

Tracy Baynard, Ph.D., FACSM, FTOS, FAHA
Curriculum Vitae

Address: University of Illinois at Chicago
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1. EDUCATION:

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|-------|---|-----------|
| Ph.D. | Syracuse University— Exercise Physiology/Science Education
Advisor—Jill A. Kanaley | June 2007 |
| M.S. | The George Washington University— Exercise Science
Specialization Track: Clinical Exercise Physiology | Aug 2001 |
| B.A. | Western Maryland College (now—McDaniel College)
Major: Physical Education
Minors: Exercise Science, Athletic Training | May 1993 |

2. PROFESSIONAL EXPERIENCE:

1. University of Illinois at Chicago (8/11-present)

1. Associate Professor, Dept. of Kinesiology & Nutrition, College of Applied Health Sciences—July 2017-present.
2. Associate Professor, Dept. of Medicine, College of Medicine—Courtesy Appointment—July 2017-present
3. Member, Center for Cardiovascular Research, UIC, 2019-present
4. Director, Integrative Physiology Laboratory—June 2017-present
5. Assistant Professor, Dept. of Medicine, College of Medicine—Courtesy Appointment—April 2016-June 2017)
6. Member, University of Illinois Cancer Center—(Feb 2012-present)
7. Honors College—Faculty Fellow (Sept 2011-present)
8. Assistant Professor, Dept. of Kinesiology & Nutrition, College of Applied Health Sciences—(Aug/2011-Aug/2017)

2. University of Illinois at Urbana-Champaign (8/08-present)

1. Courtesy Appointment, Associate Professor, Dept. of Kinesiology & Community Health (7/17-present)
2. Courtesy Appointment, Assistant Professor, Dept. of Kinesiology & Community Health (7/11-7/17)

3. Assistant Professor, Dept. of Kinesiology & Community Health (8/08-8/11)
4. Division of Nutritional Sciences Faculty Member (6/09-8/11)
5. Director, Lifetime Fitness Program (8/10-8/11)

B. University of Illinois at Urbana-Champaign (7/07-8/08)

1. Post-doctorate Research Associate; Mentor: Jeffrey A. Woods, Ph.D.

C. Syracuse University (8/2001-08/06)

1. *Project Coordinator/Research Assistant*: (NY State Diabetes Bridge Grant, NIH 1R21DK063179-01A), 2003-06.
2. *Research Assistant*: (National Institute of Disability and Rehabilitation Research Grant) 2004-06.
3. *Research Assistant* (American Heart Association Grant-In-Aid), 2001-04
4. *Graduate Assistant Exercise Science Department*: 2001-03

D. The George Washington University Medical Center (1999-2001)

1. *Graduate Assistant Exercise Science Program*, 8/2000-8/2001
2. *Research Project Assistant*, 8/1999-8/2001
3. *Research Intern*, Summer 2000
4. *Graduate Assistant-Athletic Department*, 11/99-5/2000

3. SCHOLARLY ACTIVITY

A. Refereed Manuscripts:

1. WK Lefferts, AJ Rosenberg, EC Schroeder, G Grigoriadis, BM Sandroff, RW Motl, **T Baynard**. Effects of acute aerobic exercise on cerebrovascular hemodynamics and cognitive function in individuals with multiple sclerosis. In Press: *International Journal of MS Care*, 2020.
2. Liem RI, **T Baynard**, R Garofano, N Green, J Hankins, LL Hsu, K Ness, M Rodeghier, S Radom-Aizik. Sickle cell pro-inflammatory response to interval testing study (SPRINTS)—study design and methodological strategies. In Press: *Clinical Contemporary Trials*, 2020.
3. K Bunsawat, EC Lefferts, G Grigoriadis, SO Wee, M Kilacek, PJ Fadel, PS Clifford, B Fernhall, **T Baynard**. Central and peripheral postexercise blood pressure and vascular responses in young adults with obesity. In Press: *Medicine Sciences Sports & Exercise*, 2020.
4. Sherman SR, EC Schroeder, **T Baynard**, B Fernhall, TIM Hilgenkamp. Attenuated hemodynamic response to isometric handgrip exercise among individuals with intellectual disability. In Press: *Medicine Sciences Sports & Exercise*, 2020.
5. Limberg JK, JA Smith, RN Soares, JL Harper, K Houghton, DW Jacob, MT Mozer, ZI Grunewald, BD Johnson, TB Curry, **T Baynard**, C Manrique-Acevedo, J Padilla. Sympathetically-mediated increases in cardiac output, rather than restraint of peripheral vasodilation, contribute to the maintenance of blood pressure during hyperinsulinemia. *Am J Physiol-Regulatory, Integrative & Comparative*, 319: H162-H170, 2020.
6. GJ Griffith, B Saed, **T Baynard**. A comparison between treadmill and cycle ergometry maximal exercise testing responses in multiple sclerosis. In Press: *J Clinical Exercise Physiol*, 2020.

7. AJ Rosenberg, EC Schroeder, G Grigoriadis, SO Wee, K Bunsawat, KS Heffernan, B Fernhall, **T Baynard**. Aging reduces cerebral hemodynamic responsiveness following an acute hypertensive stimulus. *Journal of Applied Physiology*. 128:1186-1195, 2020.
8. BA Hibner, EC Schroeder, TIM Hilgenkamp, RW Motl, R Bollaert, GJ Griffith, **T Baynard**, B Fernhall. Physical activity and aerobic capacity are associated with walking ability in multiple sclerosis. *Multiple Sclerosis & Related Disorders*. 40: 101941, 2020.
9. S Reutrakul, JC Park, F Chau, M Priyadarshini, EC Hanlon, SJ Crowley, KK Danielson, B Gerber, **T Baynard**, JJ Yeh, J McAnany. Relationship between intrinsically photosensitive ganglion cell function and circadian regulation in diabetic retinopathy. *Scientific Reports*. 10: 1560, 2020. doi: 10.1038/s41598-020-58205-1.
10. G Grigoriadis, AJ Rosenberg, WK Lefferts, SO Wee, EC Schroeder, B Fernhall, **T Baynard**. Similar effects of acute resistance exercise on carotid stiffness in men and women. *International J Sports Medicine*. 41:82-88, 2020.
11. TIM Hilgenkamp, EC Schroeder, SO Wee, GG Grigoriadis, AJ Rosenberg, **T Baynard**, B Fernhall. Altered central hemodynamics in individuals with Down syndrome. *Artery Research*. 25:107-112, 2019.
12. EC Schroeder, TIM Hilgenkamp, WK Lefferts, NS Robinson, **T Baynard**, B Fernhall. No effect of fitness on brachial or forearm vascular function across the arterial tree during acute inflammation in young adults. *American J Physiol-Reg, Int, Comp*, 317:R746-753, 2019.
13. P Iyer, AJ Rosenberg, **T Baynard**, S Madhavan. Influence of neurovascular mechanisms on the response to tDCS: an exploratory study. *Experimental Brain Research*. 237:2829-40, 2019.
14. K Bunsawat, G Grigoriadis, PJ Fadel, PS Clifford, B Fernhall, **T Baynard**. Preserved ability to blunt sympathetically-mediated vasoconstriction in exercising skeletal muscle of young obese humans. *Physiological Reports*, 7(8):e14068. doi: 10.14814/phy2.14068, 2019.
15. TIM Hilgenkamp, SO Wee, EC Schroeder, **T Baynard**, B Fernhall. Peripheral blood flow regulation in response to sympathetic stimulation in individuals with Down syndrome. *Artery Research*, 24: 16-21, 2018.
16. **T Baynard**, TIM Hilgenkamp, EC Schroeder, RW Motl, B Fernhall. Measures of adiposity differentially correlate with measures of C-reactive protein in multiple sclerosis. *Multiple Sclerosis & Related Disorders*, 25:1-4, 2018.
17. AE Towers, JM York, **T Baynard**, SJ Gainey, GG Freund. Mouse testing methods in psychoneuroimmunology 2.0: an overview of how to measure behavioral responses. *Methods in Mol Biol*, 1781:221-258, 2018.
18. EC Schroeder, AD Lane-Cordova, SM Ranadive, **T Baynard**, B Fernhall. Influence of fitness and age on the endothelial response to acute inflammation. *Experimental Physiology*, 103:024-931, 2018.
19. AJ Rosenberg, AD Lane-Cordova, SO Wee, DW White, TIM Hilgenkamp, B Fernhall, **T Baynard**. Healthy aging and carotid performance: strain measures may be superior to beta-stiffness index. *Hypertension Research*. 41:748-755, 2018.
20. TIM Hilgenkamp, **T Baynard**. Do individuals with intellectual disability have a lower peak heart rate and maximal oxygen uptake? *Journal of Applied Research in Intellectual Disabilities*. 31:785-791, 2018.
21. BM Sandroff, RE Bollaert, LA Pilutti, ML Peterson, **T Baynard**, B Fernhall, E McAuley, RW Motl. Multimodal exercise training in multiple sclerosis: a randomized controlled trial in persons in the second stage of the disease. *Contemporary Clinical Trials*. 61:39-47, 2017.

22. B Shafer, S Ranadive, **T Baynard**, R Motl, B Fernhall. The implications of poor sleep quality on arterial health in persons with multiple sclerosis. *Artery Research*. 19:49-55, 2017.
23. EC Schroeder, AJ Rosenberg, TIM Hilgenkamp, DW White, **T Baynard**, B Fernhall. Effect of upper body position on arterial stiffness: Influence of hydrostatic pressure and autonomic function. *J Hypertension*, 35:2454-2461, 2017.
24. RM Kappus, K Bunsawat, MD Brown, S Phillips, JM Haus, **T Baynard**, B Fernhall. Effect of oxidative stress on racial differences in vascular function at rest and during hand grip exercise. *J Hypertension*. 35:2006-2015, 2017.
25. K Bunsawat, S Ranadive, AD Lane-Cordova, H Yan, RM Kappus, B Fernhall, **T Baynard**. The effect of acute maximal exercise on post-exercise hemodynamics and central arterial stiffness in obese and normal-weight individuals. *Physiological Reports*. Apr;5(7). pii: e13226. doi: 10.14814/phy2.13226, 2017.
26. H Yan, SM Ranadive, AD Lane-Cordova, RM Kappus, MA Behun, MD Cook, JA Woods, KR Wilund, **T Baynard**, JR Halliwill, B Fernhall. The effect of acute aerobic exercise and histamine receptor blockade on arterial stiffness in African-Americans and Caucasians. *J Applied Physiology*. 122:386-95, 2017.
27. Motl RW, Sandroff BM, Pilutti LA, Klaren RE, **Baynard T**, Fernhall B. Physical activity, sedentary behavior, and aerobic capacity in persons with multiple sclerosis. *Journal of the Neurological Sciences*. 372:342-346, 2017.
28. AD Lane-Cordova, SM Ranadive, RM Kappus, MD Cook, SA Phillips, JA Woods, KR Wilund, **T Baynard**, B Fernhall. Aging, not age-associated inflammation, determines blood pressure and endothelial responses to acute inflammation. *Journal of Hypertension*. 34:2402-2409, 2016.
29. **T. Baynard**, R Arena, J Myers, LA Kaminsky. The role of body habitus in predicting cardiorespiratory fitness: The FRIEND Registry. *International J Sports Medicine*. 37:863-9, 2016.
30. K. Bunsawat, **T. Baynard**. Cardiac autonomic modulation and blood pressure responses to isometric handgrip and submaximal cycling exercise in individuals with Down syndrome. *Clinical Autonomic Research*, 26:253-260, 2016.
31. H Yan, MA Behun, MD Cook, SM Ranadive, AD Lane, RM Kappus, JA Woods, KR Wilund, **T Baynard**, JR Halliwill, B Fernhall. Differential post-exercise blood pressure responses between blacks and caucasians. *PLOS One*, 11(4):e0153445. doi: 10.1371/2016/journal.pone.0153445, 2016
32. AD Lane-Cordova, SA Phillips, **T Baynard**, JA Woods, RW Motl, B Fernhall. Effects of aging and physical activity on blood pressure and endothelial function during acute inflammation. *Experimental Physiology*. 101:962-71, 2016.
33. P Sun, H Yan, S Ranadive, A Lane-Cordova, RM Kappus, K Bunsawat, **T Baynard**, M Hu, L Shichang, B Fernhall. Autonomic recovery is delayed in Chinese compared with Caucasian following treadmill exercise. *PLOS One*. 11(1):e147104 (doi: 10.1371/journal.pone.0147104), 2016.
34. Bunsawat K, DW White, RM Kappus, **T Baynard**. Caffeine delays autonomic recovery following acute exercise. *Eur J Prev Cardiol*. 22:1473-9, 2015.
35. G. Griffith, RE Klaren, RW Motl, **T Baynard**, B Fernhall. Experimental protocol of a randomized controlled trial investigating exercise, subclinical atherosclerosis, and walking mobility in persons with multiple sclerosis. *Contemporary Clinical Trials*. 41:280-6, 2015.
36. Bunsawat, K, S Goulopoulou, SR Collier, A Figueroa, KH Pitetti, B Fernhall, **T. Baynard**. Normal HR with tilt, yet autonomic dysfunction in persons with Down syndrome. *Medicine Science Sports & Exercise*. 47:250-56, 2015.

37. Y. Pincu, M. Linden, K Zou, **T Baynard**, M Boppart. The effects of high fat diet and moderate exercise on TFGβ1 and collagen deposition in mouse skeletal muscle. *Cytokine*. 73:23-9, 2015.
38. S. Wee, KH. Pitetti, M. Guerra, **T. Baynard**. Impact of obesity and Down syndrome on maximal heart rate and aerobic capacity in youth and adults with intellectual disabilities. *Research in Developmental Disabilities*. 36:198-206, 2014.
39. Sun P, Yan H, Ranadive S, Lane A, Kappus R, Bunsawat K, **Baynard T**, Li S, Fernhall B. Blood pressure changes following aerobic exercise in Caucasian and Chinese decent individuals. *International Journal of Sports Medicine*, 36:189-96, 2015.
40. GR Oviedo, M Guerra-Balic, **T. Baynard**, C Javierre. Effects of aerobic, resistance and balance training in adults with intellectual disabilities. *Research in Developmental Disabilities*. 35:2624-34, 2014.
41. Lane AD, RM Kappus, K Bunsawat, SM Ranadive, H Yan, S Phillips, **T. Baynard**, JA Woods, R Motl, B Fernhall. Age-related ventricular-vascular coupling during acute inflammation in humans: effect of physical activity. *European J Prev Cardiol*. 22:904-11, 2015.
42. M. Linden, Y. Pincu, SA Martin, JA Woods, **T. Baynard**. The progression of white adipose tissue inflammatory gene expression during concomitant high-fat diet feeding and exercise. *Physiological Reports*. 2:e12071, (July) 2014. Included in the Special Issue (Dec 2014): New Insights in Energy Homeostasis, Fat and Obesity
43. **T. Baynard**, S Goulopoulou, RF Sosnoff, B Fernhall, JA Kanaley. Cardiovascular modulation and efficacy of aerobic exercise training in obese individuals. *Medicine Science Sports & Exercise*. 46:369-75, 2014.
44. CA Fahs, LM Rossow, H Yan, SM Ranadive, S Agiovlasis, KR Wilund, **T Baynard**, B Fernhall. Resting and post-exercise arterial-ventricular coupling in endurance trained men and women. *Journal of Human Hypertension*. 27:552-6, 2013.
45. **T. Baynard**, V.J. Vieira, RJ Valentine, JA Woods. Exercise training reduces inflammatory gene expression in white adipose tissue of young mice. *Mediators of Inflammation*. 2012:article #767953, 2012.
46. York, J.M., Blevins, N.A., **Baynard, T.**, Freund, G.G. Mouse Testing Methods in Psychoneuroimmunology: An Overview of How to Measure Sickness, Depressive/Anxietal, Cognitive, and Physical Activity Behaviors. *Methods in Mol Biol*. 934:243-76, 2012.
47. JA Kanaley, S Goulopoulou, RF Sosnoff, **T. Baynard**, R Carhart, Jr., RS Weinstock, B Fernhall. Exercise training improves hemodynamic recovery to isometric exercise in obese men with type 2 diabetes but not in obese women. *Metabolism*. 61:1739-46, 2012.
48. AD Lane, S Ranadive, L Rossow, H Yan, **T. Baynard**, K. Wilund, B Fernhall. Aortic reservoir function is attenuated following steady state or interval exercise. *Clinical Physiology & Functional Imaging*. 32:353-60, 2012.
49. Ranadive S., H Yan, M Weikert, AD Lane, MA Linden, **T Baynard**, RW Motl, B Fernhall. Vascular dysfunction and physical activity in multiple sclerosis. *Medicine Science Sports Medicine*. 44:238-42, 2012.
50. Agiovlasis S, **T. Baynard**, KH Pitetti, B Fernhall. Heart rate complexity in response to upright tilt in persons with Down syndrome. *Research in Developmental Disabilities*. 32:2102-7, 2011.
51. Cowley PM, Ploutz-Snyder LL, **Baynard T**, Heffernan KS, Jae SY, Lee M, Pitetti KH, Reiman MP, Fernhall B. The effect of progressive resistance training on leg strength, aerobic capacity, and functional tasks of daily living in persons with Down syndrome. *Disability and Rehabilitation*. 33:2229-36 , 2011.

52. Tomas, T., Santa-Clara, H, Monteiro, E, **Baynard, T**, Freire, A, Carnero, E., Bruno PM, Barroso, E, Sardinha LB, and Fernhall, B. Body Composition, Muscle Strength and Physical Disability Risk in Liver Transplanted Familial Amyloidotic Polyneuropathy Patients. *Clinical Transplantation*. 25:E406-14, 2011.
53. Agiovlasis S, SR Collier, **T Baynard**, GH Echols, S Gouloupoulou, A Figueroa, MW Beets, KH Pitetti, B Fernhall. Autonomic response to upright tilt in people with and without Down syndrome. *Research in Developmental Disabilities*. 31:857-63, 2010.
54. Rossow L, H Yan, CA Fahs, SM Ranadive, S Agiovlasis, KR Wilund, **T Baynard**, B Fernhall. Post-exercise hypotension in an endurance-trained population of men and women following high-intensity interval and steady-state cycling. *American Journal of Hypertension*. 23:358-67, 2010.
55. Gouloupoulou S, **T Baynard**, RM Franklin, B Fernhall, R Carhart Jr, R Weinstock, JA Kanaley. Exercise training improves cardiovascular autonomic modulation in response to glucose ingestion in obese adults with and without type 2 diabetes mellitus. *Metabolism*. 59:901-10, 2010.
56. Cowley PM, LL Ploutz-Snyder, **T Baynard**, K Heffernan, SY Jae, S Hsu, M Lee, KH Pitetti, MP Reiman, B Fernhall. Physical fitness predicts functional tasks in individuals with Down syndrome. *Medicine Science Sports & Exercise*. 42:388-93, 2010
57. Weil, B.R., S. Byrne, **T. Baynard**, J.A. Kanaley. Vascular function is impaired early after the initiation of chronic cigarette smoking. *Artery Research*. 3:111-14, 2009.
58. Kanaley JA, S Gouloupoulou, RM Franklin, **T Baynard**, ME Holmstrup, R Carhart, Jr, RS Weinstock, B Fernhall. Plasticity of heart rate signaling and complexity with exercise training in obese individuals with and without type 2 diabetes. *Int J Obesity*. 33:1198-1206, 2009.
59. **T. Baynard**, R. Carhart Jr., R.S. Weinstock, L.L. Ploutz-Snyder, J.A. Kanaley. Acute hyperglycemia attenuates arterial function, with no change following short-term exercise training in obese persons, with and without the metabolic syndrome. *European Journal of Applied Physiology*. 107:299-308, 2009.
60. Vieira VJ, RJ Valentine, K Wilund, N Antao, **T Baynard**, JA Woods. Effects of exercise and low-fat diet on adipose tissue inflammation and metabolic complications in obese mice. *American Journal of Physiology; Endocrinology & Metabolism*. 296:E1164-1171, 2009.
61. Vieira VJ, L Hu, RJ Valentine, E McAuley, EM Evans, **T Baynard**, JA Woods. Reductions in trunk fat and perceived stress predict cardiovascular exercise training-related reductions in C-Reactive Protein in female, but not male, previously sedentary older adults. *Brain, Behavior & Immunity*. 23:485-491, 2009.
62. Heffernan, KS, JJ Sosnoff, E Ofori, SY Jae, **T Baynard**, SR Collier, S Gouloupoulou, A Figueroa, JA Woods, KH Pitetti, B Fernhall. Complexity of force output during static exercise in individuals with Down syndrome. *Journal of Applied Physiology*. 106:1227-33, 2009.
63. Valentine, RJ, EM Evans, VJ Vieira, **T Baynard**, L Hu, E McAuley, JA Woods. Sex differences in the relationship between obesity, C-Reactive protein, physical activity, sleep quality and fatigue in older adults. *Brain, Behavior, & Immunity*. 23:643-8, 2009.
64. Fernhall, B., **T. Baynard**, S.R. Collier, A. Figueroa, S. Gouloupoulou, G.H. Kamimori, K.H. Pitetti. Reduced catecholamine response to maximal exercise in persons with Down syndrome. *Am J Cardiology*. 103:724-726, 2009.
65. **T. Baynard**, K. Pitetti, M. Guerra, B. Fernhall. Age-related changes in aerobic capacity in persons with mental retardation: A 20-year review. *Medicine Science Sports & Exercise*. 40:1984-89, 2008.

66. Franklin, R.M., **T Baynard**, R.S. Weinstock, S. Gouloupoulou, R. Carhart, Jr., R. Ploutz-Snyder, A. Figueroa, B. Fernhall, JA Kanaley. Autonomic responses to physiological stressor in women with type 2 diabetes. *Clinical Autonomic Research*. 18:66-73, 2008.
67. **T. Baynard**, R. Carhart Jr., L.L. Ploutz-Snyder, R.S. Weinstock, J.A. Kanaley. Short-term training effects on diastolic function in obese individuals, with and without the metabolic syndrome. *Obesity*. 16:1277-83, 2008.
68. **T. Baynard**, H.M. Jacobs, C.M. Kessler, J.A. Kanaley, B. Fernhall. Vasodilatory capacity and fibrinolytic potential in endurance and resistance-trained men. *European J of Applied Physiology*. 101:595-602, 2007.
69. Unnithan, V.B., **T. Baynard**, C.R. Potter, P. Barker, K.S. Heffernan, E. Kelly, G. Yates, B. Fernhall. An exploratory study of cardiac function and oxygen uptake during cycle ergometry in overweight children. *Obesity*. 15:2673-82, 2007.
70. Kanaley, J.A., **T. Baynard**, R.M. Franklin, R.S. Weinstock, S. Gouloupoulou, R. Carhart, Jr., A. Figueroa, B. Fernhall. The effects of a glucose load and sympathetic challenge on autonomic function in obese women with and without type 2 diabetes. *Metabolism*. 56:778-85, 2007.
71. Figueroa, A., **T. Baynard**, B. Fernhall, R. Carhart, J.A. Kanaley. Endurance training improves post-exercise cardiac autonomic modulation in obese women with and without type 2 diabetes. *European J of Applied Physiology*. 100:434-444, 2007.
72. Figueroa, A., **T. Baynard**, B. Fernhall, R. Carhart, J.A. Kanaley. Cardiovascular autonomic modulation after brisk walking in middle-aged women with type 2 diabetes and obesity. *European J of Cardiovascular Prevention and Rehabilitation*. 14:237-243, 2007.
73. Gouloupoulou, S., **T. Baynard**, S. Collier, I. Giannopoulou, A. Figueroa, B. Fernhall. Cardiac autonomic control in individuals with Down syndrome. *American J Mental Retardation*. 111:27-34, 2006.
74. Fernhall, B., A. Figueroa, S. Collier, S. Gouloupoulou, I. Giannopoulou, **T. Baynard**. Resting metabolic rate is not reduced in adult obese individuals with Down syndrome. *Mental Retardation*. 43:391-400, 2005.
75. Heffernan, K.S, **T. Baynard**, S. Gouloupoulou, I. Giannopoulou, S.R. Collier, A. Figueroa, B. Fernhall. Baroreflex sensitivity during static exercise in individuals with Down syndrome. *Medicine Science Sports and Exercise*. 37:2026-31, 2005.
76. **Baynard, T.**, R.M. Franklin, S. Gouloupoulou, R. Carhart, J.A. Kanaley. Effect of a single vs. multiple bouts of exercise on glucose control in women with type 2 diabetes. *Metabolism*. 54:989-994, 2005.
77. Giannopoulou, I., B. Fernhall, R. Carhart, R.S. Weinstock, **T. Baynard**, A. Figueroa, J.A. Kanaley. Effects of diet and/or exercise on the adipocytokine and inflammatory cytokine levels of postmenopausal women with type 2 diabetes. *Metabolism*. 54:866-875, 2005.
78. Figueroa, A., S. Collier, **T. Baynard**, I. Giannopoulou, S. Gouloupoulou, B. Fernhall. Impaired vagal modulation of heart rate in individuals with Down syndrome. *Clinical Autonomic Research*. 15:45-50, 2005.
79. Fernhall, B., A. Figueroa, S. Collier, **T. Baynard**, I. Giannopoulou, S. Gouloupoulou. Blunted heart rate response to upright tilt in individuals with Down syndrome. *Archives Physical Medicine and Rehabilitation*. 86:813-818, 2005.
80. **Baynard, T.**, V.B. Unnithan, K.H. Pitetti, B. Fernhall. Determination of ventilatory threshold in individuals with mental retardation, with and without Down syndrome. *Pediatric Exercise Science*. 16:126-137, 2004.

81. **Baynard, T.**, W.C. Miller, B. Fernhall. Effects of exercise on vasodilatory capacity in endurance and resistance trained individuals. *European Journal of Applied Physiology*. 89:69-73, 2003.
82. Rowland, T.W., V.B. Unnithan, B. Fernhall, **T. Baynard**, C. Lange. Left ventricular response to dynamic exercise in young cyclists. *Medicine Science Sports & Exercise*. 34:637-642, 2002.

B. Invited Reviews:

1. S. Phillips, LP Cahalin, K. Vukovic, **T. Baynard**. “It takes a village: defining the system-contributors to exercise limitations in heart failure”. Part of: Exercise & Rehabilitation in Heart Failure: A Physiologic and Clinical Perspective. *Heart Failure Clinics*. 11:1-16, 2015.
2. B. Fernhall, **T. Baynard**, G. Mendonca. Reduced work capacity in individuals with Down syndrome: A consequence of autonomic dysfunction? *Exerc Sport Sci Rev*. 41:138-47, 2013.
3. K. Pitetti, **T. Baynard**, S. Agiovlasitis. Down syndrome, physical activity and exercise. *Journal of Health and Sport Science*. 2:47-57, 2013.

C. Book Chapters:

1. Fernhall and **T. Baynard**. Down Syndrome and Exercise Testing/Training. *Clinical Exercise Physiology*. 3rd Edition. Editors- Ehrman, Gordon, Visich, Keteyian. Human Kinetics, Champaign, IL. pp 617-31, 2013.
2. K. Pitetti, **T. Baynard**, S. Agiovlasitis. ACSM Guidelines for Exercise Testing and Prescription. 10th ed. Chapter 11—Exercise Testing and Prescription for Populations with Other Chronic Diseases and Health Conditions: *Intellectual Disability and Down Syndrome*. Wolters Kluwer, Philadelphia, PA. pp 328-334, 2017.
3. B. Fernhall and **T. Baynard**. “Intellectual Disability” in *Cardiopulmonary Exercise Testing in Children and Adolescents*. Editor- Thomas W. Rowland. Human Kinetics, Champaign, IL. pp 205-214, 2018.
4. B Fernhall and **T. Baynard**. “Intellectual Disability” in *Clinical Exercise Physiology*. 4th Edition. Editors- Ehrman, Gordon, Visich, Keteyian. Human Kinetics, Champaign, IL. pp 599-612, 2019.
5. **T Baynard** and B Fernhall. “Intellectual Disability” in *Clinical Exercise Physiology*. 5th Edition. Editors- Ehrman, Gordon, Visich, Keteyian. Human Kinetics, Champaign, IL. In Press: 2020.

D. Manuscripts In Review:

- Sardeli AV, AF Gaspari, L do Carmo Santos, MLV Ferreira, AJ Rosenberg, **T Baynard**, B Fernhall, CR Cavaglieri, MPT Chacon-Mikahil. Hemyodynamic responses during resistance exercise and rest in young and older men. Submitted to *American Journal of Cardiovascular Disease*, 2020.
- M Wouters, TIM Hilgenkamp, **T Baynard**. Predicting maximal heart rate in children and adolescents with and without intellectual disabilities. Submitted to *Journal of Applied Research in Intellectual Disabilities*, 2019.
- RM Kappus, SA Phillips, JM Haus, T Baynard, B Fernhall. Sex differences in vascular function with aging and acute antioxidant supplementation. Submitted to *Journal of Applied Physiology*, 2019.
- P Sun, H Yan, S Ranadive, A Lane-Cordova, R Kappus, **T Baynard**, F Yu, S Li, B Fernhall. Racial differences in left ventricular filling pressure following aerobic exercise. Submitted to *International J Sports Medicine*, 2020.
- TIM Hilgenkamp, EC Schroeder, DW White, **T Baynard**, B Fernhall. Blunted autonomic response to standing up and passive tilt in individuals with intellectual disabilities. Submitted to *J Appl Physiol*, 2020.

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SO Wee, EC Schroeder, G Grigoriadis, AJ Rosenberg, K Bunsawat, TIM Hilgenkamp, **T Baynard**, B Fernhall. Effect of acute exercise on cerebral blood flow and cerebral pulsatility in individuals with Down syndrome. Submitted to *Medicine Science Sports & Exercise*, 2020.

Beck VDY, **T Baynard**, EC Lefferts, BA Hibner, B Fernhall, TIM Hilgenkamp. Anthropometry does not fully explain low fitness among individuals with Down syndrome. Submitted to *J Intellectual Disability Research*, 2020.

A Luong, M Buursma, S Dunn, T Baynard, U Bronas. ActiGraph and Heart Rate Variability Study Protocol: Amended for the COVID-19 Pandemic. Submitted to *J Cardiovascular Nursing*, 2020.

E. Manuscripts/Chapters In Preparation:

Baynard T, G Griffith, R Motl, B Fernhall. Multiple sclerosis and exercise training.

AJ Rosenberg, **T Baynard**. Effect of acute resistance exercise on systemic arterial hemodynamics and cerebral blood flow dynamics—sex differences.

S Sherman, T Baynard, AJ Rosenberg—carotid strain during resistance exercise.

EC Lefferts et al. Dissertation.

F. Refereed Scientific Abstracts (abstracts from the last 5 yrs provided; out of 205 scientific abstracts):

1. BM Shafer, PA Marqui, DW White, **T Baynard**. Normality of heart rate variability is improved when steady state heart rates are matched. FASEB, 2015.
2. Kappus RM, BM Shafer, SO Wee, **T Baynard**, JM Haus, SA Phillips, MD Brown, B Fernhall. Racial differences in macrovascular and microvascular function following acute antioxidant supplementation. FASEB, 2015.
3. **T Baynard**, SM Ranadive, AD Lane, H Yan, RM Kappus, B Fernhall. Differential response in arterial stiffness measures between obese and normal weight individuals. FASEB, 2015.
4. AJ Rosenberg, RM Kappus, K Bunsawat, BM Shafer, SO Wee, **T Baynard**, B Fernhall. Influence of age on blood pressure variability and baroreceptor sensitivity in response to acute exercise. FASEB, 2015.
5. Oviedo GR, C Javierre, **T Baynard**, J Cabedo-Sanromà, J Alamo, O Niño, M Guerra. Fitness, energy expenditure, and physical activity levels in adults and seniors with intellectual disabilities. *Med Sci Sports Exerc.*, 2015.
6. K Bunsawat, RM Kappus, AJ Rosenberg, **T Baynard**, MD Brown, JM Haus, SA Phillips, B Fernhall. Autonomic Function during Exercise in Older Adults: The Influence of Antioxidant Supplementation. *Med Sci Sports Exerc*, 2015.
7. G Griffith, SO Wee, R Klaren, R Motl, **T Baynard**, B Fernhall. Home-based exercise in persons with multiple sclerosis: fitness and walking mobility preliminary results. *Med Sci Sports Exerc*, 2015.
8. Rosenberg AJ, K Bunsawat, RM Kappus, BM Shafer, SO Wee, **T Baynard**, MD Brown, JM Haus, SA Phillips, B Fernhall. Racial differences in heart rate variability in response to acute exercise. *Med Sci Sports Exerc*, 2015.
9. Kappus RM, K Bunsawat, AJ Rosenberg, **T Baynard**, JM Haus, SA Phillips, MD Brown, B Fernhall. The effect of acute antioxidant supplementation on vascular dysfunction with aging. *Med Sci Sports Exerc*, 2015.
10. Marqui PA, BM Shafer, DW White, **T. Baynard**. Cardio-ankle vascular index as an alternative measure for arterial health. *Med Sci Sports Exerc*, 2015.

T. Baynard

Last updated 10-28-2020

11. RE Klaren, G Griffith, **T Baynard**, RW Motl, B Fernhall. Impact of home-based exercise intervention on fitness and walking outcomes in persons with multiple sclerosis: preliminary results. Consortium of Multiple Sclerosis Centers, 2015 (oral presentation).
12. K Bunsawat, DW White, BM Shafer, PA Marqui, Y Wang, B Fernhall, T Baynard. The influence of resting heart rate on low and very-low frequency blood pressure variability North American Artery, 2015.
13. ****AJ Rosenberg**, AD Lane-Cordova, RM Kappus, K Bunsawat, SO Wee, **T. Baynard**, B Fernhall. Carotid arterial circumferential strain has a greater association to vascular aging than conventional arterial stiffness. North American Artery, 2015. (oral presentation; 2nd place young investigator competition).
14. DW White, PA Marqui, Y Wang, B Fernhall, **T Baynard**. Resting heart rate is a factor in acute blood pressure variability responses to cycling. North American Artery, 2015.
15. Y Wang, DW White, PA Marqui, B Fernhall, **T. Baynard**. The blood pressure variability responses to light cycling in individuals with different resting heart rates. North American Artery, 2015.
16. G Griffith, RE Klaren, SO Wee, RM Kappus, RW Motl, **T Baynard**, B Fernhall. Differences in carotid arterial characteristics based on years since diagnosis in relapsing remitting multiple sclerosis patients. North American Artery, 2015.
17. SO Wee, G Griffith, RE Klaren, RW Motl, T Baynard, B Fernhall. Hemodynamic responses following 12 weeks of home-based exercise in individuals with multiple sclerosis: Wave separation analysis. North American Artery, 2015
18. AJ Rosenberg, AD Lane-Cordova, K Bunsawat, SO Wee, **T Baynard** and B Fernhall. The influence of sex and age on arterial function in response to an acute inflammatory stimulus. Artery (Krakow, Poland), 2015.
19. GJ Griffith, RE Klaren, SO Wee, RW Motl, **T Baynard**, B Fernhall. Baseline Clinical and Hemodynamic Characteristics of an Ongoing Home-Based Aerobic Exercise Randomized Controlled Trial in Multiple Sclerosis. Global Cardiovascular Clinical Trialist Forum, 2015.
20. **T Baynard**, R Arena, J Myers, LA Kaminsky. The Role of Body Habitus in Predicting Cardiorespiratory Fitness: Findings from the FRIEND Registry. Experimental Biology 2016.
21. AJ Rosenberg, DW White, EC Schroeder, TIM Hilgenkamp, B Fernhall, **T Baynard**. Height correction for carotid blood pressure is important during positional changes to account for gravitational effects when assessing arterial stiffness. Experimental Biology, 2016.
22. K Bunsawat, AD Lane-Cordova, B Fernhall, **T Baynard**. Effects of acute induced inflammation on arterial stiffness and compliance in overweight adults. Experimental Biology, 2016.
23. SO Wee, AJ Rosenberg, K Bunsawat, GJ Griffith, **T Baynard**, B Fernhall. Vascular responses to hypovolemic pressure challenge in individuals with Down syndrome. Experimental Biology, 2016.
24. G Grigoradis, K Bunsawat, TIM Hilgenkamp, **T Baynard**. Females have altered hemodynamics during exercise recovery with caffeine consumption. Experimental Biology, 2016.
25. **T Baynard**, TIM Hilgenkamp. Lower peak heart rate and oxygen uptake in individuals with intellectual disability. American College of Sports Medicine, 2016.
26. K Bunsawat, RM Kappus, AJ Rosenberg, SO Wee, B Fernhall, **T Baynard**. Parasympathetic modulation in aging adults: the influence of body composition. American College of Sports Medicine, 2016.
27. GJ Griffith, RE Klaren, SO Wee, RW Motl, **T Baynard**, B Fernhall. Fatigue level is associated with sleep quality but not vector magnitude in multiple sclerosis. American College of Sports Medicine, 2016.

28. G Grigoriadis, SO Wee, GJ Griffith, AJ Rosenberg, K Bunsawat, B Fernhall, **T Baynard**. Blood pressure and wave separation analysis: lower body negative pressure in individuals with Down syndrome. American College of Sports Medicine, 2016.
29. AJ Rosenberg, DW White, E Schroeder, TIM Hilgenkamp, B Fernhall, **T Baynard**. Gravitational effects on clinical assessment of arterial stiffness with cardio-ankle vascular index. American College of Sports Medicine, 2016.
30. SO Wee, AJ Rosenber, K Bunsawat, G Griffith, **T Baynard**, B Fernhall. Hemodynamic and peripheral vascular conductance in individuals with Down syndrome following a hypovolemic pressure challenge. American College of Sports Medicine, 2016.
31. M Wouters, TIM Hilgenkamp, **T Baynard**. Children with intellectual disability, with or without Down syndrome, have lower peak oxygen uptake than typically developing children. International Assoc. for the Scientific Study of Intellectual and Developmental Disabilities, (Melbourne, Australia), 2016.
32. M Wouters, TIM Hilgenkamp, **T Baynard**. The prediction of maximum heart rates in children with intellectual disabilities. International Assoc. for the Scientific Study of Intellectual and Developmental Disabilities, (Melbourne, Australia), 2016.
33. EC Schroeder, TIM Hilgenkamp, AJ Rosenberg, DW White, **T Baynard**, B Fernhall. Body mass index as an independent predictor of change in arterial stiffness parameters with body position. North American Artery, 2016.
34. K Bunsawat, G Grigoriadis, TIM Hilgenkamp, B Fernhall, **T Baynard**. Central hemodynamics and arterial stiffness in young obese adults. North American Artery, 2016.
35. AJ Rosenberg, SO Wee, EC Schroeder, K Bunsawat, G Grigoriadis, B Fernhall. **T Baynard**. Effect of acute resistance exercise on systemic arterial hemodynamics and cerebral blood flow dynamics: Is there a mismatch? North American Artery, 2016.
36. G Grigoriadis, K Bunsawat, B Fernhall, **T Baynard**. Blood pressure variability and baroreceptor sensitivity in normotensive obese in response to aerobic exercise. North American Artery, 2016.
37. SO Wee, AJ Rosenberg, K Bunsawat, G Griffith, **T Baynard**, B Fernhall. Vascular function in individuals with Down syndrome. North American Artery, 2016.
38. G Griffith, TIM Hilgenkamp, RE Klaren, SO Week, RW Motl, **T Baynard**, B Fernhall. Multiple sclerosis patients experience decline in more carotid artery functional properties with age than healthy peers. North American Artery, 2016.
39. RM Kappus, K Bunsawat, JM Haus, **T Baynard**, SA Phillips, MD Brown, B Fernhall. Sex differences in vascular function following antioxidant supplementation. North American Artery, 2016.
40. TIM Hilgenkamp, G Griffith, RW Motl, **T Baynard**, B Fernhall. Sex differences in vascular structure and function in individuals with multiple sclerosis. North American Artery, 2016.
41. K Bunsawat, G Grigoriadis, B Fernhall, **T Baynard**. Sympathetic vasoconstrictor response to lower body negative pressure in young obese adults. Artery (Copenhagen), 2016.
42. AJ Rosenberg, K Bunsawat, SO Wee, **T Baynard**, G Horn, DL Smith, B Fernhall. The detrimental effects of live firefighting on arterial mechanics and function in firefighters. Artery (Copenhagen), 2016.
43. SO Wee, AJ Rosenberg, K Bunsawat, G Griffith, **T Baynard**, B Fernhall. Artery (Copenhagen), 2016.
44. TIM Hilgenkamp, G Griffith, RW Motl, **T Baynard**, B Fernhall. Poor sleep quality related to worse vascular function in individuals with MS. Artery (Copenhagen), 2016.

45. **T Baynard** and B Fernhall. Central hemodynamic responses following exercise—interactions between sex and obesity. *Obesity*, 2016.
46. HG Mendez, AJ Rosenberg, **T Baynard**. Sex differences in cardiovascular function following acute lower body resistance exercise. Annual Biomedical Research Conference for Minority Students, Tampa, FL 2016.
47. Bunsawat K, SO Wee, G Griffith, MD Brown, SA Phillips, PJ Fadel, PS Clifford, B Fernhall, **T Baynard**. No evidence of impaired functional sympatholysis in young obese adults. *Experimental Biology*, 2017.
48. Grigoriadis G, AJ Rosenberg, SO Wee, EC Schroeder, **T Baynard**. Effects of aerobic capacity on arterial stiffness in multiple sclerosis. *Experimental Biology*, 2017.
49. Rosenberg AJ, SO Wee, EC Schroeder, G Grigoriadis, BM Sandroff, K Bunsawat, TIM Hilgenkamp, GJ Griffith, RW Motl, **T Baynard**. The Effects of Acute Aerobic Exercise on Cerebral Blood Flow and Cognition in Persons with Multiple Sclerosis. *Experimental Biology*, 2017.
50. Griffith G, SO Wee, RE Klaren, RW Motl, **T Baynard**, B Fernhall. Multiple sclerosis patients do not show changes in wave intensity analysis following home-based exercise. *Experimental Biology*, 2017.
51. Schroeder EC, TIM Hilgenkamp, AJ Rosenberg, DW White, **T Baynard**, B Fernhall. Hydrostatic pressure alone, not autonomic activation, increases arterial stiffness with torso inclination. *Experimental Biology*, 2017.
52. Thessa Hilgenkamp, Elizabeth C. Schroeder, Daniel W. White, **Tracy Baynard**, Bo Fernhall. Blunted autonomic response to head up tilt in individuals with intellectual disabilities. *Experimental Biology*, 2017.
53. Sang Ouk Wee, Alexander J. Rosenberg, Kanokwan Bunsawat, Garrett J. Griffith, **Tracy Baynard**, Bo Fernhall. Carotid Vascular Blood Flow in Individuals with Down Syndrome Following Low Body Negative Pressure Challenge. *Experimental Biology*, 2017.
54. Saed B, G Garrett, SO Wee, REK Bollaert, RW Motl, **T Baynard**, B Fernhall. The effect of home-based aerobic exercise on perceived quality of life in multiple sclerosis patients. *Experimental Biology*, 2017.
55. *G Griffith, RE Klaren, SO Wee, RW Motl, **T Baynard**, B Fernhall. Home-based aerobic exercise improves resistance artery function in multiple sclerosis patients. *North American Artery*, 2017. (*competitive selection for 1 of 10 oral presentation slots)
56. *EC Schroeder, AD Lane-Cordova, SM Ranadive, **T Baynard**, B Fernhall. Influence of sex and fitness on the vascular response to acute inflammation. *North American Artery*, 2017. (*competitive selection for 1 of 10 oral presentation slots)
57. *G Grigoriadis, AJ Rosenberg, SO Wee, EC Schroeder, K Bunsawat, **T Baynard**. Sex differences in carotid strain following resistance exercise. *North American Artery*, 2017. (*competitive selection for 1 of 10 oral presentation slots)
58. AJ Rosenberg, SO Wee, EC Schroeder, G Grigoriadis, K Bunsawat, GG Griffith, **T Baynard**. Effects of age on carotid artery circumferential strain following acute maximal resistance exercise. *North American Artery*, 2017.
59. K Bunsawat, G Grigoriadis, G Griffith, SO Wee, EC Schroeder, B Fernhall, **T Baynard**. Muscle blood flow responses to dynamic handgrip exercise in young obese adults. *American College of Sports Medicine*, 2017.

60. Rosenberg AJ, SO Wee, EC Schroeder, K Bunsawat, G Grigoriadis, BM Saed, B Fernhall, **T Baynard**. Effect of sex on systemic arterial hemodynamics following acute isokinetic resistance exercise. A American College of Sports Medicine, 2017.
61. G Grigoriadis, AJ Rosenberg, SO Wee, EC Schroeder, K Bunsawat, B Fernhall, **T Baynard**. Influence of sex on the relationship between leg strength and arterial stiffness. American College of Sports Medicine, 2017.
62. G Griffith, TIM Hilgenkamp, AJ Rosenberg, G Grigoriadis, K Bunsawat, B Saed, **T Baynard**. Treadmill vs. cycle ergometry graded exercise test responses in multiple sclerosis patients. American College of Sports Medicine, 2017.
63. Schroeder EC, AD Lane-Cordova, SM Ranadive, **T Baynard**, B Fernhall. High fit older adults maintain a similar endothelial-response to acute inflammation as younger adults. American College of Sports Medicine, 2017.
64. Fuller KNZ, G Griffith, RE Klaren, JM Haus, **T Baynard**, RW Motl, B Fernhall. Effect of exercise training on cellular inflammation and fitness in individuals with multiple sclerosis. American College of Sports Medicine, 2017.
65. Hilgenkamp TIM, EC Schroeder, DW White, **T Baynard**, B Fernhall. Blunted autonomic response to orthostasis in individuals with intellectual disabilities. American College of Sports Medicine, 2017.
66. Wee SO, AJ Rosenberg, K Bunsawat, G Griffith, **T Baynard**, B Fernhall. Arterial distensibility and compliance following lower body negative pressure in individuals with Down syndrome. American College of Sports Medicine, 2017.
67. AJ Rosenberg, SO Wee, EC Schroeder, G Grigoriadis, K Bunsawat, GG Griffith, **T Baynard**. Effect of age on cerebral blood flow dynamics following acute resistance exercise. APS conference— Cardiovascular Aging, New Frontiers and Old Friends, Westminster, CO, 2017.
68. *AJ Rosenberg, SO Wee, EC Schroeder, G Grigoriadis, GJ Griffith, B Fernhall, **T Baynard**. Effect of acute resistance exercise on arterial hemodynamics and cerebral blood flow dynamics: does sex matter? Artery (Pisa, Italy), 2017. *Selected for competitive oral abstract competition.
69. EC Schroeder, AD Lane-Cordova, SM Ranadive, **T Baynard**, B Fernhall. High fit older adults maintain a similar endothelial response to acute inflammation as younger adults. Artery (Pisa, Italy), 2017
70. TIM Hilgenkamp, G Griffith, RW Motl, **T Baynard**, B Fernhall. Impact of obesity on vascular structure and function in individuals with multiple sclerosis. Artery (Pisa, Italy), 2017.
71. AJ Rosenberg, EC Schroeder, G Grigoriadis, SO Wee, GJ Griffith, B Fernhall, **T Baynard**. The influence of aging on central artery stiffness and cerebral vascular function following an acute hypertensive stimulus. Experimental Biology, 2018.
72. G Grigoriadis, AJ Rosenberg, SO Wee, EC Schroeder, G Griffith, **T Baynard**. Acute effect of aerobic exercise on carotid strain in individuals with multiple sclerosis. Experimental Biology, 2018.
73. EC Schroeder, AJ Rosenberg, G Grigoriadis, SO Wee, B Fernhall, **T Baynard**. Differences in autonomic recovery following maximal resistance exercise in young and older adults. Experimental Biology, 2018.
74. TIM Hilgenkamp, EC Schroeder, DW White, **T Baynard**, B Fernhall. Blunted blood pressure to hand grip exercise in individuals with intellectual disabilities: preliminary results. Experimental Biology, 2018.

75. BA Hibner, G Griffith, EC Schroeder, AJ Rosenberg, TIM Hilgenkamp, RE Bollaert, RW Motl, **T Baynard**, B Fernhall. Impact of aerobic capacity, age, and duration of disease on arterial function in individuals with multiple sclerosis. *Experimental Biology*, 2018.
76. SO Wee, EC Schroeder, G Grigoriadis, K Bunsawat, AJ Rosenberg, G Griffith, **T Baynard**, B Fernhall. Cerebral blood flow characteristics following acute aerobic exercise in individuals with Down syndrome. *Experimental Biology*, 2018.
77. G Grigoriadis, AJ Rosenberg, SO Wee, EC Schroeder, G Griffith, B Fernhall, **T Baynard**. No Sex Differences in Arterial Stiffness and Hemodynamics Response to Resistance Exercise in Older Individuals. *ACSM*, 2018.
78. G Griffith, AJ Rosenberg, G Grigoriadis, K Bunsawat, SO Wee, EC Schroeder, B Saed, **T Baynard**. Cardiometabolic Prediction Equations Overestimate Cardiorespiratory Fitness for Treadmill and Cycle Ergometry in Multiple Sclerosis Patients. *ACSM* 2018.
79. K Bunsawat, G Grigoriadis, SO Wee, G Griffith, B Fernhall, **T Baynard**. Cardiac Autonomic Modulation Following Acute Aerobic Exercise in Young Obese Adults. *ACSM* 2018.
80. B Hibner, EC Schroeder, AJ Rosenberg, G Griffith, R Bollaert, RW Motl, A Kick, **T Baynard**, B Fernhall. Physical Activity is Associated with Walking Capacity in Persons with Multiple Sclerosis. *ACSM* 2018.
81. EC Schroeder, AD Lane-Cordova, SM Ranadive, **T Baynard**, B Fernhall. Body Mass Index Does Not Influence the Endothelial Response to Acute Inflammation in Younger or Older Adults. *ACSM* 2018.
82. SO Wee, EC Schroeder, G Grigoriadis, AJ Rosenberg, K Bunsawat, G Griffith, **T Baynard**, B Fernhall. Effects of acute aerobic exercise on cognitive function in individuals with Down syndrome. *ACSM* 2018.
83. EC Schroeder, TIM Hilgenkamp, **T Baynard**, B Fernhall. Potential microvascular compensation for the reduction in endothelial function during acute inflammation: preliminary results. *North American Artery*, 2018.
84. G Grigoriadis, AJ Rosenberg, SO Wee, EC Schroeder, G Griffith, **T Baynard**. Poor sleep quality is associated with poorer cerebrovascular function in individuals with MS. *North American Artery*, 2018.
85. BA Hibner, G Griffith, EC Schroeder, R Bollaert, RW Motl, **T Baynard**, B Fernhall. Aerobic capacity is associated with vascular function in persons with multiple sclerosis. *North American Artery*, 2018.
86. TIM Hilgenkamp, SO Wee, **T Baynard**, B Fernhall. Peripheral blood flow regulation in response to sympathetic stimulation in individuals with Down syndrome. *North American Artery*, 2018.
87. G Grigoriadis, AJ Rosenberg, SO Wee, EC Schroeder, G Griffith, **T Baynard**. Sleep quality is associated with cerebrovascular function in individuals with multiple sclerosis. *Artery (Portugal)*, 2018.
88. EC Schroeder, TIM Hilgenkamp, **T Baynard**, B Fernhall. Reduction in endothelial, but not microvascular, function during acute inflammation: preliminary results. *Artery (Portugal)*, 2018.
89. TIM Hilgenkamp, SO Wee, **T Baynard**, B Fernhall. Down syndrome and blood flow. *Artery (Portugal)*, 2018.
90. EC Schroeder, TIM Hilgenkamp, WK Lefferts, **T Baynard**, B Fernhall. Influence of fitness on vascular function in young adults during acute inflammation. *Experimental Biology* 2019.
91. SR Sherman, TIM Hilgenkamp, EC Schroeder, B Fernhall, **T Baynard**. Sex differences in autonomic response to handgrip exercise among individuals with intellectual disability. *Experimental Biology* 2019.

92. G Grigoriadis, EC Schroeder, AJ Rosenberg, O Danciu, B Fernhall, **T Baynard**. Breast cancer survivors improved forearm blood flow following a single bout of aerobic exercise: preliminary results. *Experimental Biology* 2019.
93. TIM Hilgenkamp, SO Wee, H Hong, EC Schroeder, **T Baynard**, B Fernhall. Impaired regulation of peripheral blood flow and blood pressure in adults with Down syndrome. *Experimental Biology* 2019.
94. NS Lima, AJ Rosenberg, G Grigoriadis, EC Schroeder, WK Lefferts, **T Baynard**. Visceral fat has an impact on cerebral blood flow velocity in older adults. *ACSM*, 2019.
95. G Grigoriadis, B Hibner, EC Schroeder, AJ Rosenberg, G Griffith, AV Sardeli, OC Danciu, B Fernhall, **T Baynard**. Acute effect of aerobic exercise on arterial stiffness in breast cancer survivors: preliminary results. *ACSM*, 2019.
96. S Sherman, TIM Hilgenkamp, B Fernhall, **T Baynard**. Attenuated cardiac autonomic function to sympathoexcitation among individuals with intellectual disability. *ACSM* 2019.
97. EC Schroeder, TIM Hilgenkamp, WK Lefferts, AV Sardeli, S Arrioloa, **T Baynard**, B Fernhall. Influence of cardiorespiratory fitness on central and local arterial stiffness during acute inflammation. *ACSM*, 2019.
98. TIM Hilgenkamp, EC Schroeder, **T Baynard**, B Fernhall. Blood pressure regulation in response to handgrip exercise in individuals with intellectual disabilities. *ACSM*, 2019.
99. SO Wee, EC Schroeder, G Grigoriadis, AJ Rosenberg, K Bunsawat, T Baynard, B Fernhall. Vascular responses to submaximal intensity aerobic exercise in individuals with Down syndrome. *ACSM*, 2019.
100. G Grigoriadis, BA Hibner, EC Schroeder, AJ Rosenberg, OC Danciu, **T Baynard**. Similar effects of acute aerobic exercise on hemodynamics in breast cancer survivors: preliminary results. *North American Artery*, 2019.
101. NS Lima, EC Schroeder, TIM Hilgenkamp, WK Lefferts, B Fernhall, **T Baynard**. Sex differences in microvascular reperfusion during acute inflammation. *North American Artery*, 2019.
102. TIM Hilgenkamp, SO Wee, EC Schroeder, **T Baynard**, B Fernhall. Central hemodynamic response to lower body negative pressure in individuals with Down syndrome. *North American Artery*, 2019.
103. SR Sherman, EC Schroeder, B Fernhall, **T Baynard**, TIM Hilgenkamp. Blood pressure variability responses to handgrip exercise among individuals with intellectual disability. *North American Artery*, 2019.
104. **S Reutrakul, J Park, F Chau, **T Baynard**, M Priyadarshini, E VanCauter, SJ Crowley, J McAnany. Intrinsically photosensitive retinal ganglion cell dysfunction in diabetic retinopathy associates with impaired sleep and circadian functioning. Accepted for an oral presentation at American Diabetes Association Scientific Meeting 2019.
105. A Ando, G Grigoriadis, J Caldwell, N McMillan, **T Baynard**, E Carmona-Powell, A Ansari, W Dabbas, J Chen, B Fernhall, AC Ricardo. Resistance exercise training in chronic kidney disease: A randomized pilot trial. *American Society for Nephrology annual meeting*, 2019.
106. **T Baynard**, VDY Beck, EC Schroeder, BA Hibner, Bo Fernhall, TIM Hilgenkamp. Body composition does not influence aerobic capacity in Individuals with Down syndrome: preliminary results. *Obesity*, 2019.

107. NS Lima, AJ Rosenberg, EC Schroeder, WK Lefferts, SR Sherman, G Grigoriadis, **T Baynard**. Increased cerebral blood velocity during acute resistance exercise is similar between young and older adults. *Experimental Biology*, 2020.
108. SR Sherman, AJ Rosenberg, EC Schroeder, WK Lefferts, NS Lima, G Grigoriadis, **T Baynard**. No sex differences in cerebral blood velocity responses during acute resistance exercise. *Experimental Biology*, 2020.

G. Abstracts Submitted:

1.

H. Invited Presentations:

1. Joslin Diabetes Center, SUNY Upstate Medical University, 2004; *“VCAM, ICAM, WhoCam?”*
2. Joslin Diabetes Center, SUNY Upstate Medical University, 2005; *“Short-term exercise effects on arterial function and type 2 diabetes”*
3. Skidmore College, April 2006; *“Short-term training effects on myocardial and vascular function in type 2 diabetes”*
4. MARC-ACSM, Harrisburg, PA, Nov. 2007; *“Diabetes—Is it a metabolic disease or an arterial disease? A closer look at cardiovascular implications with diabetes”*
5. European College Sports Sciences Satellite Course—Inflammation & Cardiovascular disease—July 2008, Lisbon, PORTUGAL--*“Obesity, Diabetes, and Cardiovascular Disease”*
6. Seminar speaker—Integrative Immunology & Behavior Group, UIUC; Feb 2008.
7. Seminar speaker—Division of Nutritional Sciences, UIUC; Jan 2009; *“Dangerous Times?—The postprandial period and cardiovascular function in obesity”*
8. Seminar speaker—Department of Bioengineering, UIUC, Sept. 2011 *“Hot Fat”*
9. Seminar speaker—Department of Kinesiology & Nutrition; UIC, Oct 2011 *“Hot Fat”*
10. Grand Rounds—Neurology, UIC, Sept 2012 *“Therapeutic effects of exercise in demyelinating disease”*
11. Seminar speaker—Integrative Immunology & Behavior Program, UIUC, Nov 2012, *“Transitioning to the Real World: What to do When Your Clone Doesn’t Arrive”*
12. U of I Cancer Center Diet & Behavior Shared Resource Training Symposium, UIC, May 2013, *“Physical Activity & Physical Fitness Measurements”* (Baynard & Marquez).
13. Seminar Speaker—Physical Therapy Dept, UIC, Aug 2013, *“Down Syndrome, Obesity, & Autonomic Function”*
14. Seminar Speaker—Dept. of Kinesiology, University of Kentucky, Apr 2014. *“Autonomic Dysfunction and Heart Rate Variability in Special Populations”*
15. Seminar Speaker—Division of Endocrinology, Diabetes and Metabolism, UIC, Oct 2014. *“Dangerous Times? The postprandial period and cardiovascular function in obesity and diabetes”*
16. Seminar Speaker—Dept. of Nutrition & Exercise Physiology, University of Missouri, Nov 2014. *“Down Syndrome & Autonomic Function—Is Obesity a Problem Here?”*
17. Seminar Speaker—Pulmonary, Critical Care, Sleep & Allergy Research Conference Series, UIC Apr 2015. *“Hot fat—obesity, inflammation and exercise training”*

18. Symposium speaker—American College of Sports Medicine National Meeting (San Diego, CA), May 2015. *“Heart Rate Variability, Exercise, and Special Populations”*.
19. Symposium speaker—European College Sports Sciences (Malmo, Sweden)-Polar Sponsored Symposium, June 2015—*“Heart Rate Variability and Exercise Training: A Possible Way to Improve Fitness in Clinical Populations”*.
20. Seminar Speaker—Dept. of Physiology & Biophysics, UIC, Nov 2015. *“Autonomic Dysfunction in Individuals with Down Syndrome”*.
21. Symposium speaker—International Assoc. Scientific Study Individuals with Intellectual Disabilities. Session: Challenging implicit assumptions of intervention to improve physical activity and fitness levels in people with ID: the impact of physiology. **Baynard’s talk:** *Autonomic Regulation in Individuals with Down Syndrome: What Do We Know and Where to Go*. Melbourne, Australia, Aug 2016.
22. Seminar Speaker—University of Western Australia, School of Sport Science, Exercise, and Health (Perth, Australia; Invited by Danny Green), Aug 2016. *Exercise and autonomic function in obesity and diabetes*.
23. Seminar Speaker—Murdoch University, School of Psychology and Exercise Science (Perth, Australia), Aug 2016. *Limitations to physical work capacity in Down syndrome—a case of autonomic dysfunction*.
24. Seminar speaker—UIC Department of Medicine, Division of Endocrinology, Diabetes & Metabolism Journal and Research Club, June 2017. *A Novel Exercise Training Paradigm for Individuals with Type 2 Diabetes*.
25. Seminar speaker—University of Florida, Department of Applied Physiology & Kinesiology, March 2019. *Multiple Sclerosis—The Role of Exercise on Cardiovascular Function*.

I. Miscellaneous Presentations

- Graduate Seminar Series—Syracuse University: Syracuse, NY
Sept. 2001, Feb. 2004, Dec. 2004, Nov. 2006
- Graduate Seminar Series—University of Illinois at Urbana-Champaign: Urbana, IL
Oct. 2007
- Mid-Atlantic Regional ACSM (free communications): 2001-2005
- New York Exercise Science Consortium (free communication): Ithaca, NY, 2002
- Onondaga County Employees “Exercise & Your Health—Tips for Moving”, 2003
- Poster Presentation—UIC Diabetes & Obesity Research Day Oct 14, 2014; Sae Young Jae and **T. Baynard**. “Metabolically healthy obesity and carotid atherosclerosis: effects of cardiorespiratory fitness”
- Guest Lecturer—UIC, Dept. of Biophysics & Physiology, PHYB 518 Cardiac & Vasculature Pathophysiology course, *Clinical Utility of Measuring Oxygen Uptake*, 2018 and 2019 (O’Donnell Course coordinator)

J. Symposium Proposals: Symposium Organizer/Speaker

- **Symposium Organizer** --ACSM May 2015. Symposium “Nervous about Exercise? Exercise, Autonomic Function, and Vascular Control”. (Peter Raven, Ph.D. (chair), speakers: Paul Fadel, Ph.D., **Tracy Baynard Ph.D.**, Danny White Ph.D., John Halliwill, Ph.D.)

- **Featured Topic Organizer & Chair**—Experimental Biology April 2016. “Recovery from exercise and translating post-exercise hypotension”. (John Halliwill, Ph.D. (U of Oregon) and Claudia Forja, Ph.D. (U of São Paulo, Brazil)—invited speakers)
- **Featured Topic Organizer & Chair**—Experimental Biology, April 2017. “Vascular-mediated mechanisms of cognition and the role of exercise”. (Gary F. Mitchell (Cardiovascular Engineering Inc.)—invited speaker).
- **Symposium Organizer & Chair**—Experimental Biology April 2020. “2021 Vision of Integrated Physiology—Examining Sex Differences in Cardio & Cerebrovascular Physiology”. (T. Baynard (chair), Speakers: Virginia Miller, Jill Barnes, Megan Wenner, Qi Fu). Pushed to 2021’s programming.
- **Symposium Organizer & Chair**—Experimental Biology April 2021. Staying Organized—Laboratory Management. (T. Baynard (chair), Speaker: Jeremy Boss).
- **Symposium Organizer & Chair**—Experimental Biology April 2021. Staying Organized—Personal Productivity. (T. Baynard (chair), Speaker: Susan Johnson).
- **Symposium Organizer & Chair**—Experimental Biology April 2021. Staying Organized—Grant Management. (T. Baynard (chair), Speaker: Janie Recklehoff).

4. RESEARCH GRANTS

A. External Awarded:

1. CCTS Pilot Grant: K. Smith. Role-Co-I. Awarded October 2020.
2. Discovery Partners Institute—University of Illinois System. Development of the Kidney Wellness Institute of Illinois. PI-Wilund. **Role—Co-I (0%)**. 10-1-20 to 9-20-21
3. NIH NHLBI. K99/R00. Reducing blood pressure in mid-life adult binge drinkers: the role of microvascular function and sympathetic activity. PI-Chueh-Lung (Laura) Hwang. **Role: Co-Mentor (0%)**. 10-1-20 to 9-30-24.
4. American Heart Association (Mid-West Affiliate) Post-doctoral Fellowship, Trainee: Chueh-Lung Hwang. Effect of binge drinking on blood pressure and arterial function in young women. **Baynard-co-mentor (0%)**. 1-1-20 to 12-31-21; \$52,000 total.
5. University of North Carolina-NIH (Ancillary Study). R01AG061088. Arterial stiffness, brain morphology, cognition, and dementia in US Hispanics/Latinos. Prime PI-Michelle Myer (UNC); Sub-PI-M Daviglus. **Role-Co-I (5% 12 mo)**. 12-1-18 to 11-30-21.
6. Department of Defense MSRP in MS. (W81XWH1810466) Mechanisms of low physical work capacity, fatigue, and reduced mobility in multiple sclerosis. PI-B Fernhall. **Role—Co-I (5% 9 mo appt; 15% summer)**. 9-1-18-8-31-20.
7. NIH K99/R00. Central and peripheral regulation of blood flow during exercise in individuals with Down syndrome. PI-TIM Hilgenkamp. **Role—Co-Mentor (0%)**. *Priority score 16*. 11-1-2016 to 10-31-2021.
8. American Diabetes Association Junior Faculty Development Award—Heart rate variability-guided exercise training in type 2 diabetes. **Baynard-PI (15%)**. 1-1-2017 to 12-31-2020. \$552,000 total. (#1-17-JDF-073)
9. NIH NICHD R01. The pro-inflammatory effects of acute exercise in children with sickle cell anemia. PI-R. Liem; **Role—Site-PI (10%)**, 4-1-17 to 3-31-21. (1R01HL136480)

10. American Heart Association (Mid-West Affiliate) Pre-doctoral Fellowship, Kanokwan Bunsawat Ph.D. candidate—Role of Obesity on Neurovascular Responses to Exercise. **Baynard-Sponsor.** 1-1-16 to 12-31-17; \$52,000 total. (16PRE26430096)
11. Department of Veterans Affairs, VA Merit Award. “Exercise Therapy to Reduce Heart Failure Symptoms: Sorting Mechanisms of Benefit” (10-1-15 to 9-30-17). Total \$1,100,00 (UIC portion \$124,009) PI-Dan Forman (VA Pittsburgh Medical Systems); **Baynard-Site PI** (5%). (F0834-R)
12. National Multiple Sclerosis Society, January 2013. “Exercise, Subclinical Atherosclerosis, and Mobility in Multiple Sclerosis” (12-1-12 to 9-30-16). Total-\$652,590. PI-Fernhall; **Baynard-Co-I** (5%).
13. 2012-National Multiple Sclerosis Society: **Baynard-Site PI** (30%), Rob Motl—PI (UIUC). “Project METS in MS—Multimodal exercise training stimulus in multiple sclerosis”. 4-1-12 to 3-31-13, UIC portion-\$149,417
14. 2009-NIH S10 Grant (Shared Instruments Grant): **Baynard--minor user** (PIs-William O’Brien & Stephen Boppart @ UIUC) “High-Resolution In Vivo Ultrasound Imaging Using VisualSonics VEVO 2100 System”, \$499,098

Internal Awarded:

1. 2012-UIC—Chancellor’s Discovery Fund—**Baynard—PI** (Co-I: SC Dudley). “Sex specific differences in ventricular-arterial coupling during hyperglycemia in heart failure.” 0%, 6-1-2012 to 5-30-2013. \$60,000
2. 2009-UIUC Mary Jane Neer Grant—**Baynard--PI** (Co-I: Paul Gold, Bo Fernhall), \$15,000. “Can administration of activity-dependent neuroprotective protein ameliorate common decrements in brain and autonomic function in a mouse model of Down syndrome?”.
3. 2009-UIUC Research Board. **Baynard-PI.** (Co-I: Jeffrey A Woods), \$13,953. “Temporal development and the effects of exercise training on adipose tissue hypoxia and inflammation in mice fed a high-fat diet”.

Pending

1. NIH T32 Training Grant. Division of Endocrinology, Diabetes, & Metabolism. Diabetes, Obesity, and Nutrition. **Role—mentor.** Resubmitted June 2019, 2020.
2. Danielson, Role Co-I, Submitted...

Not funded

1. NIH R21. Exploring cerebral blood flow as a biomarker of neuromodulation post stroke. Madhavan. **Role—Co-I.** Resubmitted July 2020. DoD.
2. DoD. Fernhall. **Role-Co-I.** Submitted June 2020.
3. CCTS Pilot Grant: LOI. Phillips. Role-Co-I. Submitted July 2020.

Pre-doctoral Student awards

External Awarded

- Sigma Delta Epsilon Fellowship: Graduate Women in Science: ‘Short-term training effects on myocardial and vascular function in type 2 diabetes during acute hyperglycemia’; \$3000, 2005

- American College of Sports Medicine Mid-Atlantic Region: *‘Short-term training effects on vascular function in persons with metabolic syndrome, during acute hyperglycemia’*; \$500, 2005
- Life Fitness Academy: Michael L. Pollock Memorial Research Grant: *‘Effect of aerobic exercise training on autonomic function in type 2 diabetic women’*; \$2500, 2003
- American College of Sports Medicine Foundation Research Grant: *‘Effect of Exercise on Fibrinolysis and Vasodilatory Capacity’*; \$5000, 2002

Internal Awarded

- Syracuse University Graduate School Travel Grants, total of \$2400 2001-2006
- Sidney Young Award, Exercise Science Department, Syracuse University: 2003, 2004
- Graduate School Research & Creative Grant Competition, Syracuse University: 2003, 2004

5. PROFESSIONAL SERVICE, AWARDS, HONORS

A. Departmental Service:

--University of Illinois at Chicago—Dept. of Kinesiology & Nutrition

- Annual PhD Student Review Committee—2020-
- Search Committee Chair, Tenure-Track Assistant/Associate Professor in exercise physiology—FA 2019.
- Search Committee Chair, Open Rank Clinical Professor in Exercise Physiology, SU 2019
- Academic Affairs Committee, member, May 2018-Fall 2019
- MS in Kinesiology Task Force committee member, August 2018-present
- Search Committee Chair, Tenure-Track Assistant/Associate Professor in exercise physiology—FA 2018.
- Search Committee member, Anatomy & Physiology –SP 2018:
 - Open Rank Clinical Professor
 - Lab Director Clinical Instructor
- Promotion & Tenure committee member—2017-present
- Developed Pilot Undergraduate Mentoring for Success Program-SP 2016

--University of Illinois at Chicago—Dept. of Biomedical and Health Information Sciences

- Promotion & Tenure committee member, FA 2018

--University of Illinois at Urbana-Champaign—Dept. of Kinesiology & Community Health

- Director of the Lifetime Fitness Program, 2010-2011
- Visiting Instructor Search Committee, 2010-2011
- Travel Awards Committee, FA 2008

B. College Service

--University of Illinois at Chicago-College of Applied Health Sciences

- Director, Integrative Physiology Laboratory, June 2017-present
- CAHS Research Re-Opening Taskforce, May 2020-present
- Search Committee Chair, 1 Research Specialist (Research coordinator), Spring 2020
- Search Committee Chair, 1 Research Specialist (Laboratory manager), Spring 2018
- Search Committee Chair, 1 Research Specialist (Laboratory manager), Spring 2015
- Search Committee Chair, 2 Research Specialists (Laboratory manager; Research coordinator), Spring 2014

- Search Committee Chair, 2 Research Specialists (Laboratory manager; Research coordinator), Fall 2012
- **--University of Illinois at Chicago-Honors College**
- Interviewer for incoming students, SP 2013, 2014, 2015, 2016
- Tuition waiver committee, Fall 2013

C. University Service

- UIC—Chancellor’s Graduate Research Award Program-Reviewer (2015-2017)
- UIC—Senate member (2012-2015)
- UIC Student Success Plan-Targeted First-Year Curriculum Task Force member (2013)
- Diabetes Day Planning Committee (UIC) (2018-present)

D. Professional Organization Memberships:

- American College of Sports Medicine: 2000-present
- American College of Sports Medicine Mid-Atlantic Region: 2000-2008
- American College of Sports Medicine Mid-West Region: 2009-present
- American Diabetes Association: 2004-2009, 2016-present
- American Heart Association: 2005-present
- American Physiological Society: 2003-present
- North American Artery: 2013-present
- North American Society for Pediatric Exercise Medicine: 2000-2009
- Obesity Society: 2009-present
- Sigma Delta Epsilon-Graduate Women in Science: 2004-2005
- The Physiological Society (UK) 2017-present

E. Editorialships:

- Associate Editor: *Medicine Science Sports and Exercise* (Sept 2017-present)
- Reviewing Editor: *Experimental Physiology* (2017-present)

F. Professional Organization Committee memberships:

- American Physiological Society—Career Opportunities in Physiology Committee, Jan 2019-Dec 2021
- American Physiological Society—Exercise Councilor on the Exercise & Environmental Physiology Section Steering Committee (elected position), April 2020-2023.

G. Ad Hoc Reviewer (*regular reviewer):

- Adapted Physical Activity Quarterly
- American Journal of Cardiology
- *American Journal of Physiology—Regulatory, Integrative & Comparative Physiology
- *American Journal of Physiology—Heart & Circulation
- Annals of the American Thoracic Society
- Annals of Behavioral Medicine
- Applied Physiology, Nutrition, & Metabolism

- Autonomic Neuroscience—Basic & Clinical
- BioMed Central
- Brain, Behavior & Immunity
- Developmental Neurorehabilitation
- Diabetes & Metabolism
- *Diabetes, Obesity & Metabolism
- Diabetologia
- *Disability & Rehabilitation
- Hypertension
- Hypertension Research
- *International Journal of Sports Medicine
- *Journal of Applied Physiology
- *Journal of Diabetes and Its Complications
- *Journal of Intellectual Disabilities Research
- Journal of Physical Activity & Health
- Journal of Visualized Experiments
- Mediators of Inflammation
- **Medicine Science Sports & Exercise
- Nutrition & Metabolism
- Obesity
- Pediatric Exercise Science
- *Pediatrics
- Vascular Medicine Journal

H. Grant/Fellowship Reviewer

- *American Physiological Society-Ad hoc member*: Undergraduate Summer Research Fellowship, Spring 2018-19
- *American Physiological Society –Ad hoc member*: Undergraduate Research Excellence Fellowship, Spring 2018-19
- *NIH Clinical & Integrative Cardiovascular Sciences (CICS) Study Section*-NIH Early Career Reviewer Program, June 2016
- *American Heart Association*:
 1. Career Development Award-Clinical Sciences: Jan 2020
 2. Behavioral Sciences Panel, standing member: 2011-2015
 3. Innovative Research Grant Panel: 2012
 4. *Ad hoc*: 2008-2010
- *Icelandic Research Fund: ad hoc*, 2011.
- *Diabetes United Kingdom-Research Grant*: ad hoc, 2005

I. Abstract Reviewer

- American Heart Association Scientific Session Abstract Reviewer (Obesity)—June 2016-2020

J. Scientific Judge

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- UIC Faculty Judge: Student Research Forum, 2012, 2013, 2016, 2018.
- American Society of Nutrition—Experimental Biology abstract competition 2011.
- UIUC--Nutrition Symposium Poster Judge, April 2008 & 2009

K. Chair of Scientific Oral/Thematic Poster Presentation session(s):

- American College of Sports Medicine—2018 Annual Meeting; Chair *Cardiac Physiology*, Thematic Poster session.
- Experimental Biology (American Physiological Society)—2017 (Organized, Proposed, Chaired)
- Experimental Biology (American Physiological Society)—2016 (Organized, Proposed, Chaired)
- European College Sports Science—assigned session, 2008

L. Meeting Organizer

- Lead organizer “Pre-AHA Scientific Sessions Meeting”; theme—Precision Medicine & Lifestyle, Nov 2018 held at UIC.
- Lead organizer “Pre-Experimental Biology Meeting” between UIC and University of Wisconsin, 2017.
- Lead organizer “Illinois Brain, Behavior & Immunity”, Chicago, IL 2012
- Co-organizer “Illinois Brain Behavior & Immunity”, Chicago, IL 2011

M. Academic/Professional Honors:

- Fellow, American Heart Association, 2020
- Fellow, The Obesity Society, 2015
- Fellow, American College of Sports Medicine, 2013
- Doctoral Prize—School of Education, Syracuse University, 2008
- Recipient of the “Michael L. Pollock Scholarship Award”—American College of Sports Medicine, 2007
- Recipient of ‘President’s Award’—American College of Sports Medicine Mid-Atlantic Region, 2004
- Recipient of ‘Outstanding Teaching Assistant Award’: Syracuse University, 2004
- Honorable Mention: MARC-ACSM student research award, 2003
- Graduated Magnus Cum Laude: Western Maryland College, 1993
- Phi Beta Kappa—Liberal Arts Honor Society, 1993
- Dean’s List: 1989-1993 (Western Maryland College); 2000, 2001 (The George Washington University)
- Recipient of ‘Outstanding Physical Education Major of the Year’: 1993 --American Alliance for Health, Physical Education, Recreation and Dance (Western Maryland College)

N. Mentoring

- Part of mentoring team for Chueh-Lung (Laura) Hwang, PhD—Post-doc in Dr. Shane Phillips lab, UIC (Jan 2019-present).
- Visiting UG scholar from McDaniel College (Westminster, MD)—Catherina Park—Summer 2019.
- Experimental Biology Meeting Mentor for a *Martin Frank Diversity Travel Fellow* (Anson Blanks, Augusta University), 2019.

- Co-mentored Wes Lefferts, PhD—post-doc in the Integrative Physiology Laboratory (July 2018-July 2020).
- Mentored 2 trainees/year as part of “Mentoring on the Go” program through the American Physiological Society at the 2017 & 2018 annual Experimental Biology meeting.
- Co-mentored Thessa Hilgenkamp, PhD—post-doc in the Integrative Physiology Laboratory (Nov 2016-Aug 2018).
- Faculty advisor through the UIC Graduate College’s *Summer Research Opportunity Program*, Summer 2016, Mr. Hernán Mendez (Puerto Rico). Accepted into University of North Carolina’s Biology PhD Cellular Biology & Physiology program (FA 2018).
- UIC Dept. of Kinesiology & Nutrition Helen Barton Scholarship Awardees—
 - a) Cory Silver-Summer 2012
 - b) Jeremy Shoup-Summer 2013
 - c) Paul Marqui-Summer 2014
 - d) Elliot Weiss-Summer 2015
 - e) Martin Gibe-Summer 2018
 - f) Ellie Lai- Summer 2018
- American Physiological Society ‘meeting mentor’ to a graduate fellow—part of their “Minority Travel Fellow” program. Inflammation, Immunity, CVD APS meeting, Westminster, CO, 2010.

O. Baynard’s Trainee Awards/Honors/Fellowships

- **Sara Sherman:** Two-time recipient of the Avery Brundage Scholarship. May 2019, 2020
- **Georgios Grigoriadis:** Recipient of the Best Abstract Award at the North American Artery Annual Meeting (May 2017), Chicago, IL.
- **Kanokwan Bunsawat:**
 1. Recipient--Pre-Doctoral Fellowship, American Heart Association (1-1-16 to 12-31-17).
 2. Recipient—American Physiological Society Caroline tum Suden/Frances Hellebrandt Professional Opportunity Award (\$500), Feb 2017.
 3. Recipient—American College of Sports Medicine-Gatorade Sports Science Institute Young Scholar Travel Award (\$1000), May 2017.
- **AJ Rosenberg:**
 1. Recipient--Early Investigator Award at the North American Artery Annual Meeting (Sept 2016), Chicago, IL.
 2. Recipient--Bursar’s Award (competitive travel award--500 euro) for his abstract submission to Artery (Association for Research into Arterial Structure and Physiology; International meeting held in Copenhagen, Denmark Oct, 2016).
 3. Recipient- Bursar’s Award (competitive travel award--500 euro) for his abstract submission to Artery International meeting held in Pisa, Italy Oct, 2017).
- **Thessa Hilgenkamp** (Baynard-Co-Mentor): Recipient of the Best Abstract Award at the North American Artery Annual Meeting (Sept 2016), Chicago, IL.
- **Hernán Mendez:** Full travel award for his abstract “Sex differences in cardiovascular function following acute lower body resistance exercise.” Presented at the Annual Biomedical Research Conference for Minority Students, Tampa, FL 2016.

6. STUDENTS-- THESIS/DISSERTATIONS:

Current Graduate Advisees

Ph.D.

- *Natalia Lima*—UIC, PhD student, 2018-present
- *Sara Sherman*—UIC, PhD student, 2018-present

MS

- *Angelo Giannoni*—UIC, MS student, 2019-present
- *Dylan Lidge*—UIC, MS student, 2019-present

M.S. Thesis Committee Member—Current

Angelo Giannoni—UIC, MS student, thesis advisor

Ph.D. Dissertation Committee Member—Current

Rich Severn, DPT—UIC, advisor Shane Phillips

Elizabeth Schroeder, MS—UIC, advisor Bo Fernhall

Chun-Hao (Phillip) Huang, MS--UIC, advisor Kharma Foucher

Ph.D. Committee Member—External Reviewer

Murdoch University, Perth, Australia. Advisor: Tim Fairchild, PhD

Aaron Raman, *The role of exercise in glycaemic control and inflammation in overweight/obese individuals with and without type 2 diabetes.*

Fall 2018

Former Graduate Students:

MS Advisees Graduated

- *Kari Hultgren, M.S.*—UIC (Project), May 2014
- *Keith Kowalski, M.S.*—UIC (Project), May 2015
- *Yiyu (David) Wang, M.S.*—UIC (Project), May 2016
- *Kristina Jackson, M.S.*—UIC (Project), May 2017
- *Kelsey Mix, M.S.*—UIC (coursework), May 2018
- *Aditi Gupte, M.S.*—UIC (coursework), May 2019
- *Rose Capone, M.S.*—UIC (Project), May 2019
- *Eric Guthrie, M.S.*—UIC (Project), May 2020

M.S. Committee Member—Theses Completed

- *Lindy Rossow, M.S.*, UIUC, advisor Bo Fernhall, 2008
- *Melissa Goslawski, M.S.*, UIC, advisor Shane Phillips, 2012
- *Megan Sullivan, M.S.*, UIC, advisor Giamila Fantuzzi, 2012
- *Edwin Miranda, M.S.*, UIC, advisor Jacob Haus, Aug 2016
- *Pooja Iyer, M.S.*, UIC, advisor Sangeetha Madhavan, May 2018

PhD Advisees Graduated /Committee Chair

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- Kanokwan Bunsawat, Ph.D., UIC, Aug 2017 (Current—AHA Post-doc University of Utah, mentor Walter Wray, PhD)
Dissertation: *The role of obesity on neurovascular responses to exercise*
- AJ Rosenberg, Ph.D., UIC, Dec 2017 (Current—NIH F32 Post-doc University of North Texas Health Sciences Center & University of Illinois at Chicago: UNT mentor Caroline Rickards, PhD; UIC mentor Bo Fernhall, PhD/Tracy Baynard, PhD)
Dissertation: *The effects of aging and sex on cerebral blood velocity in response to acute resistance exercise.*
- Georgios Grigoriadis, Ph.D., UIC, Aug 2020 (Current—Post-doc University of Illinois at Chicago, mentor Shane Phillips, PhD, PT).
Dissertation: *Physiological Factors Influencing Aerobic Capacity in Breast Cancer Survivors.*

Ph.D. Committee Member—Dissertations completed

- *Abbi Lane-Cordova*, Ph.D., UIC, advisor Bo Fernhall, Aug 2013
- *Huimin Yan*, Ph.D., UIUC, , advisor Bo Fernhall, May 2014
- *Jan Kretzschmar*, Ph.D., UIC, advisor Michael Brown, Aug 2014
- *Rebecca Kappus*, Ph.D., UIC, advisor Bo Fernhall, May 2015
- *John Trepanowski*, Ph.D., UIC, advisor Krista Varady, May 2015
- *Chenyi Ling*, Ph.D., UIC, advisor Michael Brown, Dec 2015
- *Austin Robinson*, Ph.D., UIC, advisor Shane Phillips, Aug 2016
- *Sang Ouk Week*, Ph.D., UIC, advisor Bo Fernhall, Aug 2017
- *Brian Blackburn*, Ph.D., UIC, advisor Jacob Haus, Dec 2018

7. TEACHING EXPERIENCE

University of Illinois at Chicago (2011-present):

A. Undergraduate

1. KN 194—Intro to Exercise Science & Health (SP 13; 27 students)—pilot to become permanent course
2. KN 152—Intro to Exercise Science & Health –an introductory exercise physiology course
 - a) SP 14; 198 students
 - b) FA 14; 75 students
 - c) SP 15; 150 students
 - d) FA 15; 157 students
 - e) SP 16; 122 students
 - f) FA 16; 164 students
 - g) SP 17; 144 students
 - h) FA 17; 192 students
 - i) SP 18; 141 students
 - j) FA 18; 150 students
 - k) SP19; 170 students
 - l) FA19; 190 students (team taught)

4. KN 396—Research Experience
 - a) SP 14; 1 student
 - b) FA 14; 1 student
 - c) SP 15; 3 students
 - d) FA 15; 3 students
 - e) SP 16; 3 students
 - f) FA 16; 2 students
 - g) SP 17; 6 students
 - h) FA 17; 1 student
 - i) SP 18; 1 student
 - j) FA 18; 2 students
 - k) SP 19; 1 student
4. KN 398/399: Undergraduate Research Project
 - a) SP 15/FA 15—1 student each semester
 - b) FA 18/SP19--1 student each semester

**Have had ~45 students volunteer in the laboratory since 2012, with some taking course credit (captured in KN 396, 398, or 399), and many purely volunteering.

5. KN 493—Undergraduate teaching assistant practicum—experiential learning (UGs assist graduate TAs in delivering the laboratory sections for KN152)
 - a) FA 15—8 students
 - b) SP 16—9 students
 - c) FA 16—13 students
 - d) SP 17—15 students
 - e) FA 17-- 13 students
 - f) SP 18—16 students
 - g) FA 18—11 students
 - h) SP 19—16 students
 - i) FA 19—8 students

B. Graduate

1. KN 594—Special Topics: Cardiovascular Exercise Physiology
 - a. SP 2012; 7 students
 - b. SP 2020; 6 students
2. KN 501—Journal Club (every FA/SP semester 2012-present)
3. KN 596—Independent Study (SP 12, SU 12, FA 12, SP 13, FA 13, SP14, FA14, SP15, FA15, SP16; FA 16, SP 17, SP 19, FA 19, SP 20)
4. KN 545—Advanced Exercise Assessment
 - a. FA 13 (team taught); 11 students
 - b. FA 15 (team taught); 10 students
 - c. FA 18 (sole instructor); 8 students

University of Illinois at Urbana-Champaign (2008-2011):

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A. Undergraduate

1. KIN 150—Bioscience of Human Movement
 - a) FA 08; 170 students
 - b) SP 10; 135 students
 - c) SP 11; 130 students
2. KIN 385—Undergraduate Research Experience
 - a) Summer 09; 1 student
 - b) FA 09; 4 students
 - c) SP 10; 4 students
 - d) FA 10; 8 students
 - e) SP 11; 8 students
3. KIN 386—Exercise Training in Elderly Populations—Experience Credit
 - a) FA 10; 3 students
 - b) SP 11; 11 students
 - c) SU 11; 1 student
4. KIN 485—Undergraduate Independent Study
 - a) FA 10; 4 students
 - b) SP 2011; 1 student

B. Graduate

1. KIN 551—Scientific Basis for Human Movement
 - a. FA 09; 17 students
 - b. FA 10; 8 students
2. KIN 553—Circulorespiratory Physiology (FA 08)—team taught; 12 students
3. KIN 590—Independent Study (FA/SP 2009-10, 2010-11)-2 students each semester
4. KIN 594—Special Topics in Cardiovascular Physiology & Metabolism (SP 09)—team taught; 4 students
5. KIN 594—Special Topics in Exercise Physiology Laboratory Techniques (SP 10)—course coordinator; 7 students

Invited Instructor: 2006, 2008, 2009, 2011, 2013, 2014

European Master's Course in Physiotherapy: *Exercise Testing and Evaluation*; taught in Lisbon, PORTUGAL at Lisbon Technical University Faculty of Human Movement. Course taught to students from PORTUGAL, NETHERLANDS, and SWITZERLAND