

Ryan A. Harris, Ph.D., CEP, FACSM

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PERSONAL INFORMATION

Date of Birth: July 3, 1977

Place of Birth: Panorama City, California

Citizenship: United States

Marital Status: Married (Staci) with two daughters (Kaelyn and Alyson)

Hobbies: Golf, soccer, basketball, physical fitness/exercise, R/C cars and planes

EDUCATION

Doctor of Philosophy (Ph.D.) in Human Performance; Clinical Exercise Physiology
Indiana University, Bloomington, Indiana –

May 2007

*Dissertation: The Flow-Mediated Dilation Response to Acute Exercise
 In Overweight Men*

Advisor: Janet P. Wallace, Department of Kinesiology, Clinical Exercise Physiology

Master of Science (M.S.) Awarded in Kinesiology; Exercise Physiology
California State University Hayward, Hayward, California –

March 2002

Bachelor of Science (B.S.) Awarded in Kinesiology; Fitness, Nutrition,
 and Health San Diego State University, San Diego, California –

December 1999

EMPLOYMENT

Professor with Tenure, Augusta University

July 2020 – Present

Associate Professor with Tenure, Augusta University

July 2016 – June 2020

Associate Professor, Augusta University

July 2015 – June 2020

Professor, University of Ulster, Jordanstown, Northern Ireland

July 2013 – Present

Assistant Professor, Georgia Regents University

July 2009 – June 2015

Postdoctoral Research Fellow, University of California San Diego

July 2007 – June 2009

Associate Instructor, Indiana University

August 2003 – May 2007

Clinical Exercise Supervisor, Indiana University

August 2003 – December 2006

Owner/Developer, Bandercise Workout System

June 2003 – Present

www.Bandercise.com

Exercise Physiologist, Valley Care Health System

November 2000 – June 2003

Personal Fitness Consultant, Bally's Total Fitness

April 1997 – March 1999

RESEARCH INTERESTS / OBJECTIVES

My present research interests involve the interaction among oxidative stress, inflammation and endothelial dysfunction as they relate to cardiovascular disease. I am interested in the endothelium, a mono-layer of cells that lines all the blood vessels. Specifically, Flow-mediated dilation (FMD), a functional non-invasive bio-assay of endothelial function (a manifestation of cardiovascular disease) is measured in conjunction with various inflammatory and oxidative stress biomarkers in response to different systemic perturbations (i.e. exercise, high-fat meal, oral antioxidants, oral BH₄, etc). Endothelial dysfunction is observed in many clinical populations. Over the next several years, I plan to pursue research questions: 1) identifying the mechanisms of oxidative stress in various clinical populations (i.e., COPD, Obesity, and Diabetes), 2) investigating the cardio-protective role of estrogen following various perturbations (i.e. exercise, high-fat meal, antioxidant therapy, etc.), and 3) identifying an acceptable methodology of the traditional FMD test that will ultimately be embraced clinically.

UNIQUE RESEARCH SKILLS

- SPSS statistical program
- Ultrasonic measurement of endothelial function via flow-mediated dilation (FMD)
- Angiocath/venipuncture placement and blood draw
- EKG interpretation
- Ambulatory blood pressure monitoring
- Biochemical assay analysis
- Microdialysis
- Clinical exercise testing/interpretation

HONORS AND AWARDS

- 2017 MCG Exemplary Teaching Award, Augusta University
- 2015 Exemplary Teaching Award, Georgia Regents University
- 2014 Emerging Scientist Award, Georgia Regents Research Institute
- 2014 Outstanding Young Basic Science Faculty Award, Georgia Regents University
- 2012 Achieved Fellowship for the American College of Sports Medicine (FACSM)
- 2011 Clinical Science Young Investigator Award, American Physiological Society, CV section
- 2011 Outstanding Young Clinical Science Faculty Award, Georgia Health Sciences University

EDITORIAL BOARD APPOINTMENTS

- | | |
|--|-----------------|
| - Frontiers in Physiology – Vascular Physiology | November 2020 – |
| - Journal of Applied Physiology | July 2018 – |
| - Medicine and Science in Sports and Exercise (MSSE) | July 2013 – |
| - Journal of Sports Sciences (JSS) | February 2013 – |

STUDY SECTIONS, GRANT REVIEWER

- | | |
|---|---------------|
| -NIH Clinical and Integrative Cardiovascular Sciences Study Section | |
| -NIH P30 CF Center Special Emphasis Panel Grant Reviewer | November 2017 |
| -NASA Exercise and Cardiovascular Risk for Crew Panelist | March 2015 |
| -NIH P30 CF Center Special Emphasis Panel Grant Reviewer | November 2014 |

PROFESSIONAL COMMITTEE SERVICE

- | | |
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| -APS Cardiovascular Section Awards Committee | May 2013 – May 2016 |
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REFEREED PUBLISHED MANUSCRIPTS

1. Wilson, J, X. You, M. Ellis, D.S. Urquhart, L. Jha, M. Duncan, S. Tian, **R.A. Harris**, T. Kotsimbos, D. Keating. VO₂max as an exercise tolerance endpoint in people with cystic fibrosis: Lessons from a lumacaftor/ivacaftor trial. *Journal of Cystic Fibrosis*. In Press.
2. Saynor, Z.L., M. Gruet, P. Rodriguez-Miguel, **R.A. Harris**. Oxygen transport utilization during exercise in cystic fibrosis: Contributors to exercise intolerance. *Experimental Physiology*, In Press.
3. Rodriguez-Miguel, P., N. Lee, H. Ishii, R. Crandall, K.T. McKie, C. Forseen, **R.A. Harris**. Exercise intolerance in cystic fibrosis: Importance of skeletal muscle. *Medicine and Science in Sports and Exercise*. In Press. ***Corresponding Author**
4. Rodriguez-Miguel, P., J.L. Looney, J. Thomas, G. Harshfield, J.S. Pollock, **R.A. Harris**. Sirt1 during childhood is associated with microvascular dysfunction later in life. *American Journal of Physiology – Heart and Circulatory Physiology*. 318: H1371-H1378, 2020. ***Corresponding Author**
5. Davis, C.L., S.E. Litwin, N.K. Pollock, J.L. Waller, H. Zhu, Y. Dong, G. Kapuku, J. Bhagatwala, **R.A. Harris**, J.L. Looney, C.F. Williams, A. Armento, M.D. Schmidt, R. Bassali. Exercise effects on arterial stiffness and heart health in children with excess weight: The SMART RCT. *International Journal of Obesity*, 44(5): 1152 – 1163, 2020.
6. Blanks, A.M., P. Rodriguez-Miguel, J. Looney, M.A. Tucker, J. Jeong, J. Thomas, M. Blackburn, D.W. Stepp, N.J. Weintraub, **R.A. Harris**. Whole body vibration elicits differential immune and metabolic responses in Obese and Normal Weight individuals. *Brain, Behavior, & Immunity Health*. Vol 1 100011, 2020. ***Corresponding Author**
7. Rodriguez-Miguel, P., H. Ishii, N. Seigler, R. Crandall, J. Thomas, C. Forseen, K.T. McKie, **R.A. Harris**. Sildenafil improves exercise capacity in patients with cystic fibrosis: A Proof of Concept Clinical Trial. *Therapeutic Advances in Chronic Disease*. 10: 1-13, 2019. ***Corresponding Author**
8. Jeong, J.H., H. Zhu, **R.A. Harris**, Y. Dong, S. Su, M.S. Tinggen, G. Kapuku, J.S. Pollock, D.M. Pollock, G.A. Harshfield, X. Wang. Ethnic Differences in Nighttime Melatonin and Nighttime Blood Pressure: A Study in European Americans and African Americans. *American Journal of Hypertension*, 32(10): 968-974, 2019.
9. Derella, C.C., N. Lee, R. Crandall, M. Blackburn, J. Looney, A. Mangieri, P. Rodriguez-Miguel, M.A. Tucker, **R.A. Harris**. Assessment of endothelial function is reproducible in patients with cystic fibrosis. *Journal of Cystic Fibrosis*, 18: 772-777, 2019. ***Corresponding Author**
10. Jeong, J.H., C. Hanevold, **R.A. Harris**, G. Kapuku, J.S. Pollock, D.M. Pollock, G.A. Harshfield. Angiotensin II receptor blocker attenuates stress pressor response in young adult African Americans. *Journal of Clinical Hypertension*, 21: 1191-1199, 2019.
11. Tucker, M.A., B. Fox, N. Seigler, P. Rodriguez-Miguel, J. Looney, J. Thomas, K.T. McKie, C. Forseen, G.W. Davison, **R.A. Harris**. Endothelial dysfunction in cystic fibrosis: Role of Oxidative Stress. *Oxidative Medicine and Cellular Longevity*. Article ID 1629638, 2019 ***Corresponding Author**
12. Kapuku, G., S. Ghosh, V. Doshi, P. Hall, W. Strong, F. Treiber, D. Pollock, **R. A. Harris**, J. Halbert, G. Harshfield, V. George. The Augusta Heart Study. *Journal of Environment and Health Science*. 5(1): 15-23, 2019.
13. Jeong, J., N. Lee, M.A. Tucker, P. Rodriguez-Miguel, J. Looney, J. Thomas, C.C. Derella, A. El-Marakby, J. Musall, J.C. Sullivan, K.T. McKie, C. Forseen, G.W. Davison, **R.A. Harris**. Tetrahydrobiopterin Improves Endothelial Function in Patients with Cystic Fibrosis. *Journal of Applied Physiology*. 126: 60-66, 2019. ***Corresponding Author**
14. Tucker, M.A., N. Seigler, P. Rodriguez-Miguel, J. Looney, R.H. Crandall, C. Forseen, K.T. McKie, **R.A. Harris**. Exercise testing in patients with cystic fibrosis – Importance of ventilatory

- parameters. *European Journal of Applied Physiology*. 119: 227-234, 2019. ***Corresponding Author**
15. Hao, G., N. Pollock, **R.A. Harris**, B. Gutin, S. Su, X. Wang. Associations between muscle mass, physical activity, and dietary behavior in adolescents. *Pediatric Obesity*. 14: e12471, 2019
 16. Rodriguez-Miguel, P., N. Lee, M.A. Tucker, G. Csanyi, K.T. McKie, C. Forseen, **R.A. Harris**. Sildenafil improves vascular endothelial function in patients with cystic fibrosis. *American Journal of Physiology – Heart and Circulatory Physiology*. 315: H1486-H1494, 2018. ***Corresponding Author**
 17. Rodriguez-Miguel, P., J. Gregg, N. Lee, L. Bass, J. Thomas, J.S. Pollock, J.C. Sullivan, T. Dillard, **R.A. Harris**. Acute tetrahydrobiopterin improves endothelial function in patients with COPD. *Chest*. 154(3): 597-606, 2018. ***Corresponding Author**
 18. Beveridge, L.A., F. Khan, A.D. Struthers, J. Armitage, I. Barchetta, I. Bressendorff, M.G. Cavallo, R. Clarke, R. Dalan, G. Dreyer, A.D. Gepner, N.G. Forouhi, **R.A. Harris**, G.A. Hitman, T. Larsen, R. Khadgawat, P. Marckmann, G.H. Mose, S. Pilz, A. Scholze, M. Shargorodsky, S.I. Sokol, H. Stricker, C. Zoccali, M.D. Witham. Effect of vitamin D supplementation on markers of vascular function – a systematic review and individual participant meta-analysis. *Journal of the American Heart Association*. 7(11): 2018.
 19. Ray, S.C., B. Baban, M.A. Tucker, A.J. Seaton, K.C. Chang¹, E. Mannon¹, J. Sun, B. Patel¹, K. Wilson, J. Musall, H. Ocasio, D. Irsik, J. Filosa¹, J.C. Sullivan, **R.A. Harris**, P.M. O’Connor. Oral NaHCO₃ activates the anti-inflammatory reflex via fragile connections to the splenic mesothelium. *The Journal of Immunology*. 200(10): 3568-3586, 2018.
 20. Benson, T.W., N.L. Weintraub, H.W. Kim, N. Seigler, S. Kumar, J. Pye, T. Horimatsu, R. Pellenberg, D.W. Stepp, R. Lucas, V.Y. Bogdanov, S.E. Litwin, J.E. Brittain, **R.A. Harris**. A single high fat meal provokes pathological erythrocyte remodeling and increases myeloperoxidase levels: Implications for acute coronary syndrome. *Laboratory Investigation*. 98(10): 1300-1310, 2018.
 21. Radtke, T. H. Hebestreit, S. Gallati, J.E. Schneiderman, D. Stevens, E.H.J. Hulzebos, T. Takken, S.R. Boas, D.S. Urquhart, L.C. Lands, S. Tejero, A. Sovtic, T. Dwyer, M. Petrovic, **R.A. Harris**, C. Karila, D. Savi, J. Usemann, M. Mei-Zahav, E. Hatzigorou, F. Ratjen, S. Kriemler, for the CFTR-Exercise study group. CFTR genotype and aerobic exercise capacity in cystic fibrosis: A cross-sectional study. *Annals of the American Thoracic Society*. 15(2): 209-216, 2018.
 22. Tucker, M.A., Berry, B., N. Seigler, G.W. Davison, J.C. Quindry, D. Eidson, K.T. McKie, **R.A. Harris**. Blood flow regulation and oxidative stress during submaximal cycling exercise in patients with cystic fibrosis. *Journal of Cystic Fibrosis*. 17(2): 256-263, 2018. ***Corresponding Author**
 23. Tucker, M.A., R. Crandall, N. Seigler, P. Rodriguez-Miguel, K.T. McKie, C. Forseen, J. Thomas, **R.A. Harris**. A single bout of maximal exercise improves lung function in patients with cystic fibrosis. *Journal of Cystic Fibrosis*. 16(6): 752-758, 2017. ***Corresponding Author**
 24. Van Brackle, C. **R.A. Harris**, K.M. Hallow. Exposure-response modeling of flow-mediated dilation provides an unbiased and informative measure of endothelial function. *Journal of Applied Physiology*. 122(5): 1292-1303, 2017.
 25. Rodriguez-Miguel, P., M.L. Erickson, K.K. McCully, **R.A. Harris**. Rebuttal to Skeletal muscle oxidative capacity is not altered in cystic fibrosis patients. *Journal of Physiology*. 595(5):1429, 2017. ***Corresponding Author**
 26. Rodriguez-Miguel, P., M.L. Erickson, K.K. McCully, **R.A. Harris**. CrossTalk proposal: Skeletal muscle oxidative capacity is altered in patients with cystic fibrosis. *J Physiol*. 595(5): 1423-1425, 2017. ***Corresponding Author**
 27. Shah, Y, L. Bass, G.W. Davison, N. Seigler, J.S. Pollock, J. Thomas, **R.A. Harris**. BH4 improves postprandial endothelial function following a high-fat meal in man and post-menopausal women. *Menopause*. 24(5): 555-562, 2017. ***Corresponding Author**

28. Thom, N.J., A.R. Early, B. Hunt, **R.A. Harris**, M.P. Herring. Eating and endothelial function: A meta-analysis of the acute effects of meal consumption on flow-mediated dilation. *Obesity Reviews*. 17: 1080-1090, 2016.
29. Rodriguez-Miguel, P., J. Thomas, N. Seigler, R. Crandall, K.T. McKie, C. Forseen, **R.A. Harris**. Evidence of microvascular dysfunction in patients with cystic fibrosis. *American Journal of Physiology-Heart and Circulatory Physiology*. 310: H1479-H1485, 2016. ***Corresponding Author**
30. Rodriguez-Miguel, P., N. Seigler, **R.A. Harris**. Ultrasound assessment of endothelial function: a technical guideline of the flow-mediated dilation test. *Journal of Visualized Experiments*. Video 54011, 2016. <http://www.jove.com/video/54011/ultrasound-assessment-endothelial-function-technical-guideline-flow> ***Invited Manuscript and Corresponding Author**
31. Rodriguez-Miguel, P., N. Seigler, L. Bass, T. Dillard, **R.A. Harris**. Assessments of endothelial function and arterial stiffness are reproducible in patients with chronic obstructive pulmonary disease. *International Journal of Chronic Obstructive Pulmonary Disease*. 10: 1977-1986, 2015. ***Corresponding Author**
32. McClean, C., **R.A. Harris**, M. Brown, J.C. Brown, G. Davison. Effects of exercise intensity on post exercise endothelial function and oxidative stress. *Oxidative Medicine and Cellular Longevity*. Article ID 723679, 2015.
33. Erickson, M. L., N. Seigler, K.T. McKie, K.K McCully, **R.A. Harris**. Skeletal Muscle Oxidative Capacity in Patients with Cystic Fibrosis. *Experimental Physiology*. 100.5: 545-552, 2015. ***Corresponding Author and Editors Choice**
34. Fielding, J., L. Brantley, N. Seigler, K.T. McKie, G.W. Davison, **R.A. Harris**. Oxygen uptake kinetics and exercise capacity in children with cystic fibrosis. *Pediatric Pulmonology*. 50(7): 647-654, 2015. ***Corresponding Author**
35. Sullivan, J.C., Rodriguez-Miguel, P., M. Zimmerman, **R.A. Harris**. Differences in Angiotensin (1-7) between men and women. *American Journal of Physiology – Heart and Circulatory Physiology*. 308: H1171- H 1176, 2015. ***Corresponding Author**
36. Roberts, C.K., M.M. Lee, S.L. Krell, M. Katiraie, M.L. Chronley, C.S. Oh, V. Ribas, **R.A. Harris**, A.L. Hevener, D.M. Croymans. Strength fitness and body weight status on markers of cardiometabolic health. *Medicine and Science in Sports and Exercise*. 47(6): 1211-1218, 2015. ***Editors Choice**
37. Fox, B.M., L. Brantley, C. White, N. Seigler, **R.A. Harris**. Association between resting heart rate, shear and flow-mediated dilation in healthy adults. *Experimental Physiology*. 99(10): 1439-1448, 2014. ***Corresponding Author**
38. Zimmerman, M., **R.A. Harris**, J.C. Sullivan. Female Spontaneously Hypertensive Rats Are More Dependent on Ang (1-7) to Mediate Effects of Low Dose AT₁ Receptor Blockade than Males. *American Journal of Physiology: Renal Physiology*. 306(10): F1136-1142, 2014.
39. Ives, S.J*, **R.A. Harris***, M.A Witman, A.S Fjeldstad, R.S. Garten, J. McDaniel, D.W. Wray, R.S. Richardson. Vascular Dysfunction and chronic obstructive pulmonary disease: The role of redox balance. *Hypertension*. 63(3): 459-467, 2014.
40. Bhagatwala, J., **R.A. Harris**, S.J. Parikh, H. Zhu, Y. Huang, I. Kotak, N. Seigler, G.L. Pierce, B.M. Egan, Y. Dong. The epithelial sodium channel inhibition by amiloride on blood pressure and cardiovascular disease risk in prehypertensives. *Journal of Clinical Hypertension*. 16(1): 47-53, 2014.
41. Croymans, D.M., S. Krell, C. Oh, M. Katiraie, C. Lam, **R.A. Harris**, C.K. Roberts. Effects of resistance training on central blood pressure in obese young men. *Journal of Human Hypertension*. 28(3): 157-164, 2014.

42. McDaniel, J, W. Askew, D. Bennett, J. Mihalopoulos, S. Anantharaman, A.S. Fjeldstad, D.C. Rule, N.M. Nanjee, **R.A. Harris**, R.S. Richardson. Bison meat has a lower atherogenic risk than beef in healthy men. *Nutrition Research*. 33(4) 293-302, 2013.
43. Poore, S., B. Berry, D. Eidson, K.T. McKie, **R.A. Harris**. Evidence of vascular endothelial dysfunction in young patients with cystic fibrosis. *Chest*. 143(4):939-945, 2013. ***Corresponding Author**
44. Wray, D.W., S.K. Nishiyama, **R.A. Harris**, J. Zhao, J. McDaniel, A.S. Fjeldstad, M.A.H. Witman, S.J. Ives, Z. Barrett-O'Keefe, and R.S. Richardson. Acute Reversal of Endothelial Dysfunction in the Elderly Following Antioxidant Consumption. *Hypertension*. 59(4): 818-824, 2012.
45. **Harris, R.A.**, V. Tedjasaputra, J. Zhao, R.S. Richardson. Premenopausal women exhibit an inherent protection of endothelial function following a high-fat meal. *Reproductive Sciences*. 19(2): 221-228, 2012. ***Corresponding Author**
46. Gutin, B, **R.A Harris**, C.A. Howe, M.H Johnson, H. Zhu, Y. Dong. Cardiometabolic biomarkers in young black girls: Relations to body fatness and aerobic fitness following a randomized physical activity trial. *International Journal of Pediatrics*. 2011 ID 219268, 2011.
47. Johnson, B.D., J Padilla, **R.A. Harris**, J.P. Wallace. Vascular consequences of a high-fat meal in physically active and inactive adults. *Applied Physiology, Nutrition, and Metabolism*. 36(3): 368-375, 2011.
48. **Harris, R.A.**, J. Pedersen-white, D. Guo, I.S. Stallmann-Jorgensen, D. Keeton, Y. Huang, Y. Shah, H. Zhu, Y. Dong. Vitamin D₃ supplementation for 16 weeks improves flow-mediated dilation in overweight African American adults. *American Journal of Hypertension*. 24(5): 557-562, 2011.
49. Thijssen, D.H.J., M.A. Black, K.E. Pyke, J. Padilla, G. Atkinson, **R.A. Harris**, B. Parker, M.E. Widlansky, M.E. Tschakovsky, D.J. Green. Assessment of flow mediated dilation (FMD) in humans: A methodological and physiological guideline. *American Journal of Physiology: Heart and Circulatory Physiology*. 300:H2-H12, 2011.
50. Howe, C.A., **R.A. Harris**, B Gutin. A 10-month physical activity intervention improves body composition in young black boys. *Journal of Obesity*. 2011 ID 358581, 2011.
51. Dong, Y., I.S. Stallmann-Jorgensen, N.K. Pollock, **R.A. Harris**, D. Keeton, Y. Huang, K. Li, R. Bassali, D. Guo, J. Thomas, G.L. Pierce, J. White, M.F. Holick, H. Zhu. A 16-week randomized clinical trial of 2,000 IU daily vitamin D₃ supplementation in black youth: 25 hydroxyvitamin D, adiposity, and arterial stiffness. *Journal of Clinical Endocrinology & Metabolism*. 95(10): 4584-4591, 2010.
52. **Harris, R.A.**, S.K. Nishiyama, D.W. Wray, R.S. Richardson. Ultrasound assessment of flow-mediated dilation. *Hypertension*. 55: 1075-1085, 2010. ***Corresponding Author**
53. **Harris, R.A.**, S.K. Nishiyama, D.W. Wray, V Tedjasaputra, D.M. Bailey, R.S. Richardson. The effects of oral antioxidants on brachial artery flow-mediated dilation following 5 and 10 minutes of ischemia. *European Journal of Applied Physiology*. 107: 445-453, 2009. ***Corresponding Author**
54. Wray, D.W., S. Nishiyama, **R.A. Harris**, R.S. Richardson. Angiotensin-II in the elderly: Impact of angiotensin II Type 1 receptor sensitivity on peripheral hemodynamics. *Hypertension*. 51(6): 1611-1616, 2008.
55. Padilla, J., **Harris R.A.**, Rink L.D., Wallace JP. Characterization of the brachial artery shear stress following walking exercise. *Vascular Medicine*. 13: 105-111, 2008.
56. **Harris, R.A.**, J. Padilla, K.P. Hanlon, L.D. Rink, J.P. Wallace. The flow-mediated dilation response to acute exercise in overweight active and inactive men. *Obesity* 16: 578-584, 2008. ***Corresponding Author**
57. Padilla, J., **Harris R.A.**, Wallace JP. Can the measurement of brachial artery flow-mediated dilation be applied to the acute exercise model? *Cardiovascular Ultrasound*. 5: 1-7, 2007

58. **Harris, R.A.**, J. Padilla, L.D. Rink, J.P. Wallace. Reproducibility of the Flow-Mediated Dilation Response to Acute Exercise in Overweight Men. *Ultrasound in Medicine and Biology*. 33(10): 1579-1585, 2007. ***Corresponding Author**
59. **Harris, R.A.**, D. Koceja. Comparison of electrically and mechanically induced H-reflex depression. *Electromyography and Clinical Neurophysiology*. 46: 413-419, 2006. ***Corresponding Author**
60. Padilla, J., **R.A. Harris**, A.D. Fly, L.D. Rink, J.P. Wallace. The effect of acute exercise on endothelial function following a high-fat meal. *European Journal of Applied Physiology*. 98(3): 256-262, 2006.
61. Padilla, J., **R.A. Harris**, A.D. Fly, L.D. Rink, J.P. Wallace. A comparison between active and reactive hyperaemia induced brachial artery vasodilation. *Clinical Science*. 110(3): 387-392, 2006.
62. **Harris, R.A.**, J. Padilla, L. D. Rink, J.P. Wallace. Variability of flow mediated dilation measurements with reactive hyperemia. *Vascular Medicine*. 11(1):1-6, 2006. ***Corresponding Author**

NON-DATA BASED REFEREED PUBLISHED MANUSCRIPTS

1. Wray, D.W., S.K. Nishiyama, **R.A. Harris**, J. Zhao, J. McDaniel, A.S. Fjeldstad, M.A.H. Witman, S.J. Ives, Z. Barrett-O'Keefe, and R.S. Richardson. Response to antioxidants and endothelial dysfunction in young and elderly people: Is flow-mediated dilation useful to assess acute effects? *Hypertension*. 60: e6-e7, 2012.
2. Thijssen, D.H.J., M.A. Black, K.E. Pyke, J. Padilla, G. Atkinson, **R.A. Harris**, B. Parker, M.E. Widlansky, M.E. Tschakovsky, D.J. Green. Reply to "Letter to the editor" Assessment of flow mediated dilation (FMD) in humans: A methodological and physiological guideline. *American Journal of Physiology: Heart and Circulatory Physiology*. 300:H713, 2011.
3. **Harris, R.A.** FMD, reproducibility, and acute exercise in the obese: Are the results confounded? *European Journal of Applied Physiology*. 109(2):357, 2010. ***Corresponding Author**
4. **Harris, R.A.** Flow-Mediated Dilation After Acute Exercise: Interpret With Caution. *Journal of Strength and Conditioning Research*. 22(5), 2008. ***Corresponding Author**
5. **Harris, R.A.**, J. Padilla. Proper Normalization of Flow-Mediated Dilation for Shear. *Journal of Applied Physiology*. 103: 2007. ***Corresponding Author**
6. **Harris, R.A.**, J. Padilla. Endothelial dependent dilation and long-term exercise training. *Medicine and Science in Sports and Exercise*. 38(7):1362, 2006. ***Corresponding Author**

COMPETITIVE PUBLISHED ABSTRACTS

1. Jeong, J., C. Hanevold, **R.A. Harris**, G. Harshfield. Stress-induced salt sensitivity is modulated by angiotensin II. *Journal of the Federation of American Societies for Experimental Biology*. 31: 860.4, 2018.
2. Tucker, M.A., J. Looney, M. Blackburn, J.S. Pollock, D.M. Pollock, **R.A. Harris**. Hemodynamic hyper-reactivity to acute stress in individuals reporting adversity during childhood: Role of Endothelin. *Journal of the Federation of American Societies for Experimental Biology*. 31: 860.4, 2018.
3. Rodriguez-Miguel P., J. Looney, J. Thomas, J.S. Pollock, **R.A. Harris**. Resveratrol improves microvascular function in adults who reported adverse childhood events. *Journal of the Federation of American Societies for Experimental Biology*. 31: 860.4, 2018.
4. Gonzalez, V., N. Seigler, R. Crandall, K.T. McKie, C. Forseen, P. Rodriguez-Miguel, M.A. Tucker, **R.A. Harris**. Acute sildenafil treatment improves exercise capacity in patients with cystic fibrosis. *Journal of the Federation of American Societies for Experimental Biology*. 31: 860.4, 2018.

5. Rodriguez-Miguel P., G. Csyani, N. Seigler, A. Mangierie, K.T. McKie, C. Forseen, **R.A. Harris**. Sildenafil treatment in patients with cystic fibrosis: The role of NOS3 phosphorylation. *Pediatric Pulmonology*. Volume 52, Supplement 47:268, 2017.
6. Tucker, M.A., N. Seigler, P. Rodriguez-Miguel, K.T. McKie, C. Forseen, R.H. Crandall, **R.A. Harris**. Sildenafil treatment in patients with cystic fibrosis: The role of NOS3 phosphorylation. *Pediatric Pulmonology*. Volume 52, Supplement 47:464, 2017.
7. Tucker, M.A., N. Seigler, K.T. McKie, C. Forseen, R.H. Crandall, **R.A. Harris**. Relationship between vascular health and maximal exercise capacity following sildenafil treatment in cystic fibrosis. *Medicine and Science in Sports and Exercise*. 49(5):S1046, 2017.
8. Rodriguez-Miguel P., N. Seigler, R.H Crandall, D. Eidson, K.T. McKie, C. Forseen, **R.A. Harris**. Exercise capacity in cystic fibrosis: Changes in C-reactive protein matter. *Medicine and Science in Sports and Exercise*. 49(5):S1044, 2017.
9. Hallow, K.M., C.H. VanBrackle, **R.A. Harris**. Validation of exposure-response modeling of flow-mediated dilation as a less biased and more informative measure of endothelial function. *Journal of the Federation of American Societies for Experimental Biology*. 31: 860.4, 2017.
10. Tucker, M.A., J. Looney, M. Lyon, L.C. Layman, D.M. Pollock, **R.A. Harris**. Effect of arterial stiffness on hemodynamic responses to the cold pressor test in men and women. *Journal of the Federation of American Societies for Experimental Biology*. 31:847.11, 2017.
11. Rodriguez-Miguel P., A., J. Looney, M. Blackburn, J. Thomas, J.S. Pollock, **R.A. Harris**. Endothelial function and antioxidant capacity are impaired in adults who reported adverse childhood events. *Journal of the Federation of American Societies for Experimental Biology*. 31: 837.19, 2017.
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64. Padilla, J., **R.A. Harris**, and J. P. Wallace. Variation of flow-mediated dilation during morning hours. *Medicine and Science in Sports and Exercise*. 37(5):S221, 2005.
65. **Harris, R.A.**, Padilla, J., Park, S., Wallace, J.P. Blood pressure reduction following physical activity: A case study approach. *Medicine and Science in Sports and Exercise*. 36(5):S251, 2004.
66. Padilla, J. Park, S., **Harris, R.A.**, Wallace, J.P. Ambulatory blood pressure response following free-living physical activity in pre- and hypertensive adults. *Medicine and Science in Sports and Exercise*. 36(5):S251, 2004.
67. Wallace, J.P. Padilla, J., Park, S., **Harris, R.A.** What is the adherence to free-living physical activity? *Medicine and Science in Sports and Exercise*. 36(5):S64, 2004.

INVITED PRESENTATIONS

R.A. Harris. Vascular Dysfunction and Exercise Intolerance in Cystic Fibrosis: Is there a Link? Emory Center for Cystic Fibrosis and Airways Disease, February 2019.

R.A. Harris. CF and Exercise: Literature Review of the Past Year. North American Cystic Fibrosis Conference Exercise Symposium, October 2018.

R.A. Harris. Assessment and Interpretation of Exercise Capacity in the Laboratory. Pediatric Allergy and Immunology Seminar, January 2017.

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- R.A. Harris.** Assessment and Interpretation of Exercise Capacity in the Laboratory. North American Cystic Fibrosis Conference Exercise Symposium, October 2016.
- R.A. Harris.** Vascular function testing: Use of pharmacological and non-pharmacological interventions in humans. Augusta University Neurology Grand Rounds, October 2016.
- R.A. Harris.** Vascular Dysfunction & Exercise Intolerance in Cystic Fibrosis: Is there a link? Augusta University Cardiovascular Service Line Grand Rounds, February 2016.
- R.A. Harris.** Vascular Dysfunction & Exercise Intolerance in Cystic Fibrosis: Is there a link? Augusta University Vascular Biology Center, January 2016.
- R.A. Harris.** Vascular Dysfunction & Exercise Intolerance in Cystic Fibrosis: Is there a link? University of Louisville, January 2016.
- R.A. Harris and M. Bowman.** Exercise testing interpretation & implementing an exercise prescription. NACFC, Phoenix, October 2015.
- R.A. Harris.** Insight into exercise intolerance in cystic fibrosis. Vertex Advisory Board, August 2015.
- R.A. Harris.** Impact of blood vessel function on exercise capacity in cystic fibrosis. University of Pittsburgh Vascular Medicine Institute, October 2014.
- R.A. Harris.** Flow-mediated dilation 101. Sickle Cell Center Seminar Series. Georgia Regents University, February 2014.
- R.A. Harris.** Utility of endothelial function testing in patients with COPD: A mechanistic approach. Department of Medicine Seminar Series. Georgia Regents University, November 2013.
- R.A. Harris and B. Fox.** Predicting the efficacy of rehabilitation in CHF: The future starts now! Cardiology Research in Progress Conference. Georgia Regents University, September 2013.
- R.A. Harris.** Impact of blood vessel function on exercise capacity in cystic fibrosis. University of Georgia, Athens GA. March 2013.
- Fox, B. and **R.A. Harris.** Oral antioxidants improve endothelial function in patients with cystic fibrosis. Southern Society for Pediatric Research, New Orleans, LA February 2013.
- Harris, R.A.** Regulation of Nitric Oxide Bioavailability in COPD, CF and Postmenopausal Women. BioMarin Investigator Sponsored Trial Investigator Meeting, Berkley, CA October 2012.
- Harris, R.A.** Inflammation and oxidative stress during exercise in patients with cystic fibrosis. 26th Annual North American Cystic Fibrosis Conference, Orlando, FL. October 2012.
- Harris, R.A.** Postprandial Endothelial Function: Are Women Protected? 3rd Annual GHSU Go Red for Women Symposium. Augusta, Ga. February 2012
- Harris, R.A.** Lung, Vascular and Exercise Function in Cystic Fibrosis. North American Cystic Fibrosis Conference, Anaheim, CA. November 2011.

Harris, R.A. Angiotensin peptides and FMD: Does sex matter? APS Gender Disparities Conference, Jackson MS. October 2011.

Harris, R.A. Flow-mediated dilation 101. The University of Ulster, Jordanstown Northern Ireland. February 2011.

Harris, R.A. The effect of Pulmonary Disease on Endothelial Function at Rest and During Exercise. Pulmonary and Critical Care Medicine Grand Rounds, MCG. January 2011.

Harris, R.A. Regulation of Nitric Oxide Bioavailability in Chronic Obstructive Pulmonary Disease: A Mechanistic Approach. BioMarin Investigator Sponsored Trial Investigator Meeting, Seattle, WA. October 2010.

Harris, R.A. Estrogen and Vascular Function: Is E₂ Protective Against a High-Fat Meal Insult? Medical College of Georgia, Vascular Biology Center. November 2009.

Harris, R.A. The Utility of Flow-Mediated Dilation: A Functional Assay of Vascular Function and Nitric Oxide Bioavailability. Medical College of Georgia, Georgia Prevention Institute. February 2009.

Harris, R.A. Vascular Function Through Technology: How Healthy Are Your Arteries? Riford Center, La Jolla, California. September 2008.

Harris, R.A. Arterial Health and Exercise. *Kiwanis Club of Bloomington*. Bloomington, Indiana. September 2006.

Harris, R.A. Research Grant Winners Symposium. *Graduate and Professional Student Organization*. Indiana University, Indiana. February 2006.

Harris, R.A. Wellness Related Stress Management Break Out Sessions. *Cornerstone Information Systems*. Stone Mountain, Georgia. November 2004.

Harris, R.A. COPD and Exercise. Better Breathers of San Diego. San Diego, California. September 2007

Harris, R.A. The Influence of Diet and Exercise on Endothelial Function: A Series of Investigations. University of California, San Diego. La Jolla, California. March 2007.

Harris, R.A. The Influence of Diet and Exercise on Endothelial Function: A Series of Investigations. The Scripps Research Institute. La Jolla, California. November 2006.

UNDERGRADUATE/ GRADUATE STUDENTS/AWARDS

Trainee/Awards

Sinead O'Bryant (BS)

Yanna Tian (PhD)

Casey Derella (PhD)

- Caroline Tum Suden EB Travel Award (2019)

Institution

Augusta University Honors Program, Prospectus Advisor 2018-

Augusta University, Dissertation Committee 2019-

Augusta University, Dissertation Advisor 2018-

Huiping Lin (PhD)	Augusta University, Dissertation Committee 2018-
Diviya Agarwal (BS)	Undergraduate student, STAR program
<ul style="list-style-type: none"> • 2017 –STAR first author abstract Presentation 	
Brook Pace (BS)	Undergraduate student, STAR Program
<ul style="list-style-type: none"> • 2017 –STAR first author abstract Presentation 	
Kirsten Hennen	Augusta University Undergrad Summer Research Scholar 2015
Kenneth Holley	Augusta University Undergrad Summer Research Scholar 2013
Tessa Daniel	Augusta University Undergrad Summer Research Scholar 2013
Jeremy Fielding (Masters)	Augusta University, 2012-2014
Ricki McDonald	Augusta University Undergrad research practicum 2010
Brett Gunn (Masters)	Augusta University, 2009-2011
<ul style="list-style-type: none"> • GHSU Physiology Award for Excellence in Research 	

MEDICAL STUDENTS MENTORED AND ACCOMPLISHMENTS

Medical Students

- Brooke Pace (First year medical student, 2019 – AU research day first author abstract Presentation)
- Shaun Goh (First year medical student, 2018 – AU research day first author abstract Presentation)
- Vincent Gonzalez (First year medical student, 2017 – AU research day first author abstract Presentation, 2017 Experimental Biology Poster Presentation)
- Faysal Akbik (First year medical student, 2016 – AU research day first author abstract Presentation)
- Brandon White (First year medical student, 2016 – AU research day first author abstract Presentation)
- Ryan Brandt (First year medical student, 2015 – GRU research day first author abstract Presentation)
- Haruki Ishii (First year medical student, 2015 – GRU research day first author abstract Presentation)
- Roberto Alva-Ruiz (First year medical student, 2015 – GRU research day first author abstract Presentation)
- Maggie Snyder (Pre-matriculate medical student, 2015 – GRU research day first author abstract Presentation)
- Howell Jarrard (First year medical student, 2014 – GRU research day first author abstract Presentation, EB first author Slide Presentation and Poster Presentation)
- Lindsey Haack (First year medical student, 2014 – GRU research day first author abstract presentation)
- Katherine Downey (First year medical student, 2013 – GRU research day first author abstract presentation)
- Brandon Fox (First year medical student, 2012 – GHSU research day first author abstract presentation, selected to present at Southern Society for Pediatric Research (SSPR) conference, New Orleans 2012)
- Claire White (First year medical student, 2012 – GHSU research day first author abstract presentation)
- Lucy Brantley (First year medical student, 2012 – GHSU research day first author abstract presentation)
- Breana Berry (First year medical student, 2011 – GHSU research day first author abstract

presentation)

- Spencer Poore (First year medical student, 2011 – GHSU research day first author abstract Presentation, published first author paper)
- Yashesh Shah (Pre-matriculate and first year medical student 2010, 2011 – GHSU research day first author abstract presentation, published co-author paper)

POST-DOCTORAL FELLOWS/AWARDS

Trainee/Awards	Years	Present Position
Moon Hyon-Huang, PhD	8/2014 – 7/2015	Icheon National University
Paula Rodriguez-Miguel, PhD	6/2014 – 8/2018	Virginia Commonwealth University
<ul style="list-style-type: none"> • American Heart Career Development Award (2018) • American Heart Post-doctoral Fellowship (2016) • AHA Research Leaders Academy • Jack Wilmore ACSM Travel Award (2016) • Award for Excellence in Research by Postdoctoral Fellow (2015) • Valedictorian Award Phlebotomy 		
Mathew Tucker, PhD	4/2016 – 1/2019	Teva Pharmaceuticals
<ul style="list-style-type: none"> • Jack Wilmore ACSM Travel Award (2018) • American Heart Post-doctoral Fellowship (2018) 		
Jinny Jeong, PhD	9/2017 – Present	
<ul style="list-style-type: none"> • Jack Wilmore ACSM Travel Award (2018) 		
Anson Blanks, PhD	9/2018 – Present	
<ul style="list-style-type: none"> • Caroline Tum Suden EB Travel Award (2019) • APS/Frank Diversity Travel Award (2019) 		

RESEARCH SUPPORT

Current

NIH P30 (Harris, McCarty, Stachenko MPI) 7/2020 – 6/2023

“Georgia Cystic Fibrosis Research and Translation Core Center” – This application establishes the **Georgia CF Core Center** at Emory University, Georgia Tech, and Augusta University, in collaboration with Children’s Healthcare of Atlanta. This center will leverage activities at these institutions to solve critical problems associated with CF, specifically those within the mission of the NIDDK. Four biomedical research Cores, an Administrative Core, and a Pilot & Feasibility Program are proposed.

Role: Co-Principal Investigator/AU Site PI

Cystic Fibrosis Foundation Therapeutics (MPI Harris/J. Taylor-Cousar) 4/2019 – 3/2022
Clinical Research Award

“Mechanism of exercise intolerance in CF: role of PDE5 inhibition”

The major goal of this project is to provide mechanistic insight into how PDE5 inhibition increases exercise tolerance in CF.

Role: Co-Principal Investigator

1R01DK117365-01A1 (MPI X. Wang/Harris)

09/2018 – 08/2023

“Role of skeletal muscle health on poor lifestyle related type 2 diabetes and cardiovascular disease risk”

The major goal of this project is to find how the skeletal muscle health and its molecular transducers play a role in chronic diseases linked with unhealthy lifestyles such as cardiovascular disease and type 2 diabetes.

Role: Co-Principal Investigator

1R01HL137087-01A1 (Harris)

02/2018 – 12/2022

“Estrogen-mediated impairments of vascular health in diabetes”

The major goal of this project is to determine the role of estrogen on oxidative stress and vascular dysfunction in patients, particularly women, with diabetes.

Role: Principal Investigator

Vertex Pharmaceuticals IIS Grant (Harris)

07/2014 – 12/2018

“Longitudinal assessment of exercise capacity and vascular function in patients with CF”

The major goal of this project is to document exercise capacity and vascular function in homozygous DF508del patients with CF before (Phase 1) and following (phase 2) the launch of ivacaftor/lumacaftor combination therapy.

Role: Principal Investigator

5P01HL069999 NIH/NHLBI (Harshfield)

07/2014 – 06/2019

“Stress Related Mechanisms of Hypertension Risk”

The major objectives of this program are to 1) define mechanisms that promote hypertension induced by stress, 2) determine the regulation of these mechanisms in high-risk populations, 3) translate findings between animal and human studies, and 4) translate our research into patient populations.

Role: Co Investigator on all 3 projects (45% FTE).

U01 HL117684-01 NIH/NHLBI (Kutlar, D.Pollock, co-P.I.)

09/2013 – 08/2018

“The Role of Endothelin-1 in Sickle Cell Disease”

The goal of this project is to test the hypothesis that endothelin-1 contributes to inflammation, vascular complications, and pain in sickle cell disease.

Role: Co-Investigator

Completed

Cystic Fibrosis Foundation Therapeutics (Harris)

1/2015 – 12/2018

Clinical Research Award

“Mechanism for vascular dysfunction and exercise intolerance in CF”

The major goal of this project is to identify oxidative stress as a mechanism that contributes to vascular dysfunction and exercise intolerance in CF.

Role: Principal Investigator

BioMarin Investigator Sponsored Trial Research Award (Harris, PI)

07/2012 – 6/2018

“Lung, Vascular and Exercise Function in Patients with Cystic Fibrosis”

Biomarin has agreed to supply the study drug (BH₄) for the above mentioned protocol.

Role: Principal Investigator

- HTRC03-01 NIH/HTRC Program (Clay) 02/2014 – 01/2016
“Impact of High-Dose Vitamin D Repletion in Vitamin D Deficient Patients with Sickle Cell Disease.”
The major goal of this project is to investigate the effects of Vitamin D supplementation on clinical and vascular outcomes in patients with sickle cell disease.
Role: Co-Investigator
- 1R21DK100783-01 NIH/NIDDK (Harris) 05/2014 – 03/2016
“Role of Blood Flow and Vascular Function on Exercise Capacity in Cystic Fibrosis”
The major goal of this project is to determine the effect of PDE5 inhibition on vascular function and exercise capacity in patients with CF.
Role: Principal Investigator
- 10SDG3050006 American Heart Association (Harris, PI) 07/2010 – 06/2014
“Regulation of Nitric Oxide Bioavailability in Chronic Obstructive Pulmonary Disease: A Mechanistic Approach”
The major goal of this project is to elucidate the underlying mechanisms for vascular endothelial dysfunction in patients with COPD.
Role: Principal Investigator
- BioMarin Investigator Sponsored Trial Research Award (Harris, PI) 07/2010 – 06/2015
“Regulation of Nitric Oxide Bioavailability in Chronic Obstructive Pulmonary Disease: A Mechanistic Approach”
Biomarin has agreed to supply the study drug (BH₄) for the above mentioned protocol.
Role: Principal Investigator
- Loan Repayment Program (Harris, PI) 08/2010 – 7/2015
National Institutes of Health/NHLBI
“Responders and non-responders to acute physiological stress”
The major goal of this project is to identify physical, biochemical, and genetic characteristics which contribute to the transient FMD response following an acute bout of exercise.
Role: Principal Investigator
- PSRP GRU Intramural Grant (Harris, Harper MPI) 02/2013 – 07/2014
“Estrogen Mediated Vascular Endothelial Dysfunction in Diabetes”
The major goal of this project is to determine the role of estrogen on vascular function in the presence of diabetes.
Role: Principal Investigator
- 1R24DK094765-01 National Institutes of Health (Caldwell, Lukas, Dong MPI) 09/2012 – 08/2013
“Novel Strategies for prevention of diabetic vascular dysfunction”
The major goal of this project is to generate evidence of novel biomarkers and targets for interrupting diabetic disease progression.
Role: Co-Investigator (5%)
- Cardiovascular Discovery Institute (Harris, PI) 07/2010 – 06/2012
“The effect of a high-fat meal on NO bioavailability in postmenopausal women”
The major goal of this project is to identify when women in menopause experience the oxidative stress insult following ingestion of a high-fat meal.
Role: Principal Investigator
- Child Health Discovery Institute (Harris, PI) 07/2010 – 06/2012

“Influence of cystic fibrosis on vascular endothelial function at rest and during exercise”

The major goal of this project is to evaluate endothelial function in patients with cystic fibrosis and to determine if peripheral blood flow is compromised during exercise in these patients.

Role: Principal Investigator

National Institutes of Health Loan Repayment Program (Harris, PI) 08/2010 – 07/2012

“Responders and non-responders to acute physiological stress”

The major goal of this project is to identify physical, biochemical, and genetic characteristics which contribute to the transient FMD response following an acute bout of exercise.

Role: Principal Investigator

Research University Graduate School Dissertation Grant in Aid (Harris, PI) 01/2007

“The Flow-mediated dilation response to acute exercise in overweight men”

The major goal of this project is to investigating the interaction of TNF-alpha, IL-6, and acute exercise intensity on endothelial function.

Role: Principal Investigator

Gatorade Sport Science Institute student Grant in Aid (Harris, PI) 01/2006 – 12/2006

“The effect of acute exercise on endothelial function: A mechanistic approach”

The major goal of this project is to determine the transient effect of various intensities of acute exercise on endothelial function in overweight men.

Role: Principal Investigator

Health Physical Education and Recreation Student Research Grant in Aid (Harris,PI) 09/2006

“The interaction of TNF-a, IL-6 and Acute Exercise on Endothelial Function”

The major goal of this project is to investigate the role of inflammatory biomarkers in influencing brachial artery flow-mediated dilation in response to different intensities of exercise.

Role: Principal Investigator

HPER Graduate Student Research Grant in Aid (Harris, PI) Fall 2006

“The Interaction of TNF-alpha, IL-6, and Acute Exercise on Endothelial Function in Overweight Men”

The major goal of this project is to determine the transient effect of various intensities of acute exercise on endothelial function in overweight men

Role: Principal Investigator

Graduate Student Organization Research Award (Harris, PI) 01/2005 – 12/2005

“The effect of repetitive reactive hyperemia on flow-mediated dilation (FMD) measurements”

The major goal of this project is to identify if repetitive reactive hyperemia is a confounding variable associated with the measurement of FMD.

Role: Principal Investigator

HPER Travel Grant in Aid 2005

“The Effect of Repetitive Reactive Hyperemia on Brachial Artery Flow Mediated Dilation Measurements”

Role: Principal Investigator

HPER Travel Grant in Aid 2004

“Blood Pressure Reduction Following Physical Activity: A Case Study Approach”

Role: Principal Investigator

PROFESSIONAL AFFILIATIONS/CERTIFICATIONS

Clinical Exercise Physiology Association (CEPA)	2009 – Present
The American Physiological Society (APS)	2008 – Present
ACSM Certified Clinical Exercise Specialist (CES)	2005 – Present
American College of Sports Medicine (ACSM)	2003 – Present
CPR Health Care Provider	2001 – Present
CPR Instructor	2001 – 2005

PROFESSIONAL/RESEARCH MEETINGS ATTENDED

NACFC National Meeting	2011 – Present
ACSM National Meeting	2002 – Present
Experimental Biology	2008 – Present
ACSM Integrative Physiology of Exercise, Miami	2010
SWACSM Regional Meeting, San Diego	2008
ACSM Integrated Physiology, Indianapolis	2006

TEACHING RESPONSIBILITIES**Augusta University, Augusta GA***Medical College of Georgia*

-Essentials in Clinical Medicine, M1 and M2 PBL facilitator	2013 – Present
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Biomedical Sciences, College of Graduate Studies

-Frontiers in Vascular Biology, Lecturer

-Experimental Therapeutics, Lecturer

University of California, San Diego, La Jolla, CA*Medical School*

Organ Physiology

- Respiratory Physiology Conferences (PBL's)

- COPD
- Influence of Alcohol on Alveolar Ventilation
- High Altitude and Exercise
- ICU Patient with Heart Attack
 - Respiratory Physiology Laboratory
- Integrated Test of Physiological Reserve

Indiana University, Bloomington, Indiana*Graduate*

K561 Clinical Exercise Physiology Laboratory

- Body composition (hydrostatic weighing and skinfolds)
- Heart rate, blood pressure, and double product
- Heart rate/VO₂ relationship
- EKG
- Spirometry simulating disease populations
- Ventilation
- Cardiac Output: Supine vs. upright

K567 Exercise Specialist Practicum

- Exercise counseling
- Body composition (hydrostatic weighing and skinfolds)
- Pulmonary function and EKG
- Exercise capacity/ Oxygen consumption

*Undergraduate***P409 Exercise Physiology Laboratory**

- Muscular Strength
- Anaerobic power
- Predicted max oxygen consumption
- Ventilatory/Anaerobic thresholds
- Resting metabolic rate
- Maximal oxygen consumption
- Blood pressure
- Pulmonary function
- Body composition (hydrostatic weighing and skinfolds)

E119 Personal Fitness Lecture

- Understanding health related fitness and wellness
- Cardiorespiratory exercise prescription
- Improving muscular strength and endurance
- Nutrition, health, and fitness
- Prevention of cardiovascular disease
- Stress management

E119 Personal Fitness Laboratory

- Cardiorespiratory endurance fitness test
- Cardiorespiratory endurance program development
- Strength and endurance fitness testing
- Muscular strength and endurance program development
- Flexibility program development

- Guest lecture P420 Exercise Leadership for Special Populations (Spring 2007)
Topic(s): Obesity and Exercise, Cardiovascular disease and Exercise part I and II.
- Guest lecture K639 Biochemistry of Exercise (Spring 2007)
Topic: Angiocath placement
- Guest lecture N317 Diet, Disease, and Fitness (Spring 2006)
Topic: Influence of diet on cardiovascular disease
- Supervise clients of the Adult Fitness Program (2003 – 2006)
- Guest lecture K561 Clinical Exercise Physiology (2004 – 2005)
Topic: Endothelial function
- Guest lecture K562 Exercise Prescription in Health and Disease (2004 – 2006)
Topic(s): Body composition, Pulmonary function, Blood values

SUPERVISION OF GRADUATE STUDENT CURRICULUM*Clinical Exercise Physiology Masters Student Curriculum*

- EKG

- Body Composition (skin folds and hydrostatic weighing)
- Pulmonary Function
- Metabolic Exercise Testing
- Exercise Prescription Counseling
- Adult Fitness Program Supervision

SERVICE

General

- American Physiological Society Cardiovascular Section Awards Committee (2013-2016)
- 2010 Southern Translational and Research Conference Abstract Judge, Augusta GA
- APS Minority Travel Fellow Meeting mentor (EB 2010 - present)

Augusta University

- MCG Committee on Committees (2018 –
- MCG Faculty Senate Executive Committee (2018 –
- MCG Strategic Planning Committee: Research Work Group (2013 – 2014)
- MCG Faculty Recognition Committee (2013 – 2016)
- Chair, search committee GPC Systems Analyst position 2013
- PhD Student Thesis Committee (M. Zimmerman)
- PhD Student Oral Qualifying Exam Committee (A. Tipton)
- PhD Student Thesis Committee (M. Beavers)
- Graduate Student Research Day Poster Judge (March 2011)
- Search Committee member for GPI Faculty Member (January 2011)
- Ad hoc Committee to Evaluate the Ruth L. Kirschstein National Research Service Award (NRSA) Institutional Research Training Grant (T32) Mechanism to Enhance Fellowships in the Department of Pediatrics at the Medical College of Georgia

Journal Referee (JCR impact factor in italics)

- Circulation 15.2
- European Heart Journal – Cardiovascular Imaging 2.3
- Journal of Cystic Fibrosis 2.9
- Journal of Sport Sciences 2.1
- American Journal of Physiology: Regulatory, Integrative and Comparative Physiology 3.3
- American Journal of Physiology: Heart and Circulatory Physiology 3.6
- Journal of Applied Physiology 3.5
- Journal of Hypertension 3.8
- Physical Therapy in Sport 0.9
- Journal of Applied Physiology Nutrition and Metabolism 1.6
- European Journal of Applied Physiology 1.9
- Metabolism 2.7
- Ultrasound in Medicine and Biology 2.4
- Medicine and Science in Sports and Exercise 4.5
- Nutrition and Metabolism 2.6
- Journal of Science and Medicine in Sport 2.9