American College of Sports Medicine Specialty Conference: Regulation of Oxidative Metabolism and Blood Flow in Skeletal Muscle*.
7. Borkoff, C., Shoemaker, J.K., MacDonald, M.A., Pozeg, Z.I., & Hughson, R.L. (1995). Cardiac output and quantitative femoral artery blood flow during knee extension ergometry. *American College of Sports Medicine Specialty Conference: Regulation of Oxidative Metabolism and Blood Flow in Skeletal Muscle*.
8. Tschakovsky, M.E., Pozeg, Z.I., Shoemaker, J.K., Hopman, M.T.E., & Hughson, R.L. (1995). Evidence for an immediate vasodilatory effect on blood flow with muscle contraction: Comparison with mechanical muscle pump effect. *American College of Sports Medicine Specialty Conference: Regulation of Oxidative Metabolism and Blood Flow in Skeletal Muscle*.
9. Tutungi, E., T.D. Wilson, J.M. Serrador, M. Tulppo, A.W. Gelb, & Shoemaker, J.K. Effects of noradrenaline and phentolamine on cerebral vasculature in healthy humans. *NSC 2000 Conference*.
10. Cowie, D.A., Gelb, A.W., Shoemaker, J.K. (2001). Incidence and significance of orthostatic intolerance following general anesthesia. *Canadian Anesthesiologists' Society 57th Annual Meeting*.
11. Hughson, R.L., O'Leary, D.D., Shoemaker, J.K., Edwards, M.R., Hargens, A.R., Watenpaugh, D.E., Lee, S.M.C., Rogers, C.J., Meyer, R.S., Langemack, A., Macias, B., Kimura, S., Steinbach, G., Groppo, E., Vanderlinden, R., Boda, W.L., Ziegler, M.G., Smith, S.M., & Schneider, S.M. (2001). Heart rate and vascular components of baroreflex after 30-day bed rest. *22nd Annual International Gravitational Physiology Meeting. Budapest*.
12. Tulppo, M.P., Shoemaker, J.K., Tutungi, E., Gelb, A., Hughson, R.L. & Huikuri, H.V. (2001). Effects of circulating norepinephrine on sympathetic outflow. *28th Nordic Congress of Cardiology, Oslo, Norway*.
13. Hughson, R.L., Edwards, M.R., O'Leary, D.D., Topor, Z.L., Lin, D.C. Shoemaker, J.K., & Gelb, A.W. (2002). Simultaneous control of total peripheral vascular resistance by arterial and cardiopulmonary baroreceptors. *Canadian Physiological Society Annual Meeting, Vernon, B.C.*
14. Kimmerly, D.S., Sinoway, L.I. & Shoemaker, J.K. (2002). Sympathetic responses to Valsalva's manoeuvre following bed rest. *Canadian Physiological Society Annual Meeting, Vernon, B.C.*
15. Jackson, D.N., Noble, E. & Shoemaker, J.K. (2003). NPY Y1-receptor activation affects baseline hindlimb vascular conductance in Sprague-dawley rats. *Ontario Exercise Physiology meeting*.
16. Steinback, C.D., O'Leary, D.D., Wang, S.S., & Shoemaker, J.K. (2003). Peripheral pulse pressure responses to postural stress do not reflect those at the carotid artery. *Ontario Exercise Physiology meeting*.

17. Wilson, T.D., Lee, T.Y. & **Shoemaker, J.K.** (2003). Assessment of regional cerebrovascular responses during sympathoexcitation: A Computed Tomography Study. Ontario Exercise Physiology meeting.
18. Galigekere, R., & **Shoemaker, J.K.** (2003). On repeatability of measures based on the peak powers derived from the power spectrum density of MSNA. FASEB, San Diego, CA.
19. **Shoemaker, J. K.** O'Leary, D.D. & Hughson, R.L. (2003). Repeatability of Sympathetic Nerve Activity Recordings. Humans in Space Conference, Banff, AB.
20. Wong, S., Kimmerly, D.S., Gati, J.S., Menon, R.S., Cechetto, D.F., & **Shoemaker, J.K.** (2006). An fMRI Study of the Cortical Network Associated with Cardiovascular Response during Isometric Exercise. Human Brain Mapping Conference, Chicago, IL, USA.
21. Wong, S., Kimmerly, D.S., Gati, J.S., Menon, R.S., & **Shoemaker, J.K.** (2007). Cortical modulation and representation of cardiovascular responses. Human Brain Mapping conference, Florence, Italy.
22. Steinback, C.D., Salmanpour, A., Breskovic, T., Dujic, Z., **Shoemaker, J.K.** (2010). The recruitment pattern of post-ganglionic sympathetic neurons from multi-unit recordings in humans. Ontario Exercise Physiology Annual Winter Meeting, Barrie, ON.
23. Mattar, L., Jackson, D.N., Noble, E., **Shoemaker, J.K.** (2010). Modulation of hindlimb blood flow variability by estrogen and the sympathetic nervous system in rats. Ontario Exercise Physiology Annual Winter Meeting, Barrie, ON.
24. Neilson, C.A., Steinback, C.D., Salzer, D., **Shoemaker, J.K.** (2010). Vascular stiffening during hypoxia and hypercapnia related to muscle sympathetic nerve activity. Ontario Exercise Physiology Annual Winter Meeting, Barrie, ON.
25. Goswami, R., Frances, M.F., **Shoemaker, J.K.** (2010). Cortical activation patterns associated with somatosensory inputs. Ontario Exercise Physiology Annual Winter Meeting, Barrie, ON.
26. Anazodo U.C, St Lawrence, K., **Shoemaker, J.K.** (2011, February). Brain Plasticity: Cerebrovascular reactivity mapping in cardiovascular disease. University of Western Ontario, Medical Biophysics Seminar, London, ON.
27. Anazodo U.C., Suskin, J., Wang, K., **Shoemaker, J.K.**, St Lawrence, K. (January 2011). Measuring cerebrovascular reactivity in cardiovascular disease patients. 2011 Imaging Network of Ontario.
28. Anazodo U.C. (September 2010). Hyperperfusion in AD: Critical Review. Neuroimaging Journal Club, Lawson Health Research Institute, London, ON
29. Anazodo U.C, St Lawrence, K., **Shoemaker, J.K.** (2010, May). Cerebrovascular Health and Brain Plasticity. University of Western Ontario, Medical Biophysics Seminar, London, ON

Invited Presentations to Professional Groups

1. **Shoemaker, J.K.** Control and Interaction of the Energy Supply Systems in Skeletal Muscle. Bodylife Conference for Exercise Professionals, London, Ontario, 1994.
2. **Shoemaker, J.K.** Mechanisms and Management of Lower Limb Overuse Injuries. Bodylife Conference for Exercise Professionals, London, Ontario, 1994.
3. **Shoemaker, J.K.** Sports Medicine for Life. Trainability and injury patterns of biological tissues in children, adults, and "mature" adults. Bodylife Conference for Exercise Professionals, London, Ontario, 1995.

4. **Shoemaker, J.K.** What makes those muscles hurt? Mechanisms of muscles strains, tendonitis, and delayed onset of muscle pain. Bodylife Conference for Exercise Professionals, London, Ontario, 1995.
5. **Shoemaker, J.K.** Exercise can hurt but it can also heal. Theoretical and practical bases for re-conditioning strategies following injury. Bodylife Conference for Exercise Professionals, London, Ontario, 1995.
6. **Shoemaker, J.K.** & Sinoway, L.I. (1999). Sympathetic contributions to orthostatic tolerance and vascular tone following bed rest. First Biennial Space Biomedical Investigator's Workshop. League City, Texas.

UNIVERSITY ADMINISTRATIVE DUTIES

Department, School or disciplinary area:

1. Kinesiology Graduate Affairs Ad Hoc Committee, member, 2002
2. Kinesiology Graduate Affairs Committee, member, 2003 – 2005,
3. Kinesiology Ad hoc research strategic hiring committee, 2013
4. Kinesiology Ad hoc curricular review committee(s), 2012
5. Kinesiology Appointments Committee, 2013-2015
6. Kinesiology Graduate Affairs Committee, member 2014-2017
7. Kinesiology Ad hoc curricular development committee(s), 2014-2015
8. Kinesiology Curriculum and Education Committee, 2015-2017
9. Kinesiology Ad hoc committee on engagement of alumni and external partners
10. Kinesiology Appointment Committee, Chair 2018

Faculty

11. Faculty of Health Sciences Research Strategic Planning Task Force, member: 2006
12. Faculty of Health Sciences Research Strategic Planning Task Force, Chair: 2007
13. Faculty of Health Sciences Research Committee, 2013-2016
14. Faculty of Health Sciences, Associate Dean, Research 2017 to present (this position involves involvement in many City, University, Faculty, and Departmental/School committees focusing on research acceleration activities)

University

15. Research Ethics Review Board, member, 2000
16. Radiation Safety Committee, member, 2002 – 2006
17. University Council of Animal Care, Chair, 2004 – 2006
18. University Council of Animal Care, member, 2010 - present
19. 2009 J. Allyn Taylor International Prize in Medicine Cardiovascular Research Symposium, Poster Judge, November 4, 2009
20. See-The-Line traumatic brain injury committee, 2012-2016
21. Decanal Search Committee, member, 2014-2015
22. Bone and Joint Institute, MSK Seminar Series, FHS representative 2016- 2017
23. Parkwood Institute Research-Specific Endowments (PIRSE) Selection Committee, Chair, 2013-2017
24. Subcommittee on Western Humanitarian Awards (SUWHA), 2016
25. Appointment Committee, Vice President Research 2016
26. Kirkley Chair Appointment Committee, 2016
27. Western University Mental Health Strategic Planning Committee, 2016 – 2019
28. Subcommittee on Western Humanitarian Awards, 2017
29. Centre for Studies in Family Medicine Advisory Council, 2017 – 2019
30. London Health Vision Steering Committee, 2017-present

31. Core Planning Group, Western University, 2017 – present
32. Children's Health Research Collective, 2018 – present (Vice Chair; 2020 – present)
33. Acting Associated Vice President (Research) 2019 - present

Faculty Association

N/A

COMMUNITY SERVICE

Research Community

1. Associate Editor: Applied Physiology, Nutrition and Metabolism 2007-2010
2. Associate Editor: Frontiers in Clinical Physiology, 2011-2013
3. Associate Editor: Frontiers in Autonomic Neuroscience, 2014-present
4. President: International Society for Autonomic Neuroscience, 2015-2017
5. Past-Present: International Society for Autonomic Neuroscience, 2017-2019

Grant Selection Committees

1. American College of Sports Medicine – Young Investigator Award selection committee 2007, 2008
2. NSERC GSC 1011B, 2008 – 2010
3. NSERC Steacie Award, 2013
4. Canadian Institutes for Health Research, Fellowships, 2014-2015, 2015-2016, 2016-2017, 2018-2019, 2019-2020

Journal Reviews

1. Editorial Board: Journal of Applied Physiology (2008-2011)
2. Comprehensive Physiology
3. Journal of Physiology
4. American Journal of Physiology
5. Journal of Applied Physiology
6. Medicine and Science in Sports and Exercise
7. Applied Physiology, Nutrition and Metabolism
8. International Journal of Sports Medicine
9. Stroke
10. Canadian Journal of Anaesthesia
11. Anesthesia and Analgesia
12. Circulation
13. Clinical Autonomic Research
14. Acta Astronautica

Research Grant Reviews

1. Natural Sciences and Engineering Research Council of Canada
2. Heart and Stroke Foundation of Canada
3. Canadian Institutes for Health Research
4. College of Reviewers for the Canada Research Chairs Program.
5. American College of Sports Medicine – Young Investigator Award selection committee 2007, 2008

Community Outreach

1. Elementary class (grade five, seven) field trip to examine the cardiovascular system.

Conference Organizer

1. Organizer and host of the Microneurographers Organization of Ontario Conference, The University of Western Ontario, May 13, 2009.

2. Chair; Organizing committee for the Ontario Exercise Physiology conference, Barrie, Ontario, January 26-28, 2007
3. Organizing committee (Symposia), Canadian Society for Exercise Physiology annual meeting, Nov 14-17, 2007.

INVITED PRESENTATIONS TO COMMUNITY INTEREST GROUPS

1. **Shoemaker, J.K.** Exploring regions of the brain associated with blood pressure control. Heart and Stroke Foundation fundraising golf tournament, Country View Golf Course, Chatham, Ontario, July, 2004.
2. **Shoemaker, J.K.** Humans in space: Physiologic outcomes of reduced physical activity. Retired Research Association, Wolseley Barracks, London, ON, Nov 2, 2009.
3. **Shoemaker, J.K.** Exercise and Brain Health. Take Control of Your Health/Wellness symposium. London, Ontario, April 2, 2016

MEMBERSHIPS

American Physiological Society
International Society for Autonomic Neuroscience
Canadian Society for Exercise Physiology
Bone and Joint Institute (University of Western Ontario)
Brain and Mind Institute (University of Western Ontario)
Institute for Earth and Space Exploration (University of Western Ontario)

PATENTS

1. Metabolomics profiling of concussion. 2015 US Patent and Trademark Office Serial No. 62/135886.