

CURRICULUM VITAE- Jeremy Mikhail Kellawan

Assistant Professor

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Assistant Professor, Health and Exercise Science

Present

University of Oklahoma, Norman, Oklahoma, USA

Department of Health and Exercise Science

Director: Human Circulation Research Laboratory

Training and Education

Postdoctoral Fellow, Kinesiology (integrative vascular physiology)

2017

University of Wisconsin, Madison, Wisconsin, USA

Department of Kinesiology, Integrative Exercise Physiology Laboratory

Supervisor: Dr. William G. Schrage

Ph.D., Kinesiology (exercise physiology)

2012

Queen's University, Kingston, Ontario, Canada

School of Kinesiology and Health Studies, Human Vascular Control Laboratory

Supervisor: Dr. Michael E. Tschakovsky

M.Sc., Kinesiology (occupational exercise

2005

physiology) University of Victoria, Victoria, British

Columbia, Canada School of Exercise Science, Physical and

Health Education Supervisor: Dr. Lynne Stuart-Hill

B.Sc. Honours (Human Kinetics, exercise physiology)

2005

University of Guelph, Guelph, Ontario, Canada

Human Biology and Nutritional Sciences (Now, Human Health and Nutritional Sciences)

Supervisors: Dr. Jack K. Barclay, Dr. Brian A. Wilson

Research Interests

I am interested in researching the mechanisms and characteristics coupling cardiovascular support to metabolic demand in skeletal muscle and cerebral circulations. Specifically, I will investigate vascular control mechanisms in these circulations in response to environmental and exercise stresses. Further, I aim to apply my research by designing physical activity/exercise interventions to improve vascular responses in healthy and disease populations.

Research Support

April 18, 2018 Junior Faculty Fellowship, College of Arts and Sciences, University of Oklahoma – “Mechanisms of Cerebrovascular Control During Exercise in Hypertensive Humans” - \$7,000 – Primary Investigator

May 1, 2015-2017 Wisconsin Alzheimer's Disease Research Center's Pilot Funding – “Mechanisms of cerebrovascular dysfunction in middle-aged adults with insulin resistance” - ~ \$30,000/yr – Co- investigator, Project leader

January 1, 2015-2017 American Heart Association Postdoctoral Fellowship – “Mechanisms of cerebrovascular control: Acute insulin surges lead to brain hypoperfusion in human metabolic syndrome” – ~\$ 42,000/yr - Primary Investigator (15POST23100020)

July 1, 2014-2017 University of Wisconsin – Madison, Graduate School, “Insulin Resistance in Children: Neural, Vascular and Cognitive Consequences” – ~ \$50,000 – Co-investigator, Project leader

Academic Awards and Honors

The Physiological Society Travel Award	2019
American Physiological Society, Environmental and Exercise Physiology Section, Partnership for Clean Competition Postdoctoral Research Award	2017
American Physiological Society and The Physiological Society Joint Meeting Travel Award	2016
American Physiological Society, Environmental and Exercise Physiology Section, Postdoctoral Research Award	2016
American Heart Association Postdoctoral Fellowship	2015
American Physiological Society, Environmental and Exercise Physiology Military Physiology Beginning Investigator Award	2015
American Physiological Society, Nike, Inc. Loren G. Myhre, Environmental and Exercise Physiology Postdoctoral Investigator Award	2014
Ontario Graduate Scholarship	2011-2012
R.S. McLaughlin Fellowship	2010-2012
Ontario Graduate Scholarship in Science and Technology	2008-2010
University of Guelph Employees Scholarship	2001-2005
Dean's List, College of Biological Sciences, University of Guelph Winter	2005
Dean's List, College of Biological Sciences, University of Guelph Fall	2004
University of Guelph Entrance Scholarship	2001
Ontario Scholar (OAC)	2001

Scholarly Publications (chronological order)

Original articles

1. Ashley, J.D., Shelley, J.H., Sun, J., Song, J., Trent, J.A., Larson, D., Larson, R., Yabluchanskiy, A., **Kellawan, J.M.** (2020). Cerebrovascular Responses to Graded Exercise in Young Healthy Males and Females. *Physiological Reports*, 8, e14622, <https://doi.org/10.14814/phy2.14622>
2. Stone, B.L., Beneda-Bender, M., McCollum, D.L., Sun, J., Shelley, J.H., Ashley, J.D., Fuenzalida, E., **Kellawan, J.M.** (2020). Understanding Cognitive Performance During Exercise in Reserved Officers' Training Corps: Establishing the Executive Function-Exercise Intensity Relationship. *Journal of Applied Physiology* 129, 846-854, <https://doi.org/10.1152/jappphysiol.00483.2020>
3. Gonzales, J.U., Fischer, S.M., Maharaj, A., Vellers, H., Anderson T, Karnjanapiboonwong A, Subbiah S, **Kellawan, J.M.**, Figueroa, A. (2020). Response of exercise-onset vasodilator kinetics to L-citrulline supplementation during different phases of the menstrual cycle. *Physiological Reports* 8, e14536, doi: 10.14814/phy2.14536.
4. **Kellawan, J.M.**, Peltonen, G.L., Harrell, J.W., Roldan-Azate, A., Wieben, O., Schrage, W.G. (2020) Differential contribution of cyclooxygenase to basal cerebral blood flow and hypoxic cerebral vasodilation. *American Journal of Physiology: Regulatory, Integrative and Comparative Physiology*, 318, R468-R479
5. Sun, J., Ashley, J., **Kellawan, J.M.**, (2019) Can Acupuncture Treatment of Hypertension Improve Brain Health? A Mini Review *Frontiers in Aging Neuroscience* 11(240), 1-8
6. Rosenberry, R., Tucker, W.J., Haykowsky, M.J., Trojacek, D., Chamseddine, H.H., Arena-Marshall, C.A., Zhu, Y., Wang, J., **Kellawan, J.M.**, Tian, F., Nelson, M.D., (2019) Determinants of skeletal muscle oxygen consumption assessed by near-infrared diffuse correlation spectroscopy during incremental handgrip exercise *Journal of Applied Physiology* 127, 698-706
7. Tucker, W.J., Rosenberry, R., Trojacek, D., Chamseddine, H.H., Arena-Marshall, C.A., Zhu, Y., Wang, J., **Kellawan, J.M.**, Haykowsky, M., Tian, F., Nelson, M.D. (2019) Studies into the determinants of skeletal muscle oxygen consumption: Novel insight from Near-infrared diffuse correlation spectroscopy *Journal of Physiology* 597 (11), 2887-2901
8. **Kellawan, J.M.**, Limberg, J.K., Scruggs Z.M., Nicholson, W.T., Schrage, W.G., Joyner, M.J., Curry, T.B. (2018) Phosphodiesterase-5 inhibition preserves exercise onset vasodilator kinetics when NOS activity

is reduced *Journal of Applied Physiology* 124(2), 276-282

9. Limberg, J.K., Malterer, K.R., **Kellawan, J.M.**, Schrage, W.G., Wilkins, B.W., Nicholson, W.T., Eisenach, J.H., Joyner, M.J., Curry, T.B. (2017) Potentiation of the NO-cGMP pathway and blood flow responses during dynamic exercise in healthy humans *European Journal of Applied Physiology* 117(2), 237-246
10. Hoscheidt, S.M*, **Kellawan, J.M***, Rivera, L., Berman, S., Turski, P., Carlsson, C.M., Asthana, S., Johnson, S.C., Rowley, H., Wieben, O., Schrage, W.G., Bendlin, B.B. (2017) Insulin resistance is associated with lower cerebral blood flow and hypoperfusion in cognitively healthy middle-aged adults. *Journal of Cerebral Blood Flow and Metabolism* 37(6), 2249-2261 (***co-first author**)
11. **Kellawan, J.M.**, Harrell, J.W., Roldan-Azate, A., Wieben, O., Schrage, W.G. (2017) Regional hypoxic cerebral vasodilation facilitated by diameter changes primarily in anterior versus posterior circulation. *Journal of Cerebral Blood Flow and Metabolism* 37(6), 2025-2034
12. **Kellawan, J.M.**, Peltonen, G.L., Schrage, W.G. (2016) To measure diameter or not: experimental design is key: Comments on Crosstalk 30: The middle cerebral artery diameter does/does not change during alterations in arterial blood gases and blood pressure. *Journal of Physiology* 000.0, 1-8
13. Limberg, J.K., Peltonen, G.L., Johansson, R.E., Harrell, J.W., **Kellawan, J.M.**, Eldridge, M.W., Sebranek, J.J., Walker, B.J., Schrage, W.G. (2016) Greater beta-adrenergic receptor mediated vasodilation in women using oral contraceptives. *Frontiers in Physiology* 7(215), 1-8
14. Limberg, J.K., Johansson, R.E., Peltonen, G.L., Harrell, J.W., **Kellawan, J.M.**, Eldridge, M.W., Sebranek, J.J., Schrage, W.G. (2016) β -adrenergic mediated vasodilation in young men and women: Cyclooxygenase restrains nitric oxide synthase. *American Journal of Physiology: Heart and Circulatory Physiology* 310(6), H756-H764
15. **Kellawan, J.M.**, Harrell, J.W., Schrauben, E.M., Hoffman, C.A., Roldan-Alzate, A., Schrage, W.G., Wieben, O. (2016) Quantitative cerebrovascular 4D flow MRI at rest and during hypercapnia challenge. *Magnetic Resonance Imaging* 34, 422-428
16. Walsh, J.J., Scribbans T., Bentley, R.F., **Kellawan, J.M.**, Gurd, B.J., Tschakovsky, M.E. (2016) Neurotrophic growth factor responses to lower body resistance training in older adults. *Applied Physiology, Nutrition, and Metabolism* 41(3), 315-323
17. Owen A.L., **Kellawan, J.M.** (2015) Upstream Stiffness, downstream problems: not all arteries are equal. *Journal of Physiology* 593(20) 4517-4518
18. **Kellawan, J.M.**, Johansson, R.E., Harrell, J.W., Sebranek, J.J., Walker, B.J., Eldridge, M.W., Schrage, W.G. (2015) Greater exercise vasodilation in women: role of nitric oxide synthase and cyclooxygenase *European Journal of Applied Physiology* 115(8), 1735-1746
19. **Kellawan, J.M.**, Bentley, R.F., Bravo, M.F., Moynes, J.S., Tschakovsky, M.E. (2014) Does oxygen delivery explain inter-individual variation in forearm critical impulse? *Physiological Reports* 2(11), e12203
20. Limberg, J.K., **Kellawan, J.M.**, Harrell, J.W., Johansson R.E., Eldridge, M.W., Proctor, L.T., Sebranek, J.J., Schrage, W.G. (2014) Exercise-mediated vasodilation in human obesity and metabolic syndrome: Effect of acute ascorbic acid infusion. *American Journal of Physiology: Heart and Circulatory Physiology* 307(6), H840-H847
21. Bentley, R. F., **Kellawan, J. M.**, Moynes, J. S., Poitras, V. J., Walsh, J. J., Tschakovsky, M. E. (2014) Individual susceptibility to hypoperfusion and reductions in exercise performance when perfusion pressure is reduced: evidence for vasodilator phenotypes. *Journal of Applied Physiology* 117(4), 392- 405
22. **Kellawan, J. M.**, Tschakovsky, M. E. (2014) The Single-Bout Forearm Critical Force Test: A New Method to Establish Forearm Aerobic Metabolic Exercise Intensity and Capacity. *PLoS ONE*, 9(4)
23. Moynes, J., Bentley, R.F., Bravo, M., **Kellawan, J.M.**, Tschakovsky, M.E. (2013). Persistence of functional sympatholysis post-exercise in human skeletal muscle. *Frontiers in Exercise Physiology*, 4(131), 1-15
24. **Kellawan, J.M.**, Stuart-Hill, L.A., Petersen, S.R. (2009) The Effects of Caffeine During Exercise in Fire Protective Ensemble. *Ergonomics* 52(11), 1445-1454

Original research abstracts

1. Ashley, J.D., Stone, B.L., Sun, J., Shelley, J.H., Ambrosio, L., Beneda-Bender, M., McCollum, D.L., Fuenzalida, E., **Kellawan, J.M.** High Intensity Exercise Compromises Prefrontal Cortex Oxygenation and Executive Function in Reserved Officer Training Corps Cadets. (2020) *FASEB Journal*, 34(S1)
2. Sun, J., Shelley, J.H., Ashley, J.D., Stone, B.L., Song, J., Trent, J.A., **Kellawan, J.M.** Cerebrovascular Responses to Graded Exercise Between Young Healthy Men and Women. (2020) *FASEB Journal*, 34(S1)
3. Trent, J.A., Stone, B.L., Sun, J., Ashley, J.D., Shelley, J.H., Ambrosio, L., Beneda-Bender, M., McCollum, D.L., Fuenzalida, E., **Kellawan, J.M.** Impacts of Concurrent Cognitive Challenge on Aerobic Performance During Graded Exercise. (2020) *FASEB Journal*, 34(S1)
4. Brubaker, J.M., Carter, K.J., Ward, A.T., **Kellawan, J.M.**, Harrell, J.W., Eldridge, M.W., Roldan, A., Wieben, O., Schrage, W.G. Does Hypoxia Affect Pulse Transit Time in Healthy Controls? (2020) *FASEB Journal*, 34(S1)
5. Muer, J.D., Ward, A.T., Carter, K.J., **Kellawan, J.M.**, Harrell, J.W., Roldan, A., Wieben, O., Eldridge, M.W., Schrage, W.G. Does Insulin Resistance Alter Pulse Transit Time in the Cerebral Circulation? (2020) *FASEB Journal*, 34(S1)
6. Gonzales, J.U., Fischer, S.M., Maharaj, A., **Kellawan, J.M.**, Figueroa, A. L-citrulline Does Not Change Blood Flow Kinetics At The Onset Of Exercise In Young Women. (2020) *Medicine & Science in Sports & Exercise*, 52(7S), p 225
7. Buchanan, S., Nguyen, M., Miller, R., **Kellawan, J.M.**, Black, C., Bembien, M., Bembien, D. C-miRNA Expression Responses to Whole-Body Vibration and Resistance Exercise in Postmenopausal Women. (2020) *Medicine & Science in Sports & Exercise*, 52(7S), p 491-492
8. Miller, R.M., Heishman, A.D., Freitas, E.D.S., Buchanan, S.R., Kaur, J., Brown, B.S., Peak, K.M., Norman, J.N., Joniak, K.E., **Kellawan, J.M.**, Pereira, H.M., Bembien, D.A., Bembien, M.G. Critical Ages For Changes In Isometric Force Production In Women Aged 20 To 89 Years. (2020) *Medicine & Science in Sports & Exercise*, 52(7S), p 558
9. Ashley, J.D., Shelley, J.H., Stone, B.L., Sun, J., Ambrosio, L., **Kellawan J. M.** Exercise-Onset-Induced Hypotension Activates Cerebrovascular Response to Exercise (2019) *Physiology 2019 Meeting*, Aberdeen, UK, Proc Physiol Soc (43) PC 125
10. Shelley, J.H., Ashley, J.D., Stone, B.L., Sun, J., Ambrosio, L., **Kellawan J. M.** Cerebrovascular Response to Graded Exercise in Young Men and Women: A Pilot Study (2019), *Physiology 2019 Meeting*, Aberdeen, UK, Proc Physiol Soc (43) PC 126
11. Stone B.L., Ashley, J.D., Skinner R.M., Polanco J.P., Walters M.T., **Kellawan J. M.** The Effects of a Short-Term Heat Acclimation Protocol in Elite Amateur Boxers (2019), *Physiology 2019 Meeting*, Aberdeen, UK, Proc Physiol Soc (43) PC 103
12. Stone, B., Miller, R.M., Heishman, A.D., Campbell, J.A., **Kellawan, J.M.**, (2018) Fitness and Performance to Load Carriage Specific Training in Reserved Officers Training Corps *Exp Biol Meeting*, San Diego, CA *FASEB Journal*, 32(1 supplement)
13. Ashley, J.D., **Kellawan, J.M.**, Gonzales, J.U., (2018) Effects of L-citrulline on Blood Pressure Response to Exercise in Older and Younger Adults *Exp Biol Meeting*, San Diego, CA *FASEB Journal*, 32(1 supplement)
14. Carter, K.J., **Kellawan, J.M.**, Ward, A.T., Johansson, R.E., Harrell, J.W., Peltonen, G.L., Sauder, C.J., Eldridge, M.W., Schrage, W.G., (2018) Does Obesity Differentially Impact Male and Female Responses to Skeletal Muscle Vasodilation During Exercise? *Exp Biol Meeting*, San Diego, CA *FASEB Journal*, 32(1 supplement)
15. Ward, A.T., Carter, K.J., Sauder, C., **Kellawan, J.M.**, Weiben, O., Schrage, W.G., (2018) Cerebrovascular Regulation During an Insulin-Glucose Challenge: Contribution of Nitric Oxide *Exp Biol Meeting*, San Diego, CA *FASEB Journal*, 32(1 supplement)
16. **Kellawan, J.M.**, Limberg, J.K., Scruggs Z.M., Nicholson, W.T., Schrage, W.G., Joyner, M.J., Curry, T.B., (2017) Individual and Combined Effects of Phosphodiesterase-5 and Nitric Oxide Synthase Inhibition to Vasodilation During Moderate Exercise *Exp Biol Meeting*, Chicago, IL *FASEB Journal*
17. Peltonen, G.L., **Kellawan, J.M.**, Ward, A.T., Carter, K.J., Carrel, A.L., Rehm, J.L., Oh, J.M., Bendlin,

- B.B., and Schrage, W.G. Oral Glucose Tolerance Test in Insulin Resistant Adolescents Induces Regionally Different Macro- and Microvascular Responses in the Cerebral Circulation *Exp Biol Meeting, Chicago, IL The FASEB Journal*, 31 (1 Supplement), 883-25.
18. Carter, K.J., **Kellawan, J.M.**, Peltonen, G.L., Ward, A.T., Carrel, A.L., Wieben, O., Bendlin, B.B., & Schrage, W.G. Regional Patterns of Pulsatility Index and Wall Shear Stress Across Cerebral Circulation of Adolescents with Insulin Resistance *Exp Biol Meeting, Chicago, IL The FASEB Journal*, 31 (1 Supplement), 836-10.
 19. Ward, A. T., **Kellawan, J. M.**, Peltonen, G. L., Carter, K. J., Rehm, J. L., Oh, J. M., & Schrage, W. G. (2017). Altered Basal Cerebral Perfusion in Adolescents with Insulin Resistance. *Exp Biol Meeting, Chicago, IL, The FASEB Journal*, 31 (1 Supplement), 836-11.
 20. **Kellawan, J.M.**, Harrell, J.W., Roldan-Alzate, A., Wieben, O., Schrage, W.G. (2016) Hypercapnic responses uncover regional cerebrovascular dysfunction and a varying role of cyclooxygenase in young adults with metabolic syndrome *Exp Biol Meeting, San Diego, CA FASEB Journal*
 21. **Kellawan, J.M.**, Harrell, J.W., Roldan-Alzate, A., Wieben, O., Schrage, W.G. (2015) Quantitative 4D Flow MRI during Hypoxia Identifies Non-uniform Cerebrovascular Dysfunction in Young Adults with Metabolic Syndrome. *Exp Biol Meeting, Boston, MA, FASEB Journal* 29:994.2
 22. Peltonen, G.L., Johansson, R.E., Limberg, J.K., Harrell, J.W., Ernst, B.S., **Kellawan, J.M.**, Crain, M.K., Eldridge, M.W., Sebranek, J.J., Walker, B.J., Schrage, W.G. (2015) Greater β -Adrenergic Vasodilation in Healthy Men Versus Women: Cyclooxygenase Suppresses Nitric Oxide. *Exp Biol Meeting, Boston, MA FASEB Journal* 29:1053.4
 23. **Kellawan, J.M.**, Johansson, R.E., Harrell, J.W., Trierweiler J., Sebranek, J.J., Walker, B.W., Eldridge, M.W., Schrage, W.G. (2014) Skeletal muscle vasodilation during exercise in human obesity: contributions of nitric oxide and prostaglandins *CSEP Meeting, St. John's NL Applied Physiology, Nutrition and Metabolism*, 39 S24
 24. **Kellawan, J.M.**, Harrell J.W., Roldan-Alzate A., Rousseau, C., Wieben, O., Schrage, W.G. (2014) 4D MRI to quantify cerebral blood flow during environmental challenges. *International Society for Magnetic Resonance in Medicine Joint Annual Meeting, Milan, Italy abstract number: 1814*
 25. **Kellawan, J.M.**, Johansson, R.E., Harrell, J.W., Treierweiler J., Crain, M.K., Sebranek, J.J., Walker, B.J., Eldridge, M.W., Schrage, W.G. (2014) Sex differences observed in forearm exercise vasodilation are not mediated through differences in nitric oxide or prostaglandin signaling. *Exp Biol Meeting, San Diego, CA FASEB Journal* 28:1106.3
 26. **Kellawan, J.M.**, Bentley, R.F., Walsh J.J., Moynes, J.S., Tschakovsky, M.E. (2013) Sensitivity of forearm critical power to acute manipulation of perfusion pressure *Exp Biol Meeting, Boston, MA FASEB Journal* 27:1125.4
 27. Walsh J.J., Scribbans T., Bentley, R.F., **Kellawan, J.M.**, Gurd, B., Tschakovsky, M.E. (2013). Neurotrophic growth factor response to lower body resistance training in older adults. *Exp Biol Meeting, Boston, MA FASEB Journal* 27:934.4
 28. **Kellawan, J.M.**, Bravo, M.F., Moynes, J.S., Walsh, J.J., Bentley, R.F., Tschakovsky, M.E. (2012). Inter-Individual differences in rapid vasodilation in older males with and without type 2 diabetes. *Exp Biol Meeting San Diego, CA FASEB Journal* 26: 860.14
 29. **Kellawan, J.M.**, Bentley, R.F., Walsh, J.J., Tschakovsky, M.E. (2011). Characterization of the cerebro-vascular response to an initial orthostatic hypotension stimulus in young adults. *CSEP meeting, Quebec City, QC Applied Physiology, Nutrition, and Metabolism*. 36:(S2), S330
 30. Walsh, J.J., Bentley, R.F., **Kellawan, J.M.**, Tschakovsky, M.E. (2011). Lower limb muscle tensing attenuates reduction in cerebral perfusion upon active standing from squat. *CSEP meeting, Quebec City, QC Applied Physiology, Nutrition, and Metabolism*. 36:(S2), S356.
 31. Bentley, R.F., Walsh, J.J., **Kellawan, J.M.**, Tschakovsky, M.E. (2011). Determining the effectiveness of a 5 second bend over manoeuvre in maintaining cerebral blood flow in initial orthostatic hypotension stimulus. *CSEP meeting, Quebec City, QC Applied Physiology, Nutrition, and Metabolism*. 36:(S2), S303
 32. Bentley, R.F., Hong, T., Poitras, V., **Kellawan, J.M.**, Pak, M., Jazuli, F., Chung, B., Tschakovsky, M.E. (2011). Challenging O₂ delivery: metabolism coupling in small muscle mass exercise. *Exp Biol Meeting*,

Washington, DC FASEB Journal. 25: 1023.4

33. **Kellawan, J.M.**, Bravo, M.F., Moynes, J.S., Bentley, R., Shantz, R., Tschakovsky, M.E. (2011) Inter-individual oxygen delivery differences strongly influence estimated critical power in an all out exercise test *Exp Biol Meeting, Washington, DC FASEB Journal* 25:1023.3
34. Bravo, M.F., **Kellawan, J.M.**, Moynes, Bentley, J.S., Bentley, R., Shantz, R., Tschakovsky, M.E. (2011) Inter-individual differences in coupling oxygen delivery to demand during a progressive exercise test *Exp Biol Meeting, Washington, DC FASEB Journal* 25:1023.5
35. Walsh, J.J., Moynes, J.S., **Kellawan, J.M.**, Bentley, R., Bravo, M.F., Shantz, R., Tschakovsky, M.E. (2011) Inter-individual differences in coupling oxygen delivery to exercising muscle metabolic demand. *Exp Biol Meeting, Washington, DC FASEB Journal* 25:1023.2
36. **Kellawan, J.M.**, Moylan, D., Nelson, C., Bentley, R., Tschakovsky, M.E. (2010) Determining Critical Power in Forearm Handgrip Exercise: Repeatability of a Single "All-Out" Exercise Test. *ACSM Meeting, Baltimore, MD Medicine & Science in Sport & Exercise* 42(5), S404
37. **Kellawan, J.M.**, Webb, K., O'Donnell, D.E., Tschakovsky, M.E. (2009) Evidence for Impaired Exercising Forearm and Leg Muscle Blood Flow at Higher Exercise Intensity in COPD. *ACSM Meeting, Seattle, WA Medicine & Science in Sport & Exercise* 41(5), 4
38. **Kellawan, J.M.**, Wolski, L.A., (2007). Infrared Ear Thermometers Do Not Accurately Measure Core Temperature in Fire Fighters During Recovery. *ACSM Meeting, New Orleans, LA Medicine & Science in Sport & Exercise* 39(5), S414
39. **Kellawan, J.M.**, Nelson M.D., Wolski, L.A., (2006). The Effects of Utilizing the Valsalva Acceleration Technique on Speed and Power Performance. *ACSM Meeting, Denver, CO Medicine & Science in Sport & Exercise* 38(5), S297
40. Nelson, M.D., **Kellawan, J.M.**, Wolski, L.A., (2006). The Valsalva Maneuver Revisited: A Natural Occurring Phenomenon Leading to Strength Acquisition. *ACSM Meeting, Denver, CO Medicine & Science in Sport & Exercise* 38(5), S284
41. Wilson, B.A., Tkaczyk, T.M., **Kellawan, J.M.** (2005) Effects of Oxygen Breathing on Wingate Test Parameters. *ACSM Meeting, Nashville, TN Medicine & Science in Sport & Exercise* 37(5), S102

Invited Presentations

1. Seminar Speaker, *Cerebrovascular Control During Exercise*. **Biochemistry and Cell Biology Seminar Series**, Departments of Biochemistry & Molecular Biology, and Cell Biology. University of Oklahoma Health Sciences Center, Oklahoma City, OK, USA, July 22, 2020
2. Seminar Speaker, *Cerebrovascular responses to graded exercise in young men and women*. **Neuromunch Seminar Series**, Department of Biology, University of Oklahoma, Norman, OK, USA, March 27, 2020
3. Chair for Feature Topic, *Battle of the reflexes: chemo-vs. baroreflexes during physiological stressors, aging, and cardiovascular disease*. Neural Control and Autonomic Regulation Section, APS Annual Meeting at **Experimental Biology 2018**, San Diego, CA, USA, April 21-25, 2018
4. Presenter and Panel member, *Panel Discussion with American Physiological Society (APS) Professionals*, **2018 National Conference on Undergraduate Research (NCUR)**, University of Central Oklahoma, Edmond, OK, USA, April 4-6, 2018
5. Free Communication, *Individual and Combined Effects of Phosphodiesterase-5 and Nitric Oxide Synthase Inhibition to Vasodilation During Moderate Exercise*. **Integrative Physiology Laboratory, Department of Kinesiology and Nutrition, University of Illinois at Chicago**. Chicago, IL, April 22, 2017
6. Free Communication, *Insulin resistance is associated with lower arterial blood flow and cortical hypoperfusion in cognitively healthy middle-aged adults*. **The Early Career Physiologist Symposium, Physiology 2016, Joint meeting of the American Physiological**

Society and The Physiological Society. Dublin, IE, July 29-31, 2016

7. Free Communication, *Skeletal muscle vasodilation during exercise in human obesity: Contributions of nitric oxide and prostaglandins*. **Canadian Society for Exercise Physiology 2014 Annual General Meeting:** "Science on the Edge of the Continent". St. John's, NL, October 22-25, 2014.
8. Free Communication, *Inter-individual oxygen delivery differences strongly influence estimated critical power in an all out exercise test*. Featured Topic entitled Coupling Blood flow to Metabolic Demand: New Insights and Perspectives. **Experimental Biology 2011**. Washington, DC, April 9-13, 2011
9. Free Communication, *Determining Critical Power in Forearm Handgrip Exercise: Repeatability of a Single "All-Out" Exercise Test*. **Ontario Exercise Physiology Conference 2010**. Barrie, ON, January 22-24, 2010
10. Free Communication, *The effects of caffeine ingestion on firefighter work tolerance*. **Canadian Society for Exercise Physiology 2008 Annual General Meeting:** "Exercise in Health and Disease". Banff, AB, October 15-18, 2008.
11. Invited Speaker, *Health and Safety Issues of Caffeine Ingestion for Firefighters*, University of Victoria, **School of Exercise Science, Physical and Health Education's 2nd annual Health Research Symposium**. April 2008
12. Invited Speaker, *Physiological Research and Life as a Graduate student at the University of Victoria*, University of Victoria, School of Exercise Science, Physical and Health Education. September 2007.
13. Invited Speaker, *The Effects of Exercise Training on Insulin Sensitivity*, University of Victoria, **Obesity Mini-Symposium**, School of Exercise Science, Physical and Health Education. October 2005

Pedagogical Training

2010-2011

- Completed a course on teaching and learning in higher education; centered on scholarship of teaching and learning and developing strategies to enhance Post-Secondary educational experience
- Received additional certifications in university teaching and learning in: Foundations of Teaching and Learning, Practical Experience, and Scholarship from the Centre for Teaching and Learning at Queen's University

Teaching interests

I am interested in teaching general human physiology both at the systemic and cellular level especially during exercise. I excel in teaching courses aimed at investigating the physiological factors affecting health, exercise, and occupational performance and tolerance. I am also interested in teaching courses focused on exercise prescription in healthy and diseased populations.

Teaching Experience

Student Awards

Brandon Stone – Robberson Research Award, University of Oklahoma	2019
John Ashely – Physiological Society Travel Award	2019
Joe Shelley – Physiological Society Travel Award	2019
	2019

Undergraduate/Graduate

Postdoctoral Supervisor – Jongjoo Sun, KMD, Department of Health and Exercise Science, University of Oklahoma	2018-current
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Predoctoral Supervisor – Brandon Stone, MS, Department of Health and Exercise Science, University of Oklahoma	2017-2019
Predoctoral Supervisor – John Ashley, MS, Department of Health and Exercise Science, University of Oklahoma	2017-current
Predoctoral Supervisor – Jiwon Song, MS, Department of Health and Exercise Science, University of Oklahoma	2019-current
Master's Supervisor – Joe Shelley, Department of Health and Exercise Science, University of Oklahoma	2017-2020
Master's Supervisor – Jacob Trent, Department of Health and Exercise Science, University of Oklahoma	2019-2020
Master's Supervisor – Jacob Matney, Department of Health and Exercise Science, University of Oklahoma	2020-current
Master's Supervisor – Alexander Buelow, Department of Health and Exercise Science, University of Oklahoma	2020-current
McNair Scholar Supervisor – Luis Ambrosio, Department of Health and Exercise Science, University of Oklahoma	2018-2019
McNair Scholar Supervisor – Otto Orellana, Department of Health and Exercise Science, University of Oklahoma	2018-2019
Course Instructor – HES 5863 Physiology of Aging, Department of Health and Exercise Science, University of Oklahoma	2018-Current
Course Instructor – HES 4953 Senior Capstone, Department of Health and Exercise Science, University of Oklahoma	2020-Current
Course Instructor – HES 6823 Cardiorespiratory Exercise Physiology, Department of Health and Exercise Science, University of Oklahoma	2017-current
Course Instructor – HES 3853 Exercise Testing and Prescription, Department of Health and Exercise Science, University of Oklahoma	2017-current
Guest Lecturer – Kinesiology 615, Laboratory Techniques in Exercise Physiology Department of Kinesiology, University of Wisconsin – Madison	2013-2017
Supervisor – American Physiological Society Undergraduate Summer Research Program, Mentored Research, Department of Kinesiology, University of Wisconsin – Madison	2015-2016
Supervisor – Shapiro Summer Research Program, Mentored Research Department of Kinesiology, University of Wisconsin – Madison	2015

Supervisor - Biology 152, Mentored Research, Department of Kinesiology, University of Wisconsin – Madison	2013-2016
Course instructor - KNPE 429, Cardiovascular and respiratory control during exercise, School of Kinesiology and Health Studies, Queen's University	2011
Laboratory instructor – KNPE 429, Cardiovascular and respiratory control during exercise	2011
Assistant Supervisor - KNPE 595, Honors Thesis in Kinesiology (2 students), School of Kinesiology and Health Studies, Queen's University	2009-2010
Teaching Assistant - KNPE 125, Introduction to the physiology of human movement, School of Kinesiology and Health Studies, Queen's University	2008-2010
Tutorial Instructor - KNPE 225, Integrative physiology of human movement, School of Kinesiology and Health Studies, Queen's University	2010
Teaching Assistant - HLTH 102, Physical Determinants of Health, School of Kinesiology and Health Studies, Queen's University	2010
Teaching Assistant - KNPE 227, Exercise Physiology, School of Kinesiology and Health Studies, Queen's University	2009
Teaching Assistant - PHED 459, Clinical Exercise Physiology School of Kinesiology and Health Studies, Queen's University	2009
Laboratory Instructor - PE 241B, Systemic physiology, University of Victoria, School of Exercise Science Physical and Health Education	2005-2008
Laboratory Instructor - PE 241A, Cellular Physiology, University of Victoria, School of Exercise Science, Physical and Health Education	2006-2008
Laboratory Instructor - PE 360, Exercise Prescription, University of Victoria, School of Exercise Science, Physical and Health Education	2005
<u>High School</u>	
Course coordinator and instructor - “Bodies in Motion”, Enrichment Mini Course (EMC) Enrichment studies unit, Queen’s University	2010-2011
<u>Middle School</u>	
Course coordinator and Instructor - “Your body is a high-performance machine” and “Exercise is medicine”, Summer Enrichment Experience at Queen’s (SEEQ) Enrichment studies unit, Queen’s University	2011

Scholarly and Professional Service

Journal Reviewer:

- Journal of Applied Physiology
- American Journal of Physiology–Heart and Circulatory Physiology
- American Journal of Physiology–Regulatory, Integrative and Comparative Physiology
- Physiological Reports

- Frontiers in Physiology
- Microvascular Research
- Medicine and Science in Sport and Exercise
- Journal of Alternative and Complementary Medicine

Other professional service:

- American Physiological Society Minority Travel Fellowship Award – Meeting Mentor Experimental Biology, San Diego, CA, 2018
- National Institutes of Health – Accepted into Early Career Review (ECR) program at the Center for Scientific Review (CSR)
- Grant Reviewer – Central States American College of Sports Medicine

University of Oklahoma Service

Pre-dental and Pre-medical committee - member

College of Arts and Science, University of Oklahoma Service

Internship Liaison - Department of Health and Exercise Science

Department of Health and Exercise Science, University of Oklahoma Service

Oversight Committee – chair

Planning/Speaker Committee – chair, 2019-2020

Graduate Committee – member

Undergraduate Committee – former member 2017-2019

Exercise Physiology Hiring Committee 2017, 2019- member

HES Graduate Student Recruitment Event – Chair, Organizer → *Wrote successful application for the \$2,500 from the Graduate College.*

Scholarly and Professional Memberships

American Physiological Society – Regular member

Physiological Society – Member

American Heart Association/American Stroke Association – Early Career member

American College of Sports Medicine - Member