January 2023

CURRICULUM VITAE

PERSONAL INFORMATON

Name: Cameron G. McCarthy, Ph.D., FAHA
Date, place of birth: February 3rd, 1987, London, United Kingdom
Citizenship: New Zealand (Permanent Resident of the United States)
Marital status: Married, Camilla Ferreira Wenceslau, Ph.D., FAHA
Children: Emma (DOB: November 23rd, 2016) and Noah (DOB: October 25th, 2021)

PROFESSIONAL INFORMATION

Address:
Cardiovascular Translational Research Center
Department of Cell Biology and Anatomy
University of South Carolina School of Medicine
6311 Garners Ferry Rd,
Columbia, SC 29208
Office phone: 803-216-3915
Cell phone: 828-406-2733
Email: cameron.mccarthy@uscmed.sc.edu
eRA Commons: CMCCARTHY1
Twitter handle: @CamGMcCarthy
ORCID ID: 0000-0002-1380-779X

EDUCATION

- **Doctor of Philosophy Degree: Physiology**
  - Medical College of Georgia at Augusta University, Augusta, Georgia, May 2016.
- **Master of Science Degree: Health and Sport Sciences (Concentration: Exercise and Sports Science)**
  - University of Memphis, Memphis, Tennessee, May 2011.
- **Bachelor of Science Degree: Physical Education (Concentration: Human Studies)**
  - Appalachian State University, Boone, North Carolina, May 2009.

POSITIONS AND EMPLOYMENT

Research Experience

- **Assistant Professor**
  - Cardiovascular Translational Research Center, Department of Cell Biology and Anatomy, University of South Carolina School of Medicine, August 2021-Present
  - Affiliate Faculty, Biomedical Engineering, College of Engineering and Computing, University of South Carolina, September 2021-Present
- **Dean's Post-Doc to Faculty Fellow**
  - Laboratory of Dr. Bina Joe, Department of Physiology and Pharmacology, University of Toledo College of Medicine and Life Sciences, July 2018-July 2021.
- **Post-Doctoral Fellow**
  - Laboratory of Dr. R. Clinton Webb, Department of Physiology, Medical College of Georgia at Augusta University, June 2016-June 2018.
- **Graduate Research Assistant and Ph.D. Candidate**

- Laboratory of Dr. R. Clinton Webb, Department of Physiology, Medical College of Georgia at Augusta University, August 2011-May 2016.

♦ **Graduate Research Assistant and M.S. Candidate**

- Laboratory of Dr. Richard J. Bloomer (Cardiorespiratory/Metabolic Laboratory), Department of Health and Sport Sciences, University of Memphis, August 2009-July 2011.

ACTIVITIES AND OTHER EXPERIENCES

- ♦ University of South Carolina School of Medicine Culture and Climate Committee, 2022-Present
- ♦ University of South Carolina School of Medicine CTRC/CBA Faculty Search Committee, 2022-Present
- ♦ American Physiological Society (APS) Cardiovascular Section Programming Committee, 2022-Present
- ♦ American Heart Association (AHA) Council on Hypertension Leadership Committee, 2021-Present
- ♦ AHA Council Operations Committee Early Career Subcommittee, 2020-2021
- ♦ International Society of Hypertension (ISH) Mentoring and Training Committee, 2019-2022
- ♦ American Society for Pharmacology and Experimental Therapeutics (ASPET) Division of Cardiovascular Pharmacology (CVP) Competition Committee, 2018-2022
- ♦ AHA Council on Hypertension Trainee Advocacy Committee, 2017-Present
  - Vice-chair, 2021-Present
- ♦ ASPET Travel Award Reviewer, 2019-2022
- ♦ APS Cardiovascular Section Trainee Committee, 2018-2022
- ♦ University of Toledo Biomedical Science Program Molecular Medicine track admissions committee, 2018-2021
- ♦ University of Toledo Graduate and Post-doc Training Task Force, 2018-2019
- ♦ AHA Council on Hypertension Scientific Sessions poster judge, 2017-2019
- ♦ ASPET Partnering for Success Peer Mentoring Program, Experimental Biology, 2017 and 2019
- ♦ Augusta University Department of Physiology Graduate Representative to the Faculty, 2013-2015
- ♦ Augusta University Department of Biochemistry and Molecular Biology Chair search committee, 2014
- ♦ Augusta University Graduate Student Organization Treasurer, 2012-2013
- ♦ Augusta University Student Leadership Institute, 2012
- ♦ Appalachian State University Student Advisory Board Member, 2008-2009
- ♦ Appalachian State University Student Athletic Advisory Board, 2007-2009; Vice President, 2008-2009
- ♦ Appalachian State University Physical Education Majors Club, 2006-2009
- ♦ Appalachian State University Men's Soccer team member, 2005-2009
- ♦ Appalachian State University Men's Soccer Athletic Scholarship, 2005-2009
- ♦ New Zealand Football Under 16, 17, and 20 representative, 2003-2006

EDITORIAL BOARDS

- ♦ Vessel Plus, 2021-Present
- ♦ Vascular Physiology (specialty section of Frontiers in Physiology), 2021-Present (Review Editor)
- ♦ Translation: The University of Toledo Journal of Medical Sciences, 2020-2021 (Associate Editor)
- ♦ Hypertension, 2020-Present
- ♦ American Journal of Hypertension (AJH), 2020-Present
- ♦ American Journal of Physiology (AJP)-Heart and Circulatory Physiology, 2019-Present

STUDY SECTIONS

- ♦ NIH Basic Biology of Blood, Heart and Vasculature (BBHV) study section (ECR/*ad-hoc*), 2022

- South Carolina IDeA Network of Biomedical Research Excellence (SC INBRE): Developmental Research Projects (DRP), 2022
- AHA Fellowship: Vascular Biology Blood Pressure Peer Review, 2021

MANUSCRIPT REVIEWER

- **2022 and 2023:** AJH, AJP-Heart and Circulatory Physiology, Cells, Frontiers in Physiology, Hypertension, Journal of the American Heart Association (JAHA), Journal of Pharmacology and Experimental Therapeutics, Journal of Vascular Research, Life Sciences, Pharmacological Research, The Journal of Physiology, Vascular Pharmacology.
- **Past:** AJP-Cell Physiology, AJP-Gastrointestinal and Liver Physiology, Biological Reviews, British Journal of Pharmacology, Cell Death and Disease, Cellular Physiology and Biochemistry, Circulation Research, Clinical and Experimental Pharmacology and Physiology, Endocrine and Metabolic Science, Frontiers in Pharmacology, Innate Immunity, International Journal of Cardiology Hypertension, Journal of Applied Physiology, Journal of Human Hypertension, Physiological Genomics, PLOS ONE, Redox Report, Translation: The University of Toledo Journal of Medical Sciences.

GRANT SUPPORT

Current

1. National Institutes of Health (NIH) Pathway to Independence Award (R00HL151889). Autophagy regulates β-hydroxybutyrate synthesis to prevent hypertension-associated premature vascular aging, July 2020-December 2024.

Completed

1. NIH Center for Dietary Supplements and Inflammation (1P20GM103641). Pilot Project: Ketone monoester supplementation is a novel anti-hypertensive therapy, November 2021-November 2022.
2. AHA Career Development Award (20CDA35290004). Autophagy regulates β-hydroxybutyrate synthesis to prevent hypertension-associated premature vascular aging, July 2020-June 2023. Declined due to thematic overlap with NIH Pathway to Independence Award (K99/R00).
3. AHA Post-Doctoral Fellowship (18POST34060003). Decreased autophagy leads to proteotoxicity and senescence in hypertension-associated premature vascular aging, July 2018-June 2020.
4. AHA Pre-Doctoral Fellowship (13PRE14080019). Toll-like receptor 9 activation increases vascular inflammation and contractility in aortic stiffening, January 2013-December 2014.

AWARDS AND HONORS

- University of South Carolina Propel Research Mentorship Program, 2021-2022
- AJH John Laragh Research Award, 2021
- APS Cardiovascular Section *Clinical Science Young Investigator Award* Sponsored by Portland Press, 2021
- University of Toledo Department of Physiology and Pharmacology *Post-Doctoral TLC Leadership Award*, 2020
- Fellow of the American Heart Association (FAHA) Council on Hypertension, 2020
- NIH Pathway to Independence Award (K99/R00), 2020-2025
- AHA Career Development Award, 2020-2023. Declined.
- AJP-Heart and Circulatory Physiology Star Reviewer, 2019
- AHA Council on Hypertension New Investigator Travel Award, 2019
- American Physiological Society (APS) Cardiovascular Section Outstanding Postdoctoral Trainee Award, Experimental Biology, 2019
  - Third place

- AHA Post-Doctoral Fellowship, 2018-2020
- APS Cardiovascular Section Research Recognition Award, Experimental Biology, 2018
- APS Caroline tum Suden/Frances Hellebrandt Professional Opportunity Award, Experimental Biology, 2017
- ASPET Mentoring Network participant, 2016-2017
- AHA Council on Hypertension Advisory and Mentoring Program (CHAMP) participant, 2015-2017
- Augusta University Department of Physiology Award for Excellence in Research, 2015
- ASPET Division of CVP Trainee Showcase-Graduate Student Competition, Experimental Biology, 2015
  - First place
- *Who's Who Among Students in American Universities and Colleges*, 2015
- Augusta University Department of Physiology *Chair's Graduate Fellowship*, 2015
  - Attended the APS Professional Skills Training Course: Writing and Reviewing for Scientific Journals, 2016
- ISH New Investigator Network Member Spotlight *(Spotlight of the Month)*, 2014
- *Journey Through Science Day* participant, sponsored by PepsiCo and the New York Academy of Sciences, 2014
- ISH New Investigator Committee Oral Presentation Award, 2014
- Augusta University Faculty and Spouse/Partner Club Scholarship, 2014
- ASPET Division of CVP Trainee Showcase-Graduate Student Competition, Experimental Biology, 2014
  - Third place
- Student Travel Award to the ASPET annual meeting at Experimental Biology, 2014
- University of Memphis Department of Health and Sport Sciences *Outstanding Alumni*
- Southern Translational Education and Research (STaR) Conference Graduate Student Best Poster Award, 2013
- Student Travel Award to the ASPET annual meeting at Experimental Biology, 2013
- ASPET Division of CVP Trainee Showcase-Graduate Student Competition, Experimental Biology, 2013
  - Honorable mention
- AHA Pre-Doctoral Fellowship, 2013-2014
- Augusta University College of Graduate Studies Travel Award to Council on High Blood Pressure Research, 2012
- Augusta University College of Graduate Studies Travel Award to Experimental Biology, 2012
- Appalachian State University Chancellor's List (7 semesters)
- Appalachian State University Dean's List (8 semesters)
- Appalachian State University Academic Award, 2006-2007, 2007-2008, 2008-2009
- Southern Conference Bob McCloskey Insurance Graduate Scholarship, 2009
- NCAA Postgraduate Scholarship Finalist, 2009
- *Who's Who Among Students in American Universities and Colleges*, 2009
- Jim and Katy Martin Endowment Scholarship for Education/Athletics, 2008-2009
- Carol Grotnes Belk Library Student Employee Scholarship, 2008
- Roger E. Thomas Scholarship, 2007, 2008
- Essie D. Briggs and Donald B. Briggs Endowment Scholarship for Education, 2007
- Appalachian State University Reich College of Education Scholarship, 2007
- Appalachian State University Physical Education Teacher Education Major of the Year, 2007-2008
- Appalachian State University Physical Education Teacher Education Professionalism Award, 2006-2007
- NCAA Leadership Conference, 2007
- Southern Conference Fall All-Academic Soccer Team, 2006, 2007, 2008

- Southern Conference Commissioner's Academic Medal, 2006-2007, 2007-2008, 2008-2009
- Southern Conference Academic Honor Roll, 2005-2006, 2006-2007, 2007-2008, 2008-2009

PROFESSIONAL AFFILIATIONS

- Microcirculatory Society, 2020-Present
- North American Vascular Biology Organization (NAVBO), 2020-Present
- National Lipid Association, 2019-2020
- American Association for the Study of Liver Diseases (AASLD), 2019-Present
- International Society of Hypertension (ISH), 2014-Present
- American Society for Pharmacology and Experimental Therapeutics (ASPET), 2012-Present
- American Heart Association (AHA), 2012-Present
- American Physiological Society (APS), 2012-Present
- American College of Sports Medicine (ACSM), 2010-Present

PUBLICATIONS (Google Scholar h-index: 27, i10-index: 44, >2140 total citations)

Peer-Reviewed Manuscripts: In Press or Published

1. Costa TJ, Linder BA, Hester S, Fontes M, Pernomian L, Wenceslau CF, Robinson AT, & **McCarthy CG**. The Janus face of ketone bodies in hypertension. *J Hypertens*. 40(11): 2111-2119, 2022.
2. Wenceslau CF, **McCarthy CG**, Earley S, England SK, Filosa JA, Goulopoulou S, Gutterman DD, Isakson BE, Kanagy NL, Martinez-Lemus LA, Sonkusare SK, Thakore P, Trask AJ, Watts SW, & Webb RC. Reply to Boedtkjer and Aalkjaer. *Am J Physiol Heart Circ Physiol.* 322(4): H687-H688, 2022.
3. Wenceslau CF, **McCarthy CG**, Earley S, England SK, Filosa JA, Goulopoulou S, Gutterman DD, Isakson BE, Kanagy NL, Martinez-Lemus LA, Sonkusare SK, Thakore P, Trask AJ, Watts SW, & Webb RC. Reply to De Mey et al. *Am J Physiol Heart Circ Physiol.* 322(4): H683-H684, 2022.
4. **McCarthy CG**, Waigi EW, Yeoh BS, Mell B, Vijay-Kumar M, Wenceslau CF, & Joe B. Low dose 1,3-butanediol reverses age-associated vascular dysfunction independent of ketone body β-hydroxybutyrate. *Am J Physiol Heart Circ Physiol.* 322(3): H466-H473, 2022.
5. **McCarthy CG**, Waigi EW, Singh G, Chakraborty S, Mell B, Wenceslau CF, & Joe B. Physiologic, metabolic, and toxicologic profile of 1,3-butanediol. *J Pharmacol Exp Ther*. 379(3): 245-252, 2021.
6. Cheon S, Tomcho JC, Edwards JM, Bearss NR, Waigi EW, Joe B, **McCarthy CG**, & Wenceslau CF. Opioids cause sex-specific vascular changes via cofilin-extracellular signal-regulated kinase signaling: female mice present higher risk of developing morphine-induced vascular dysfunction than male mice. *J Vasc Res*. 58(6): 392-402, 2021.
7. **McCarthy CG**, Chakraborty S, Singh G, Yeoh BS, Schreckenberger ZJ, Singh A, Mell B, Bearss NR, Yang T, Cheng X, Vijay-Kumar M, Wenceslau CF, & Joe B. Ketone body β-hydroxybutyrate is an autophagy-dependent vasodilator. *JCI Insight*. 6(20): e149037, 2021.
8. Silva CBP, Elias-Oliveira J, **McCarthy CG**, Wenceslau CF, Carlos D, & Tostes RC. Ethanol: striking the cardiovascular system by harming the gut microbiota. *Am J Physiol Heart Circ Physiol.* 321(2): H275-H291, 2021.
9. Wenceslau CF, **McCarthy CG**, Earley S, England SK, Filosa JA, Goulopoulou S, Gutterman DD, Isakson BE, Kanagy NL, Martinez-Lemus LA, Sonkusare SK, Thakore P, Trask AJ, Watts SW, & Webb RC. Guidelines for the measurement of vascular function and structure in isolated arteries and veins. *Am J Physiol Heart Circ Physiol.* 321(1): H77-H111, 2021.
10. Aradhyula V, **McCarthy CG**, Waigi E, Bearss NR, Edwards JM, Joe B, Koch LG, & Wenceslau CF. Intrinsic exercise capacity induces divergent vascular plasticity via arachidonic acid-mediated inflammatory pathways in female rats. *Vascul Pharmacol*. Article 106862, 2021.

11. Priviero F, Calmasini FB, Justina VD, Wenceslau CF, **McCarthy CG**, Antunes E, & Webb RC. Macrophage-specific Toll like receptor 9 (TLR9) causes corpus cavernosum dysfunction in mice fed a high fat diet. *J Sex Med*. 18(4): 723-731, 2021.
12. Wilczynski S, Wenceslau CF, **McCarthy CG**, & Webb RC. A cytokine/bradykinin storm comparison: What is the relationship between hypertension and COVID-19?? *Am J Hypertens*. 34(4): 304-306, 2021.
13. Edwards JM, Roy S, Galla SL, Tomcho JC, Bearss NR, Mell B, Cheng X, Saha P, Vijay-Kumar M, **McCarthy CG**, Joe B, & Wenceslau CF. Formyl peptide receptor-1 activation promotes spontaneous, premature hypertension in Dahl salt-sensitive rats. *Hypertension*. 77(4): 1191-1202, 2021.
14. **McCarthy CG**, Saha P, Golonka R, Wenceslau CF, Joe B, & Vijay-Kumar M. Innate immune cells and hypertension: Neutrophils and neutrophil extracellular traps (NETs). *Compr Physiol.* 11(1): 1575-1589, 2021.
15. Roy S, Edwards JM, Tomcho JC, Schreckenberger ZJ, Bearss NR, Zhang Y, Morgan E, Spegele AC, Vijay-Kumar M, **McCarthy CG**, Koch LG, Joe B, & Wenceslau CF. Intrinsic exercise capacity and mitochondrial DNA lead to opposing vascular-associated risks. *Function (Oxf)*. 2(1): zqaa029, 2021.
16. **McCarthy CG**, Wilczynski S, Wenceslau CF, & Webb RC. A new storm on the horizon in COVID-19: Bradykinin-induced vascular complications. *Vascul Pharmacol*. Article 106826, 2020.
17. Yang T, Chakraborty S, Saha P, Mell B, Cheng X, Yeo JY, Mei X, Zhou G, Mandal J, Golonka R, Yeoh BS, Putluri V, Piyarathna DWB, Putluri N, **McCarthy CG**, Wenceslau CF, Sreekumar A, Gewirtz A, Vijay-Kumar M, & Joe B. Gnotobiotic rats reveal that gut microbiota regulates colonic mRNA of *Ace2*, the receptor for SARS-CoV-2 infectivity. *Hypertension*. 76(1): e1-e3, 2020.
18. Joe B, **McCarthy CG**, Edwards JM, Cheng X, Chakraborty S, Yang T, Golonka R, Mell B, Yeo JY, Bearss NR, Furtado J, Saha P, Yeoh BS, Vijay-Kumar M, & Wenceslau CF. Microbiota introduced to germ-free rats restores vascular contractility and blood pressure. *Hypertension*. 76(6): 1847-1855, 2020.
19. Chakraborty S, Mandal J, Yang T, Cheng X, Yeo JY, **McCarthy CG**, Wenceslau CF, Koch LG, Hill J, Vijay-Kumar M, & Joe B. Metabolites and Hypertension: Insights into hypertension as a metabolic disorder: 2019 Harriet Dustan award. *Hypertension*. 75(6): 1386-1396, 2020.
20. Cheng X, Mell B, Alimadadi A, Galla SL, **McCarthy CG**, Chakraborty S, Basrur V, & Joe B. Genetic predisposition for increased red blood cell distribution width is an early risk factor for cardiovascular and renal comorbidities. *Dis Model Mech*. 13(5): dmm044081, 2020.
21. Edwards JM, **McCarthy CG**, & Wenceslau CF. The obligatory role of the acetylcholine-induced endothelium-dependent contraction in hypertension: Can arachidonic acid resolve this inflammation? *Curr Pharm Des.* 26(30): 3723-3732, 2020.
22. Schreckenberger ZJ, Wenceslau CF, Joe B, & **McCarthy CG**. Mitophagy in hypertension-associated premature vascular aging. *Am J Hypertens*. 33(9): 804-812, 2020.
23. Calmasini FB, **McCarthy CG**, Wenceslau CF, Priviero FB, Antunes E, & Webb RC. Toll-like receptor 9 regulates metabolic profile and contributes to obesity-induced benign prostatic hyperplasia in mice. *Pharmacol Rep*. 72(1): 179-187, 2020.
24. Edwards JM, Roy S, Tomcho JC, Schreckenberger ZJ, Chakraborty S, Bearss NR, Saha P, **McCarthy CG**, Vijay-Kumar M, Joe B, & Wenceslau CF. Microbiota are critical for vascular physiology: Germ-free status weakens contractility and induces sex-specific vascular remodeling in mice. *Vascul Pharmacol.* 125-126: Article 106633, 2020.
25. **McCarthy CG**, Wenceslau CF, Calmasini FB, Klee NS, Brands MW, Bina Joe, & Webb RC. Reconstitution of autophagy ameliorates vascular function and arterial stiffening in spontaneously hypertensive rats. *Am J Physiol Heart Circ Physiol.* 317(5): H1013-H1027, 2019.
26. Silva DF, Wenceslau CF, **McCarthy CG**, Szasz T, Ogbi S, & Webb RC. TRPM8 channel activation triggers relaxation of pudendal artery with increased sensitivity in the hypertensive rats. *Pharmacol Res*. 147: Article 104329, 2019.

27. Martinez-Quinones PA, Komic A, **McCarthy CG**, Webb RC, & Wenceslau CF. Targeting endothelial barrier dysfunction caused by circulating bacterial and mitochondrial N-formyl peptides with deformylase. *Front Immunol*. 10: Article 1270, 2019.
28. **McCarthy CG**, Wenceslau CF, Webb RC, & Joe B. Novel contributors and mechanisms of cellular senescence in hypertension-associated premature vascular aging. *Am J Hypertens*. 32(8): 709-719, 2019.
29. **McCarthy CG**, Goulopoulou S, & Webb RC. Paying the toll for inflammation: Immunoreceptor-mediated vascular dysfunction in hypertension. *Hypertension*. 73(3): 514-521, 2019.
30. Wenceslau CF, **McCarthy CG**, Szasz T, Calmasini FB, Mamenko M, & Webb RC. Formyl peptide receptor-1 activation exerts a critical role for the dynamic plasticity of arteries via actin polymerization. *Pharmacol Res.* 141: 276-290, 2019.
31. **McCarthy CG**, Wenceslau CF, & Joe B. B lymphoma Mo-MLV insertion region 1 homolog (BMI1): The Janus-faced polycomb protein that will break your heart. *Am J Physiol Heart Circ Physiol.* 316(2): H257-H259, 2019.
32. Klee NS, **McCarthy CG**, Lewis S, Vincent JE, & Webb RC. Urothelial senescence in the pathophysiology of diabetic bladder dysfunction-a novel hypothesis. *Front Surg.* 5: Article 72, 2018.
33. Komic A, Martinez-Quinones PA, **McCarthy CG**, Webb RC, & Wenceslau CF. Increases in soluble protein oligomers trigger the innate immune system to promote inflammation and vascular dysfunction in the pathogenesis of sepsis. *Clin Sci (Lond)*. 132(13): 1433-1438, 2018.
34. **McCarthy CG** & Wenceslau CF. Adopting an orphan: How could GRP35 contribute to angiotensin II-dependent hypertension? *Am J Hypertens*. 31(9): 973-975, 2018.
35. Wenceslau CF*, **McCarthy CG***, & Webb RC. To be, or nox to be, endoplasmic reticulum stress in hypertension. *Hypertension*. 72(1): 59-60, 2018. *Authors contributed equally to this work.
36. Martinez-Quinones PA, **McCarthy CG**, Watts SW, Klee NS, Komic A, Priviero FB, Calmasini FB, Warner A, Chenghao Y, & Wenceslau CF. Hypertension induced morphological and physiological changes in cells of the arterial wall. *Am J Hypertens*. 31(10): 1067-1078, 2018.
37. **McCarthy CG**, Wenceslau CF, Ogbi S, Szasz T, & Webb RC. Toll-like receptor 9-dependent AMPKα activation occurs via TAK1 and contributes to RhoA/ROCK signaling and actin polymerization in vascular smooth muscle cells. *J Pharmacol Exp Ther*. 365(1): 60-71, 2018.
38. Wynne BM, **McCarthy CG**, Szasz T, Molina PA, Chapman AB, Webb RC, Klein JD, & Hoover RS. Protein Kinase Cα deletion causes hypotension and decreased vascular contractility. *J Hypertens*. 36(3): 510-519, 2018.
39. Butcher JT, Ali MI, Ma MW, **McCarthy CG**, Islam BN, Fox LG, Mintz JD, Larion S, Fulton DJ, Stepp DW. Effect of myostatin deletion on cardiac function and microvasculature. *Physiol Rep.* 5(23): 2017.
40. Klee NS, **McCarthy CG**, Martinez-Quinones PA, & Webb RC. Out of the frying pan and into the fire: DAMPs and cardiovascular toxicity following cancer therapy. *Ther Adv Cardiovasc Dis.* 11(11): 297-317, 2017.
41. Martinez-Quinones PA, **McCarthy CG**, Mentzer CJ, Wenceslau CF, Holsten SB, Webb RC, & O'Malley K. Peritoneal cavity lavage reduces the presence of mitochondrial damage associated molecular patterns in open abdomen patients. *J Trauma Acute Care Surg*. 83(6): 1062-1065, 2017.
42. **McCarthy CG**, Wenceslau CF, Goulopoulou S, Baban B, Matsumoto T, & Webb RC. Chloroquine suppresses the development of hypertension in spontaneously hypertensive rats. *Am J Hypertens*. 30(2): 173-181, 2017.
43. Stewart DL, Dong Y, Zhu H, **McCarthy CG**, Sullivan JC, Ergul A, Webb RC, & Harshfield GA. Angiotensin II-mediated increases in damage-associated molecular patterns during acute mental stress. *Psychosom Med*. 79(1): 112-114, 2017. [Erratum: 80(6): 590, 2018]
44. **McCarthy CG**, Wenceslau CF, Goulopoulou S, Ogbi S, Matsumoto T, & Webb RC. Autoimmune therapeutic chloroquine lowers blood pressure and improves endothelial function in spontaneously hypertensive rats. *Pharmacol Res.* 113 (Pt A): 384-394, 2016.

45. Wenceslau CF, **McCarthy CG**, & Webb RC. Formyl peptide receptor activation elicits endothelial cell contraction and vascular leakage. *Front Immunol*. 7: Article 297, 2016.
46. Wenceslau CF, Szasz T, **McCarthy CG**, NeSmith EG, & Webb RC. Mitochondrial N-formyl peptides cause airway contraction and lung neutrophil infiltration via formyl peptide receptor activation. *Pulm Pharmacol Ther.* 37: 49-56, 2016.
47. Goulopoulou S, Wenceslau CF, **McCarthy CG**, Matsumoto T, & Webb RC. Exposure to stimulatory CpG oligonucleotides during gestation induces maternal hypertension and excess vasoconstriction in pregnant rats. *Am J Physiol Heart Circ Physiol.* 310(8): H1015-25, 2016.
48. Goulopoulou S, **McCarthy CG**, & Webb RC. Toll-like receptors in the vascular system: Sensing the dangers within. *Pharmacol Rev.* 68(1): 142-67, 2016.
49. **McCarthy CG** & Webb RC. The toll of the gridiron: damage-associated molecular patterns and hypertension in American football. *FASEB J*. 30(1): 34-40, 2016
50. **McCarthy CG**, Wenceslau CF, Goulopoulou S, Ogbi S, Baban B, Sullivan JC, Matsumoto T, & Webb RC. Circulating mitochondrial DNA and Toll-like receptor 9 are associated with vascular dysfunction in spontaneously hypertensive rats. *Cardiovasc Res*. 107(1): 119-30, 2015.
51. Wenceslau CF, **McCarthy CG**, Szasz T, Goulopoulou S, & Webb RC. Mitochondrial N-formyl peptides induce cardiovascular collapse and sepsis-like symptoms. *Am J Physiol Heart Circ Physiol*. 308(7): H768-77, 2015.
52. Wenceslau CF, **McCarthy CG**, Szasz T, & Webb RC. Lipoxin A_4 mediates aortic contraction via RhoA/Rho kinase, endothelial dysfunction and reactive oxygen species. *J Vasc Res*. 51(6): 407-17, 2014.
53. Canale RE, Farney TM, **McCarthy CG**, & Bloomer RJ. Influence of acute exercise of varying intensity and duration on postprandial oxidative stress. *Eur J Appl Physiol*. 114(9): 1913-24, 2014.
54. Wenceslau CF, **McCarthy CG**, Szasz T, Spitler K, Goulopoulou S, & Webb RC. Mitochondrial damage-associated molecular patterns and vascular function. *Eur Heart J.* 35(18): 1172-7, 2014.
55. **McCarthy CG**, Goulopoulou S, Wenceslau CF, Spitler K, Matsumoto T, & Webb RC. Toll-Like Receptors and Damage-Associated Molecular Patterns: Novel links between inflammation and hypertension. *Am J Physiol Heart Circ Physiol.* 306(2): H184-96, 2014.
56. Wenceslau CF, **McCarthy CG**, Goulopoulou S, Szasz T, NeSmith EG, & Webb RC. Mitochondrial-derived *N*-formyl peptides: Novel links between trauma, vascular collapse and sepsis. *Med Hypotheses.* 81(4): 532-35, 2013.
57. Bloomer RJ, Farney TM, **McCarthy CG**, & Rok-Lee S. Cissus quadrangularis reduces joint pain in exercise-trained men: A pilot study. *Phys Sportsmed.* 41(3): 29-35, 2013.
58. **McCarthy CG**, Farney TM, Canale RE, Dessoulavy ME, & Bloomer RJ. High fat feeding, but not strenuous exercise, increases oxidative stress in trained men. *Appl Physiol Nutr Metab.* 38(1): 33-41, 2013.
59. Bloomer RJ, Canale RE, **McCarthy CG**, & Farney TM. Impact of oral ubiquinol on exercise performance and blood oxidative stress. *Oxid Med Cell Longev.* 2012: 2012.
60. Farney TM, **McCarthy CG**, Canale RE, Schilling BK, Whitehead PN, & Bloomer RJ. Absence of blood oxidative stress in trained men following strenuous exercise. *Med Sci Sports Exerc.* 44(10): 1855-63, 2012.
61. **McCarthy CG**, Alleman RJ, Bell ZW, & Bloomer RJ. A dietary supplement containing chlorophytum borivilianum and velvet bean improves sleep quality in men and women. *Integr Med Insights.* 7: 7-14, 2012.
62. **McCarthy CG**, Farney TM, Canale RE, Alleman RJ, & Bloomer RJ. A finished dietary supplement stimulates lipolysis and metabolic rate in healthy men and women. *Nutr Metab Insights*. 5: 23-31, 2012.
63. **McCarthy CG**, Canale RE, Alleman RJ, Reed JP, & Bloomer RJ. Biochemical and anthropometric effects of a weight loss dietary supplement in healthy men and women. *Nutr Metab Insights*. 5: 13-22, 2012.

64. Farney TM, **McCarthy CG**, Canale RE, & Bloomer RJ. Hemodynamic and hematologic profile of healthy adults ingesting dietary supplements containing 1,3-dimethylamylamine and caffeine. *Nutr Metab Insights.* 5: 1-12, 2012.
65. Trepanowski JF, Farney TM, **McCarthy CG**, Schilling BK, Craig SA, & Bloomer RJ. The effects of chronic betaine supplementation on exercise performance, skeletal muscle oxygen saturation and associated biochemical parameters in resistance trained men. *J Strength Cond Res.* 25(12): 3461-71, 2011.
66. Bloomer RJ, **McCarthy CG**, Farney TM, & Harvey IC. Effect of caffeine and 1,3-dimethylamylamine on exercise performance and blood markers of lipolysis and oxidative stress in trained men and women. *J Caffeine Res.* 1(3): 169-77, 2011.
67. Canale RE, Farney TM, **McCarthy CG**, & Bloomer RJ. A blend of phellodendron and crape myrtle improves glucose tolerance in exercise-trained men. *Nutr Metab Insights*. 4: 39-47, 2011.
68. Alleman RJ Jr, Canale RE, **McCarthy CG**, & Bloomer RJ. A blend of chlorophytum borivilianum and velvet bean increases serum growth hormone in exercise-trained men. *Nutr Metab Insights*. 4: 55-63, 2011.
69. Bloomer RJ, Farney TM, Trepanowski JF, **McCarthy CG**, & Canale RE. Effect of betaine supplementation on plasma nitrate/nitrite in exercise-trained men. *J Int Soc Sports Nutr.* 8:5, March 18, 2011.
70. Bloomer RJ, Farney TM, Trepanowski JF, **McCarthy CG**, Canale RE, & Schilling BK. Comparison of pre-workout nitric oxide stimulating dietary supplements on skeletal muscle oxygen saturation, blood nitrate/nitrite, lipid peroxidation, and exercise performance in resistance trained men. *J Int Soc Sports Nutr.* **7**:16, May 6, 2010.

Book Chapters and Other Publications

1. **McCarthy CG**. Autophagy and hypertension-associated premature vascular aging. *International Society of Hypertension: Hypertension News.* 46-47, 2021. DOI:10.30824/2106-19.
2. Bloomer RJ, **McCarthy CG**, & Farney TM. Minimizing postprandial oxidative stress in type 2 diabetes: The role of exercise and selected nutrients. In: Croniger C (Ed). *Role of the Adipocyte in Development of Type 2 Diabetes.* InTechOpen. 321-72, 2011. DOI: 10.5772/1543. ISBN: 978-953-307-598-3

Peer Reviewed Manuscripts: In Review

1. Waigi EW, Webb RC, **McCarthy CG**, & Wenceslau CF. Soluble protein oligomers accumulation, endoplasmic reticulum stress and vascular dysfunction. *Geroscience*. In review.
2. Hoover RS, Hecht G, Samson TK, Moseley AS, Paul O, Moyer HC, van Elst HJ, Al-Khalili O, Thielig F, **McCarthy CG**, Wenscelau CF, Mamenko M, Webb RC, Eaton DC and Wynne BM. Interleukin 6 increases blood pressure and sodium reabsorption via mineralocorticoid receptor activation. In review.
3. Costa TJ, Barros PR, Duarte DA, da Silva-Neto JA, Hott SC, Akamine EH, **McCarthy CG**, Jimenez-Altayó F, Tostes RC, & Dantas AP. Carotid dysfunction in senescent female mice is mediated by increased α_{1A}-adrenoceptors activity and COX-derived vasoconstrictor prostanoids. . *Am J Physiol Heart Circ Physiol.* In review.

ABSTRACTS

Presented

1. **McCarthy CG**, Chakraborty S, Mell B, Wenceslau CF, & Joe B. High salt impairs energy sensing and autophagy to decrease the synthesis of liver-derived vasodilator, β-hydroxybutyrate. *FASEB J.* 35(Suppl 1). Presented at Experimental Biology 2021. Oral presentation.
2. **McCarthy CG**, Chakraborty S, Singh A, Schreckenberger ZJ, Mell B, Wenceslau CF, & Joe B. Autophagy regulates β-hydroxybutyrate synthesis to prevent high-salt induced vascular damage. *Hypertension.* 76(Suppl 1): AMP39. Presented at Council on Hypertension Scientific Sessions 2020. Moderated poster.

3. **McCarthy CG**, Chakraborty S, Singh A, Schreckenberger ZJ, Mell B, Wenceslau CF, & Joe B. β-hydroxybutyrate (βOHB) activates Gpr109a to contribute to the anti-vascular aging effect of autophagy. *FASEB J.* 34(Suppl 1): 965.3. Accepted at Experimental Biology 2020.
4. **McCarthy CG**, Chakraborty S, Schreckenberger ZJ, Wenceslau CF, & Joe B. β-Hydroxybutyrate (βOHB) synthesis contributes to the anti-vascular aging effect of autophagy. *Hypertension.* 74(Suppl 1): 66. Presented at Council on Hypertension Scientific Sessions 2019. Oral presentation.
5. **McCarthy CG**, Chakraborty S, Schreckenberger ZJ, Wenceslau CF, & Joe B. β-Hydroxybutyrate (βOHB) increases nitric oxide synthase activity in resistance arteries from Dahl salt-sensitive rats. *FASEB J.* 33(Suppl 1): 829.1. Presented at Experimental Biology 2019. Oral presentation.
6. **McCarthy CG**, Wenceslau CF, Calmasini FB, Klee NS, & Webb RC. Reconstitution of autophagy ameliorates endothelium-dependent relaxation, vascular smooth muscle calcium sensitization, & arterial stiffening in spontaneously hypertensive rats. *Hypertension.* 72(Suppl 1): 32. Presented at Council on Hypertension Scientific Sessions 2018. Oral presentation.
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11. **McCarthy CG**, Wenceslau CF, Ogbi S, Szasz T, & Webb RC. The non-canonical stress tolerance cascade for Toll-like receptor 9 in the vasculature signals through liver kinase B1. *Hypertension.* 68(Suppl 1): P214. Presented at Council on Hypertension Scientific Sessions 2016.
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2. Pernomian L, Waigi EW, **McCarthy CG**, & Wenceslau CF. Endothelial dysfunction and increased contractility in resistance arteries occurs prior to onset of hypertension in Schlager (BPH/2J) mice. *Hypertension*. 79 (Suppl 1): AP058. Presented at Council on Hypertension Scientific Sessions 2022.
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morphine-induced vascular dysfunction than male mice. *Hypertension.* 76(Suppl 1): AP100. Presented at Council on Hypertension Scientific Sessions 2020.

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59. Wenceslau CF, **McCarthy CG,** Goulopoulou S, Szasz T, & Webb RC. Mitochondrial N-formyl peptides lead to sepsis-like symptoms via basophil activation. *Hypertension.* 64(Suppl 1): A262. Presented at Council on Hypertension Scientific Sessions 2014.

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61. Wenceslau CF, **McCarthy CG,** Goulopoulou S, Szasz T, & Webb RC. Lipoxin A_4 mediates aortic contraction and endothelial dysfunction via reactive oxygen species. *Hypertension.* 62(Suppl 1): A306. Presented at High Blood Pressure Research 2013.
62. Spitler K, Wenceslau CF, **McCarthy CG,** & Webb RC. Endoplasmic reticulum stress contributes to aortic stiffening through increased collagen synthesis and deposition. *Hypertension.* 62(Suppl 1): A317. Presented at High Blood Pressure Research 2013.
63. Wenceslau CF, **McCarthy CG**, Goulopoulou S, Szasz T, & Webb RC. Activation of formyl peptide receptors induces relaxation and reduces contraction in resistance arteries. *FASEB J.* 27(Suppl 1): 1131.11. Presented at Experimental Biology 2013.
64. Goulopoulou S, Matsumoto T, Wenceslau CF, **McCarthy CG**, Spitler K, & Webb RC. Circulating fragmented mitochondria induce maternal hypertension, placental inflammation and apoptosis in pregnant rats. *FASEB J*. 27(Suppl 1): 708.9. Presented at Experimental Biology 2013.
65. Goulopoulou S, Matsumoto T, Wenceslau CF, Spitler K, **McCarthy CG**, & Webb RC. Systemic activation of Toll-like receptor 9 increases vascular contractility and induces hypertension in pregnant but not in non-pregnant rats. Presented at the Society for Gynecologic Investigation 2013.
66. Canale RE, **McCarthy CG**, Farney TM, & Bloomer RJ. A blend of Phellodendron and Crape Myrtle extract improves acute glucose tolerance in healthy men. *Medicine and Science in Sports and Exercise*. 43(5): S2366. Presented at the American College of Sports Medicine Annual Meeting 2011.

INVITED LECTURES

1. Novel mechanisms of autophagy-mediated vasculoprotection. ACSM's Integrative Physiology of Exercise Conference, September, 2022.
2. Novel mechanisms of autophagy-mediated vasculoprotection (and some serendipitous observations about 1,3-butanediol). *Department of Physiology Seminar*. University of Arizona, May, 2022.
3. Novel mechanisms of autophagy-mediated vasculoprotection (and some serendipitous observations about 1,3-butanediol). *Department of Anatomy, Physiology & Pharmacology Seminar*. Auburn University, April, 2022.
4. Novel mechanisms of autophagy-mediated vasculoprotection. *Emerging Topics in the Microcirculation.* Experimental Biology, April 2022.
5. The obligatory role of microbiota in vascular physiology. *Gut Microbiome and Cardiovascular Disease Satellite Symposium.* High Blood Pressure Research Council of Australia (HBPRCA) and Monash University, December 2021.
6. Innate immunity and the vasculature system. *Mecanismos Locais de Regulação do Fluxo Sanguíneo: Ajustes em Processos Fisiológicos e Patológicos*. Universidade de Sao Paulo, June 2021.
7. β-hydroxybutyrate is an autophagy-dependent vasodilator. *Cardiovascular Translational Research Center Faculty Candidate Seminar.* University of South Carolina, April 2021.
8. Innate immune cells and hypertension: Neutrophils and neutrophil extracellular traps. *Inflammatory mediators in hypertension seminar series*. Universidade Federal de Mato Grosso, April 2021.
9. COVID-19 and hypertension. *The Women & Philanthropy Education Committee and the University of Toledo College of Medicine and Life Sciences Alumni Affiliate Webinar.* University of Toledo, October 2020.
10. Autophagy ameliorates hypertension-associated premature vascular aging. *Cardiovascular Translational Research Center Seminar.* University of South Carolina, June 2020.

11. Reconstitution of autophagy ameliorates vascular function and arterial stiffening in hypertension. *Tiffin University Science Club Seminar.* Tiffin University, September 2019.
12. Mitochondrial damage-associated molecular patterns and decreased autophagy contribute to vascular dysfunction in hypertension. *Renal Medicine and Physiology Seminar Series hosted by the Departments of Physiology and Medicine (Renal Division).* Emory University, May 2018.
13. Mitochondrial damage-associated molecular patterns and decreased autophagy contribute to vascular dysfunction in hypertension. *Center for Hypertension and Personalized Medicine Workshop.* University of Toledo, February 2018.
14. Mitochondrial damage-associated molecular patterns and vascular function in hypertension. *28th Annual Vascular Biology and Hypertension Symposium.* University of Alabama at Birmingham, May 2017.
15. Toll-like receptor 9 contributes to vascular dysfunction in hypertension. *Postdoctoral Scholar Recruitment Seminar.* University of Iowa, June 2016.

PODCASTS

1. AJP-Heart and Circulatory Physiology – *Behind the Bench Episode One: Cam Squared*, December 2019.
2. AJP-Heart and Circulatory Physiology – *Proteostasis in Senescent Endothelial Cells*, April 2019.
3. Journal of Hypertension – *The Janus Face of Ketone Bodies in Hypertension*, June 2022.

SUPERVISION OF TRAINEES

Post-doctoral fellows

1. Tiago Januário da Costa, 2022-Present
    - AHA Post-doctoral Fellowship

Graduate students

1. Seth Hester: University of South Carolina Master of Biomedical Sciences, 2021-Present.
2. Gagandeep (Gary) Singh: University of Toledo Master of Science in Biomedical Science in Medical Sciences Degree (MSBS-MS), 2020-2021. Co-mentored with Dr. Bina Joe.
3. Zachary J. Schreckenberger: University of Toledo Master of Science in Biomedical Science in Medical Sciences Degree (MSBS-MS), 2018-2019. Co-mentored with Dr. Bina Joe.

Medical students

1. Scott Corley: University of South Carolina School of Medicine Student Opportunities for Academic Achievement through Research (SOAR), 2022.
2. Andrew Nielson: University of South Carolina School of Medicine SOAR, 2022.
3. Veda Gokula: University of Toledo Medical Student Research Program, 2020-2021. Co-mentored with Dr. Bina Joe.

Undergraduate students

1. Jacob Brezner: University of South Carolina College of Engineering & Computing, 2022-Present.
    - University of South Carolina Office of Undergraduate Research Magellan Journey early research grant
2. Erica Trauner: University of South Carolina College of Engineering & Computing, 2021-Present.
    - University of South Carolina College of Engineering & Computing McNair Junior Fellow (MJF)
    - University of South Carolina Office of Research Magellan Scholar
3. Avinash Singh: Sylvania Northview High School/University of Toledo Medical Research Program, 2019-2020. Co-mentored with Dr. Bina Joe.

THESIS/DISERTATION COMMITTEES

1. Colton Kostelnik: Biomedical Engineering (Ph.D.), University of South Carolina. Mentor: Dr. John Eberth.
2. Emily Waigi: Molecular Medicine (M.S.), University of Toledo College of Medicine and Life Sciences. Mentor: Dr. Camilla Ferreira Wenceslau.
3. Jonnelle M. Edwards: Molecular Medicine (Ph.D.), University of Toledo College of Medicine and Life Sciences. Mentor: Dr. Camilla Ferreira Wenceslau.

TEACHING ACTIVITIES

1. University of South Carolina Biomedical Engineering (BMEN) 345: Human Anatomy and Physiology for Biomedical Engineers, Lecturer, Spring 2023.
2. University of South Carolina Biomedical Engineering (BMEN) 548: Cardiovascular System: From Development to Disease, Lecturer, Spring 2022 and Spring 2023.
3. Training leaders Club (TLC) Summer Seminar Series organizer, Department of Physiology and Pharmacology, University of Toledo College of Medicine and Life Sciences, 2020.
4. APS PhUn week “citizen scientist”, 2015-2016, 2016-2017, and 2017-2018
5. Integrative Systems Biology Tutor, Biomedical Sciences Ph.D. Program, Medical College of Georgia at Augusta University, January-May 2013 and 2014.
6. Graduate Teaching Assistant – Instructor of jogging, volleyball, and soccer courses, Department of Health and Sport Sciences, University of Memphis, August 2009-May 2011.
7. Student Teacher, Ashe County High School, West Jefferson, North Carolina, January 2009-May 2009.
8. Physical Education Intern, Green Valley Elementary School, Boone, North Carolina, August 2008-December 2008.
9. Jogging and Conditioning Instructor, Appalachian State University, January 2008-May 2008.
10. Adapted Physical Education Intern, Appalachian State University, January 2008-May 2008.
11. Home School Teaching Intern, Appalachian State University, August 2008-December 2008.