

# MATTHEW C. BABCOCK, PhD

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Aurora, CO 80045

## EDUCATION

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- PhD** University of Delaware, Applied Physiology May 2019  
Dissertation: “The effects of high dietary salt on blood pressure response to exercise”  
Advisor: William Farquhar, PhD
- MS** Syracuse University, Exercise Science May 2015  
Thesis: “The acute effects of supramaximal exercise on central artery hemodynamics”  
Advisor: Kevin Heffernan, PhD
- BA** Messiah College, Health and Exercise Science May 2010

## POSITIONS

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- Assistant Professor** July 2022 – Present  
University of Colorado Anschutz Medical Campus  
School of Medicine, Division of Geriatric Medicine
- Postdoctoral Fellow** July 2019 - June 2022  
Mentor: Kerrie Moreau, PhD  
University of Colorado Anschutz Medical Campus  
School of Medicine, Division of Geriatric Medicine
- Instructor** Aug. 2018 – June 2019  
Courses: KAAP442 – Readings in Applied Physiology  
Department of Kinesiology and Applied Physiology, University of Delaware
- Graduate Research Assistant** Aug. 2015 – June 2019  
Cardiovascular Physiology Lab  
Department of Kinesiology and Applied Physiology, University of Delaware
- Graduate Teaching Assistant** Aug. 2015 – June 2019  
Courses: KAAP430 – Exercise Science, KAAP475 – Clinical Exercise Physiology, KAAP 309 – Human Anatomy & Physiology I  
Department of Kinesiology and Applied Physiology, University of Delaware
- Graduate Research Assistant, Syracuse University** Aug. 2013 – May 2015  
Human Performance Laboratory  
Department of Exercise Science, Syracuse University

**Graduate Teaching Assistant**

Aug. 2014 – Jan. 2014

Courses: BIOL – Anatomy &amp; Physiology I

Department of Biology, Syracuse University

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**HONORS AND AWARDS**

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<b>Outstanding Ph.D. Instructor/Fellow</b>	2021
Colorado Nutrition and Obesity Research Core, University of Colorado	
<b>Exercise Science Outstanding Doctoral Student Award</b>	2019
Department of Kinesiology and Applied Physiology, University of Delaware	
<b>Caroline tum Suden/Frances Hellebrandt Award</b>	2019
American Physiological Society	
<b>Student Poster Award</b>	2018
American College of Sports Medicine Conference on the Integrative Physiology of Exercise	
<b>Department Travel Award (2)</b>	2017, 2018
Department of Kinesiology and Applied Physiology, University of Delaware	
<b>Professional Development Award (2)</b>	2017, 2018
Office of Graduate & Professional Development, University of Delaware	
<b>Professional Development Award</b>	2015
Graduate Student Organization, Syracuse University	
<b>Master's Student Investigator Award Finalist (2)</b>	2015
Mid-Atlantic Regional Chapter – American College of Sport Medicine	

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**RESEARCH SUPPORT**

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**Ongoing:**

Source: NIH K01HL164978

Title: *Neural and Renal Contributions to Hypertension with Androgen Deprivation Therapy*

Role: Principal Investigator

Dates: 08/2023 – 07/2028

Funds: \$831,005

Source: University of Colorado CTRC MicroGrant

Title: *Autonomic and Renal Contributions to Hypertension with Androgen Deprivation Therapy*

Role: Principal Investigator

Dates 06/2023 – 05/2026

Funds: \$30,000

Source: Colorado SCORE (U54AG062319-10) Pilot Award  
Title: *The Effects of Gonadal Aging on Sympathetic Support of Resting Metabolic Rate*  
Role: SCORE Scholar/Principal Investigator  
Dates: 09/2022-08/2024  
Funds: \$25,000

### **Completed**

Source: Western States Endurance Run Research Committee  
Title: *Acute and chronic effects of ultramarathon participation on vascular health*  
Role: Co-Investigator; PI: Gregory Grosicki, PhD  
Dates: 07/2022-06/2023  
Funds: \$24,913

Source: NIA/NIH Integrative Physiology of Aging Training Grant (T32AG000279-16A1)  
Title: *Cardiovascular and cognitive consequences of hypogonadism in men*  
Role: Trainee, PI: Robert Schwartz, MD  
Dates: 07/2019-06/2022  
Funds: \$179,346

Source: American College of Sports Medicine (17-00521)  
Title: *The effects of dietary salt on blood pressure responses to acute aerobic exercise*  
Role: Principal Investigator  
Dates: 07/2018-06/2019  
Funds: \$5,000

### **PUBLICATIONS**

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#### ***Published and In Press:***

1. Tharpe MA, Linder BA, **Babcock MC**, Watso JC, Pollin KU, Hutchison ZJ, Barnett AM, Culver MN, Kavazis AN, Brian MS, Robinson AT. “Adjusting for muscle strength and body size attenuates sex difference in the exercise pressor reflex in young adults.” *American Journal Physiology – Heart and Circulatory Physiology*. 2023. doi: 10.1152/ajpheart.00151.2023.
2. Linder BA, **Babcock MC**, Pollin KU, Watso JC, Robinson AT. “Short-term high salt consumption does not influence resting or exercising heart rate variability but increases MCP-1 concentration in healthy young adults.” *American Journal of Physiology – Regulatory and Comparative Physiology*. 2023. doi: 10.1152/ajpregu.00240.2022.
3. **Babcock MC**, DuBose LE, Hildreth KL, Stauffer BL, Cornwell WK 3<sup>rd</sup>, Kohrt WM, Moreau KL. Age-associated reductions in cardiovagal baroreflex sensitivity are exaggerated in middle-aged and older men with low testosterone. *J Appl Physiol*. 2022. doi: 10.1152/jappphysiol.00245.2022.
4. Barnett AM, **Babcock MC**, Watso JC, Migdal KU, Gutierrez OM, Farquhar WB, Robinson AT. High dietary salt intake increases urinary NGAL excretion and creatinine clearance in healthy young adults. *Am J Physiol Renal Physiol*. 2022. doi: 10.1152/ajprenal.00240.2021.

5. **Babcock MC**, DuBose LE, Witten TL, Stauffer BL, Hildreth KL, Schwartz RS, Kohrt WM, Moreau KL. "Oxidative stress and inflammation are associated with age-related endothelial dysfunction in men with low testosterone." *J Clin Endocrinol Metab*. 2021. doi: 10.1210/clinem/dgab715.
6. Migdal KU, Robinson AT, Watso JC, **Babcock MC**, Lennon SL, Martens CR, Serrador JM, Farquhar WB. "Ten days of high dietary sodium does not impair cerebral blood flow regulation in healthy adults. *Auton Neurosci*. 2021 Sep; 234:102826. doi: 10.1016/j.autneu.2021.102826.
7. Watso JC, **Babcock MC**, Migdal KU, Farquhar WB, Robinson AT. "The relation between habitual physical activity and sympathetic vascular transduction in healthy young adults." *Clin Auton Res*. 2021. doi: 10.1007/s10286-021-00770-0.
8. Sailer C, Edelmann H, Buchanan C, Giro P, **Babcock MC**, Swanson C, Spotts M, Schulte M, Pratt-Cordova A, Coe G, Beindorff M, Page RL 2<sup>nd</sup>, Ambardekar AV, Pal JD, Kohrt W, Wolfel E, Lawley JS, Tarumi T, Cornwell WK 3<sup>rd</sup>. "Impairments in blood pressure regulation and cardiac baroreceptor sensitivity among patients with heart failure supported with continuous-flow left ventricular assist devices." *Circ Heart Fail*. 2021. doi: 10.1161/CIRCHEARTFAILURE.120.007448.
9. **Babcock MC**, DuBose LE, Witten TL, Brubaker A, Stauffer BL, Hildreth KL, Moreau KL. "Assessment of macrovascular and microvascular function in aging males." *J Appl Physiol*, 2021. doi: 10.1152/japplphysiol.00616.2020.
10. DuBose LE, **Babcock MC**, Moreau KL. "Hormone cycles: not just a woman's 'problem'." *J Appl Physiol*, 2021. doi: 10.1152/japplphysiol.00809.2020.
11. Moreau KL, **Babcock MC**, Hildreth KL. "Sex Differences in vascular aging in response to testosterone". *Biology of Sex Differences*, 2020. doi: 10.1186/s13293-020-00294-8.
12. Migdal KU, Robinson AT, Watso JC, **Babcock MC**, Lennon SL, Martens CR, Serrador JM, Farquhar WB. "A high salt meal does not impair cerebrovascular reactivity in healthy young adults." *Physiol Rep*, 2020. doi: 10.14814/phy2.14585.
13. Watso JC, Robinson AT, **Babcock MC**, Migdal KU, Witman MAH, Wenner MM, Stocker SD, Farquhar WB. "Short-term water deprivation attenuates the exercise pressor reflex in older female adults." *Physiol Rep*, 2020. doi: 10.14814/phy2.14581.
14. **Babcock MC**, Robinson AT, Migdal KU, Watso JC, Martens CR, Edwards DG, Pescatello LS, Farquhar WB. "High salt intake augments blood pressure responses during submaximal aerobic exercise." *J Am Heart Assoc*, 2020. doi: 10.1161/JAHA.120.015633.
15. Lefferts WK, Augustine JA, Spartano NL, Hughes WE, **Babcock MC**, Heenan BK, Heffernan KS. "Effects of whey protein supplementation of aortic stiffness, cerebral blood flow, and cognitive function in community-dwelling older adults: findings from the ANCORS A-WHEY clinical trial". *Nutrients*, 2020. doi: 10.3390/nu12041054.
16. **Babcock MC**, Robinson AT, Watso JC, Migdal KU, Martens CR, Edwards DG, Pescatello LS, Farquhar WB. "Salt loading blunts central and peripheral postexercise hypotension". *Medicine and Science in Sports and Exercise*, 2020. doi: 10.1249/MSS.0000000000002187.
17. Migdal KU, **Babcock MC**, Robinson AT, Watso JC, Wenner MM, Stocker SD, Farquhar WB. "The impact of high dietary sodium consumption on blood pressure variability in healthy, young adults". *American Journal of Hypertension*, 2020. doi: 10.1093/ajh/hpaa014.

18. Watso JC, Robinson AT, **Babcock MC**, Migdal KU, Wenner MM, Stocker SD, Farquhar WB. "Short-term water deprivation does not increase blood pressure variability or impair neurovascular function in healthy young adults". *American Journal of Physiology – Regulatory, Integrative, and Comparative Physiology*, 2020. Doi: 10.1152/ajpregu.00149.2019.
19. Robinson AT, Watso JC, **Babcock MC**, Joyner MJ, Farquhar WB. "Record setting performance in a 70-year-old marathoner." *New England Journal of Medicine*, 2019. doi: 10.1056/NEJMc1900771.
20. Robinson AT, **Babcock MC**, Watso JC, Migdal KU, Wenner MM, Stocker SD, Farquhar WB. "Relation between resting sympathetic outflow and vasoconstrictor responses to sympathetic nerve bursts: sex differences in healthy young adults". *American Journal of Physiology – Regulatory, Integrative, and Comparative Physiology*, 2019. doi: 10.1152/ajpregu.00305.2018.
21. Watso JC, **Babcock MC**, Robinson AT, Migdal KU, Wenner MM, Stocker SD, Farquhar WB. "Water deprivation does not augment sympathetic or pressor responses to sciatic afferent nerve stimulation in rats or to static exercise in humans." *Journal of Applied Physiology*, 2019. doi: 10.1152/jappphysiol.00005.2019.
22. Migdal KU, Robinson AT, Watso JC, **Babcock MC**, Serrador JM, Farquhar WB. "A High Salt Meal Does Not Augment Blood Pressure Responses During Maximal Exercise." *Applied Physiology, Nutrition, and Metabolism*, 2019. doi: 10.1139/apnm-2019-0217.
23. **Babcock MC**, Robinson AT, Migdal KU, Watso JC, Wenner MM, Stocker SD, Farquhar WB. "Reducing dietary sodium to 1000 mg per day reduces neurovascular transduction without stimulating sympathetic outflow." *Hypertension*, 2018. doi.org/10.1161/HYPERTENSIONAHA.118.12074
24. **Babcock MC**, Brian MS, Watso JC, Edwards DG, Stocker SD, Wenner MM, Farquhar WB. "Alterations in dietary sodium intake affect cardiovagal baroreflex sensitivity." *American Journal of Physiology – Regulatory, Integrative and Comparative Physiology*, 2018. doi: 10.1152/ajpregu.00002.2018
25. **Babcock MC**, Watso JC. "Absent metaboreflex-induced increases in sympathetic outflow to contracting muscle." *Journal of Physiology*, 2018. doi: 10.1113/JP276240
26. Brian MS, Matthews EL, Watso JC, **Babcock MC**, Wenner MM, Rose WC, Stocker, SD, Farquhar, WBB. "The influence of acute elevations in plasma osmolality on sympathetic outflow and blood pressure responses to exercise." *Journal of Neurophysiology*, 2017. doi: 10.1152/jn.00559.2017
27. Watso JC, **Babcock MC**, Migdal KU, Robinson AT. "The baroreflex effectiveness index as an early marker of autonomic dysfunction in heart failure." *Journal of Physiology*, 2017. doi: 10.1113/JP274664
28. **Babcock MC**, Lefferts WK, Heffernan KS. "Relation between exercise central haemodynamic response and resting cardiac structure and function in young healthy men." *Clin Physiol Funct Imaging*. 2017. doi: 10.1111/cpf.12310.
29. Lefferts WK, **Babcock MC**, Tiss MJ, Ives SJ, White CN, Brutsaert TD, Heffernan KS. "Effect of hypoxia on cerebrovascular and cognitive function during moderate intensity exercise." *Physiology & Behavior*, 2016. doi: 10.1016/j.physbeh.2016.07.003
30. **Babcock MC**, Lefferts WK, Hughes WE, Fitzgerald KL, Leyer BK, Redmond JG, Heffernan KS. "Acute effect of high-intensity cycling exercise on carotid artery

hemodynamic pulsatility.” *European Journal of Applied Physiology*, 2014. doi: 10.1007/s00421-014-3084-6

### ***In Preparation***

1. Grosicki GJ, Watso JC, Bagley JR, El-Kurd OB, Vondrasek JD, Linder BA, Jeong S, Stute NL, Robinson AT, **Babcock MC**. “Acute effects of ultramarathon running on arterial stiffness and aortic hemodynamics.” *Medicine and Science in Sports and Exercise*, anticipated submission February 2024.
2. **Babcock MC**, Rosenberry R, DuBose LE, Hildreth KL, Stauffer BL, Cornwell WK, Kohrt WM, Moreau KL. “Increased endothelin-1 contributes to age-associated declines in endothelial function in men with low testosterone.” *Journal of Applied Physiology*, anticipated submission February 2024.
3. Robinson, AT, **Babcock MC**, Watso JC, Migdal KU, Wenner MM, Stocker SD, Farquhar WB. “High dietary salt intake augments the exercise pressor reflex.” *Hypertension*, anticipated submission March 2024.

### **INVITED LECTURES**

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1. Cardiorenal Effects of Androgen Deprivation Therapy: Mechanistic Insight to Inform Future Therapeutic Approaches. Colorado State University. Fort Collins, CO. September 2023.
2. The Effects of Gonadal Aging on Sympathetic Support of Resting Metabolic Rate. Ludeman Family Center National Conference on Women’s Health Research. Colorado Springs, CO. October 2022.
3. The Effects of Dietary Salt on Blood Pressure Responses to Acute Aerobic Exercise. American College of Sports Medicine’s Conference on the Integrative Physiology of Exercise. Baltimore, MD. September 2022.
4. Cardiovascular Outcomes of Low Testosterone: Mechanisms and Mysteries. Auburn University. August 2022.
5. Cardiovascular Aging in Men: What Role Does Testosterone Play? American College of Sports Medicine Annual Meeting. San Diego, CA. June 2022.
6. Analyzing cardiovascular baroreflex sensitivity; methodological approaches and considerations. Auburn University (via Zoom). January 2021.
7. Research in Progress: Cardiovascular outcomes of low testosterone in older men. University of Colorado School of Medicine Geriatric Grand Rounds. January 2021.
8. Flow mediated dilation; physiologic concepts and methodological considerations. Messiah College. February 2019.
9. Dietary sodium, RAAS, and Resting Sympathetic Outflow. University of Delaware Kinesiology and Applied Physiology Open House. November 2017.

### **ABSTRACT PRESENTATIONS**

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#### **\*Denotes oral presentation**

1. **Babcock MC**, DuBose LE, Hildreth KL, Stauffer BL, Moreau KL. “Endothelin-1 contributes to reduced endothelial function in middle-aged/older men with low testosterone”. American Physiology Summit. Long Beach, CA. April 2023.

2. **Babcock MC**, DuBose LE, Hildreth KL, Cornwell WK, Moreau KL. “Reduced baroreflex sensitivity in men with low testosterone – insight from the Valsalva maneuver.” American Autonomic Society Annual Meeting. Virtual. November 2021.
3. **Babcock MC**, Blankenship JM, Brubaker A, Witten TL, Hildreth KL, Moreau KL. “The association between physical inactivity and vascular dysfunction may be related to low testosterone concentrations.” American College of Sports Medicine Annual Meeting. 2020.
4. Barnett AM, **Babcock MC**, Watso JC, Migdal KU, Farquhar WB, Robinson AT. “The influence of salt loading on the kidney injury biomarker neutrophil gelatinase-associated lipocalin in healthy young adults.” Experimental Biology. 2020.
5. \*Robinson AT, Watso JC, **Babcock MC**, Joyner MJ, Farquhar WB. “Breaking3: Performance characteristics of a sub-three-hour septuagenarian marathoner.” American College of Sports Medicine Annual Meeting. Orlando, FL. May 2019.
6. **Babcock MC**, Robinson AT, Watso JC, Migdal KU, Martens CR, Edwards DG, Pescatello LS, Farquhar WB. “Effect of Sodium Supplementation on Postexercise Hypotension Following Acute Submaximal Aerobic Exercise.” American College of Sports Medicine Annual Meeting. Orlando, FL. May 2019.
7. Migdal KU, Robinson AT, Watso JC, **Babcock MC**, Serrador JM, Farquhar WB. “The Influence of a High Sodium Meal on Cerebrovascular Reactivity.” American College of Sports Medicine Annual Meeting. Orlando, FL. May 2019.
8. Watso JC, Robinson AT, **Babcock MC**, Migdal KU, Farquhar WB. “The Influence of Habitual Physical Activity on Arterial Baroreflex Sensitivity in Healthy Young Adults.” American College of Sports Medicine Annual Meeting. Orlando, FL. May 2019.
9. Robinson AT, **Babcock MC**, Migdal KU, Watso JC, Wenner MM, Farquhar WB. “The Influence of dietary sodium on circulating inflammatory cytokines in healthy young female adults.” Experimental Biology. Orlando, FL. April 2019.
10. \***Babcock MC**, Robinson AT, Watso JC, Migdal KU, Wenner MM, Stocker SD, Farquhar WB. “Increased Dietary Salt Augments the Exercise Pressor Reflex.” Experimental Biology. Orlando, FL. April 2019.
11. Migdal KU, Robinson AT, Watso JC, **Babcock MC**, Serrador JM, Farquhar WB. “The Influence of a High Sodium Meal on Cerebral Autoregulation.” Experimental Biology. Orlando, FL. April 2019.
12. Watso JC, **Babcock MC**, Robinson AT, Migdal KU, Wenner MM, Stocker SD Farquhar WB. “The Effect of Age on Blood Pressure Responses Following Short-term Water Restriction.” Experimental Biology. Orlando, FL. April 2019.
13. Robinson AT, **Babcock MC**, Watso JC, Migdal KU, Farquhar WB. “The Effect of Habitual Physical Activity on Sympathetic Vascular Transduction.” American Autonomic Society Annual Meeting. Newport Beach, CA. October 2018.
14. **Babcock MC**, Robinson AT, Watso JC, Migdal KU, Farquhar WB. “The Effects of High Dietary Sodium Intake on Blood Pressure Responses during Submaximal Aerobic Exercise.” American College of Sports Medicine- Integrative Physiology of Exercise. San Diego, CA. September 2018.
15. Migdal KU, Robinson AT, Watso JC, **Babcock MC**, Serrador JM, Farquhar WB. “The Influence of Acute Dietary Sodium on Peak Exercise Blood Pressure.” American College of Sports Medicine- Integrative Physiology of Exercise. San Diego, CA. September 2018.
16. Watso JC, Robinson AT, Migdal KU, **Babcock MC**, Stocker SD, Wenner MM, Farquhar WB. “Rapid Exercise Blood Pressure Responses During Mild Dehydration: Influence of

- Habitual Physical Activity.” American College of Sports Medicine- Integrative Physiology of Exercise. San Diego, CA. September 2018.
17. Robinson AT, Migdal KU, **Babcock MC**, Watso JC, Wenner MM, Stocker SD, Farquhar WB. “Physical Activity Modulates Blood Pressure Regulation during Controlled Low and High Salt Diets.” American College of Sports Medicine. Minneapolis, MN. May 2018.
  18. Watso JC, **Babcock MC**, Robinson AT, Migdal KU, Stocker SD, Wenner MM, Farquhar WB. “Blood Pressure Reactivity during Short-Term Water Restriction in Young Adults.” American College of Sports Medicine. Minneapolis, MN. May 2018.
  19. \***Babcock MC**, Robinson AT, Watso JC, Migdal KU, Wenner MM, Stocker SD, Farquhar WB. “Differential Sympathetic and RAAS Responses to a Low Sodium Diet.” Experimental Biology. San Diego, CA, April 2018.
  20. **Babcock MC**, Robinson AT, Watso JC, Migdal KU, Wenner MM, Stocker SD, Farquhar WB. “Differential Sympathetic and RAAS Responses to a Low Sodium Diet.” Cardiovascular Health Symposium. University of Delaware STAR Campus, Newark, DE. February, 2018.
  21. Watso JC, **Babcock MC**, Robinson AT, Migdal KU, Stocker SD, Wenner MM, Farquhar WB. “The Effect of Mild Hypohydration on Blood Pressure Regulation.” Cardiovascular Health Symposium. University of Delaware STAR Campus, Newark, Delaware. February, 2018.
  22. Migdal KU, Watso JC, **Babcock MC**, Robinson AT, Wenner MM, Stocker SD, Farquhar WB. “The Effect of Dietary Salt on Blood Pressure Regulation.” Cardiovascular Health Symposium. University of Delaware STAR Campus, Newark, Delaware. February, 2018.
  23. \***Babcock MC**, Robinson AT, Watso JC, Migdal KU, Wenner MM, Stocker SD, Farquhar WB. “Dietary Sodium and Resting Sympathetic Outflow.” Mid-Atlantic Regional Chapter of the American College of Sports Medicine Annual Meeting. Harrisburg, PA, November, 2017.
  24. \*Watso JC, **Babcock MC**, Robinson AT, Migdal KU, Wenner MM, Stocker SD, Farquhar WB. “Blood Pressure Reactivity During Short-term Water Restriction in Young Adults.” Mid-Atlantic Regional Chapter of the American College of Sports Medicine Annual Meeting. Harrisburg, PA, November, 2017.
  25. \*Migdal MU, Watso JC, **Babcock MC**, Robinson AT, Wenner MM, Stocker SD, Farquhar WB. “Effect of Dietary Salt Intake on Blood Pressure Variability.” Mid-Atlantic Regional Chapter of the American College of Sports Medicine Annual Meeting. Harrisburg, PA, November, 2017.
  26. \*Kaiser B, **Babcock MC**, Migdal MU, Robinson AT, Watso JC, Wenner MM, Edwards DG, Farquhar WB. “Effects of Dietary Sodium Intake on Ambulatory Central Blood Pressure.” Mid-Atlantic Regional Chapter of the American College of Sports Medicine Annual Meeting. Harrisburg, PA, November, 2017.
  27. Berube F, Brian, MS, **Babcock MC**, Watso JC, Wenner MM, Farquhar WB. “Cardiovascular Responses to Volume Loading in Healthy Men and Women During Exercise Pressor Reflex Activation.” New England Regional Chapter of the American College of Sports Medicine Annual Meeting. Providence, RI, October, 2017
  28. Watso JC, **Babcock MC**, Robinson AT, Migdal KU, Wenner MM, Stocker SD, Farquhar W. “Water Deprivation Does Not Enhance Pressor Responses to Handgrip Exercise in Humans or Sciatic Nerve Stimulation in Rats.” International Society for Autonomic Neuroscience. Nagoya, Japan. August, 2017.



29. **Babcock MC**, Watso JC Brian, MS, Edwards DG, Stocker SD, Wenner MM, Farquhar WB. "Acute and Chronic Increases in Sodium and Cardiac Vagal Baroreflex Sensitivity." Experimental Biology. Chicago, IL, April, 2017.
30. Watso JC, **Babcock MC**, Stocker SD, Wenner MM, Farquhar WB. "Blood Pressure Response to Isometric Exercise during Short-Term Water Restriction." Experimental Biology. Chicago, IL, April, 2017.
31. Lefferts WK, **Babcock MC**, Tiss, MJ, Brutsaert, TD, Heffernan KS "No sex differences in the cardiac response to acute normobaric hypoxia." American College of Sports Medicine Annual Meeting. Denver, CO, May, 2017.
32. \***Babcock MC**, Brian, MS, Robinson AT, Watso JC, Wenner MM, Farquhar WB. "Blood Pressure Responses to Metaboreflex Activation During Acute and Chronic Volume Loading." Mid-Atlantic Regional Chapter of the American College of Sports Medicine Annual Meeting. Harrisburg, PA, November, 2016.
33. \*Watso JC, **Babcock MC**, Ryan E, Wenner MM, Farquhar WB. "Blood Pressure Response to Exercise during Short-Term Water Restriction." Mid-Atlantic Regional Chapter of the American College of Sports Medicine Annual Meeting. Harrisburg, PA, November, 2016.
34. Lefferts WK, **Babcock MC**, Tiss MJ, White CN, Brutsaert TD, Heffernan KS "Effect of Hypoxia on Cognition and Neurovascular Coupling During Exercise." American College of Sports Medicine Annual Meeting. Boston, MA, June, 2016.
35. \***Babcock MC**, Lefferts WK, Heffernan KS "Acute effects of high-intensity exercise on peripheral conduit artery blood flow." Mid-Atlantic Regional Chapter of the American College of Sports Medicine Annual Meeting. Harrisburg, PA, November 2015.
36. **Babcock MC**, Lefferts WK, Heffernan KS, "Relation between exercise central hemodynamic load and resting cardiac structure and function in young men." American College of Sports Medicine Annual Meeting, San Diego. CA, May, 2015.
37. \***Babcock MC**, Lefferts WK, Heffernan KS "Relation between exercise central hemodynamic load and resting cardiac structure and function in young men." Mid-Atlantic Regional Chapter of the American College of Sports Medicine Annual Meeting. Harrisburg, PA, October, 2014.
38. **Babcock MC**, Leyer BK, Fitzgerald KL, Lefferts WK, Hughes WE, Redmond JG, Heffernan KS "No sex differences in carotid artery stiffness and blood flow pulsatility following high intensity exercise." American College of Sports Medicine Annual Meeting. Orlando, FL, May, 2014.
39. Fitzgerald KL, **Babcock MC**, Hughes WE, Lefferts WK, Leyer, BK, Redmond, JG, Heffernan KS "Aortic wave reflections are associated with anaerobic power production in young adults." American College of Sports Medicine Annual Meeting. Orlando, FL, May, 2014.
40. Redmond JG, **Babcock MC**, Leyer BK, Fitzgerald KL, Lefferts WK, Hughes WE, Heffernan KS "Effect of body composition on anaerobic power in Division I women's ice hockey players." American College of Sports Medicine Annual Meeting. Orlando, FL, May, 2014.
41. Kieffer HS, **Babcock MC**, Keen K, Mellinger K, Gotchel A, Peterman E. "The Effects of Compression Socks on Running Economy Following a Cycle-Run Transition." American College of Sports Medicine Annual Meeting. Denver, CO, 2011.
42. \***Babcock MC**, Keen K, Mellinger K, Gotchel A, Peterman E, Kieffer HS. "Comparison of physiological parameters following the bike-run in triathletes with and without

compression socks.” Sixth Annual Scholarship Symposium. Messiah College, Grantham, PA, April, 2010.

## MENTORING

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- Ryan Rosenberry (Postdoctoral Fellow, University of Colorado Anschutz Medical Campus)
- Lyndsey DuBose (Postdoctoral Fellow, University of Colorado Anschutz Medical Campus)
- Kira Steinke (MS Student, University of Colorado Anschutz Medical Campus)
- Kaleb Miles (MS Student, University of Colorado Anschutz Medical Campus)
- Elissa Hoopes, née Katulka (PhD Student, University of Delaware)
- Kamila Migdal (PhD Student, University of Delaware)
- Shane McGinty (PhD Student, University of Delaware)
- Brendan Kaiser (Undergraduate, University of Delaware)
- Erin Ryan (Undergraduate, University of Delaware)
- Matthew Tiss (Undergraduate, Syracuse University)

## PROFESSIONAL AFFILIATIONS

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American Autonomic Society, 2019-Present  
American Physiological Society, 2015-Present  
American Heart Association, 2016-Present  
American College of Sports Medicine, 2013-Present

## PROFESSIONAL SERVICE

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08/2023-present	Course Director, IPHY 7800, Integrative Physiology PhD Program
07/2023-present	Editorial Board, reviewing editor: Journal of Applied Physiology
06/2023	<i>Ad hoc</i> grant reviewer for K99 MOSAIC Grant Program, NIGMS
08/2022-present	Editorial Board, reviewing editor: Frontiers in Physiology; Exercise Physiology
01/2022-02/2022	Member, Search Committee for Program Manager (Committee Chair, Kerrie Moreau), University of Colorado Anschutz Medical Campus
09/2021-present	<i>Ad hoc</i> Reviewer for Experimental Physiology
12/2020-present	<i>Ad hoc</i> Reviewer for Journal of the American Medical Association
06/2020-present	<i>Ad hoc</i> Reviewer for Journal of the American Heart Association
03/2020-present	<i>Ad hoc</i> Reviewer for American Journal of Physiology – Regulatory, Integrative, and Comparative Physiology
03/2020-present	<i>Ad hoc</i> Reviewer for The Journal of Physiology
01/2020-present	<i>Ad hoc</i> Reviewer for Medicine and Science in Sports and Exercise
10/2019-present	<i>Ad hoc</i> Reviewer for American Journal of Physiology – Heart and Circulatory Physiology
04/2019	Judge for Undergraduate Poster Awards, Experimental Biology

05/2018

Judge for Concepts in Healthy Aging, University of Delaware  
KAAP440

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#### **COMMUNITY SERVICE**

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##### **Community Blood Pressure Screenings**

Christiana Mall, Christiana, DE, 2018

##### **Exercise Stress Testing**

Newark Police Department, Newark, DE, 2016

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#### **CONTINUING EDUCATION**

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##### **Metabolic Imaging Workshop**

NORC, University of Colorado Anschutz Medical Campus, Aurora, CO, 2022

##### **Protocol Development Workshop**

CTSA, University of Colorado Anschutz Medical Campus, Aurora, CO, 2022

##### **Electron Paramagnetic Resonance Spectroscopy Summer School**

International EPR Society/Shared EPR, Denver University, Denver, CO, 2019