

Phoebe Adams Stapleton, Ph.D., ATC

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Education

State University of New York College at Cortland (2002)

Department: *Exercise Science and Biology*
Major: Athletic Training and Biology
Degree Conferred: B.S.

Southern Illinois University at Edwardsville (2004)

School: Education
Department: *Kinesiology*
Concentration: Exercise Physiology and Exercise Psychology
Degree Conferred: M.S.Ed.

West Virginia University (2004-2010)

School: Medicine
Division: *Exercise Physiology*
Degree Conferred: Ph.D.

History

2000-2002	SUNY Cortland	<i>Laboratory Assistant for Anatomy and Physiology</i> <i>Laboratory Assistant for Introduction to Biology</i>
2002-2004	SIU-Edwardsville	<i>Graduate Assistant, Athletic Training, Master's Candidate</i> Department of Athletics Department of Kinesiology Advisor: Curt Lox, Ph.D.
2004-2010	West Virginia University	<i>Graduate Research Assistant, Doctoral Candidate</i> Division of Exercise Physiology Advisor: Jefferson C. Frisbee, Ph.D.
2010-2015	West Virginia University	<i>Post Doctoral Fellow</i> Department of Physiology and Pharmacology Sponsor: Timothy R. Nurkiewicz, Ph.D.
8-12/2014	Waynesburg University	<i>Instructor</i> Department of Biology, Environmental Science and Athletic Training
2/2015-present	West Virginia University	<i>Research Assistant Professor</i> Department of Physiology and Pharmacology

Research Interests and Activities

- Structural and functional microvascular changes associated with pregnancy, hypercholesterolemia, obesity, metabolic syndrome (vascular pathology).
- Impact and toxicokinetics of material and/or pharmaceutical exposures on systemic microvascular function (theranostics, cardiovascular toxicology and nanotoxicology).
- Exercise as medicine to treat lifestyle co-morbidities (exercise physiology).

Extramural Research Support - COMPLETED

3/2013-12/2015

- Vascular Consequences of Multi-Walled Carbon Nanotube Exposure
1F32 ES023435 -01A1, National Research Service Award (PI, 100% effort)
National Institute of Environmental Health Sciences
Total Costs: \$161, 802

Extramural Research Support – CURRENT

2/2015-2020

- Mitochondrial Mechanisms, Microvascular Function, and Gestational Nanotoxicology
1K99ES024783-01, Pathway to Independence Award
National Institute of Environmental Health Sciences
Total Costs: currently \$922,100

Awards/Achievements

- Young Investigator Travel Award to attend NIH Conference Small Blood Vessels: Big Health Problems?, The Microcirculation Society 2014
- Best Postdoctoral Publication Award, Postdoctoral Assembly, SOT 2014
- Outstanding Postdoctoral Fellow, Nanotoxicology Specialty Section, SOT 2014
- EJ Van Liere Research Symposium, WVU, (1st Place) 2014
- Alleghany-Erie Society of Toxicology Postdoctoral Travel Award 2013
- Postdoctoral Achievement Award, Women in Toxicology SIG, SOT 2013
- EJ Van Liere Featured Postdoctoral Fellow, WVU 2013
- DMT Postdoctoral Travel Award; Cardiovascular Toxicology Specialty Section, SOT 2012
- EJ Van Liere Research Symposium, WVU, (1st Place) 2012
- EJ Van Liere Research Symposium, WVU, (2nd Place) 2011
- WVU Graduate Student Travel Award 2009
- Kappa Delta Pi 2001
- Beta Beta Beta 2001
- Dean's List Spring1999, Spring 2000, Fall 2001
- Deo B. Colburn Education Foundation Scholarship 1997-2001

Positions/Service

- President, Alleghany-Erie Regional Chapter of the Society of Toxicology 6/2015-present
- Member, Awards Committee, Women in Toxicology SIG, SOT 6/2015-present
- Member, AHA Vascular Endo Bio 3 study section 4/2015-present
- Judge, EJ Van Liere Research Symposium, WVU 2/2015
- Member, Membership Committee, The Microcirculation Society 5/2014-present
- President-Elect, Alleghany-Erie Regional Chapter, SOT 5/2014-5/2015
- Postdoctoral Representative, Women in Toxicology SIG, SOT 4/2013-5/2015
- Fellows' Choice Visiting Speaker Committee, CCRC, WVU 3/2013-present
- Founder and Coordinator, "Coffee and Dialogue" Program,
WVU Phys. and Pharm. Dept. 2012-2014
- President (and founding member), Postdoctoral Assembly, WVU HSC 2012-2014
- Postdoctoral Representative, Alleghany-Erie Regional Chapter SOT 2011-2013

Invited Symposia

- Rutgers University, Environmental and Occupational Health Sciences Institute, Piscataway, NJ (2015): “*Gestational xenobiotic exposures: microvascular implications for the dam, fetus, and adulthood*”
- 10th World Congress for Microcirculation, Microvascular plasticity and developmental priming: impact on human health Symposium, Kyoto, Japan. (2015): “*Gestational xenobiotic exposures: microvascular implications for the past, present, and future.*”
- Louisiana State University, School of Veterinary Medicine, Department of Comparative Biomedical Sciences, Baton Rouge, LA (2015): “*Gestational xenobiotic exposures: microvascular implications for the past, present, and future*”
- Quantifying Exposure to Engineered Nanomaterials (QEEN) from Manufactured Products — Addressing Environmental, Health, and Safety Implications Workshop, Arlington, VA. Session 205A: Exposure Studies in Gaseous Media and roundtable discussion (2015): “*Microvascular implications of nanoparticle inhalation.*”
- WVU, Graduate Student Organization Symposium and Panel, Morgantown, WV. Post-Doctoral Adventures (2015): “*I didn't want to put goats on a treadmill...*”
- Federation of American Societies for Experimental Biology (FASEB), Boston, MA. American Society for Pharmacology and Experimental Therapeutics (ASPET) Symposium – Nanotoxicology: Small particles, big concerns (2015): “*Vascular consequences of nanomaterial exposure: From the heart to the fetus.*”
- WVU, Department of Physiology and Pharmacology, Morgantown, WV. (2014): “*Vascular consequences of engineered nanomaterial exposure: Looking to the future*”.
- East Carolina University, Department of Physiology, Greenville, NC (2014): “*Vascular consequences of engineered nanomaterial exposure: Looking to the future*”.
- Waynesburg University, Department of Biology, Environmental Science, and Athletic Training, Waynesburg, PA (2014): “*I didn't want to put goats on a treadmill...*”
- WVU, IRT3 Meeting, NanoSAFE, Morgantown, WV. (2014): “*Gestational engineered nanomaterial exposure*”.
- WVU, EJ Van Lier Research Symposium, School of Medicine, Morgantown, WV. (2013): “*Gestational engineered nanomaterial exposure: maternal, fetal, and future outcomes.*”
- National Institute for Occupational Safety and Health, Cardiovascular Interest Group, Morgantown, WV (2013): “*Engineered nanomaterials: Altered routes of exposure and special populations.*”
- WVU, Center for Cardiovascular and Respiratory Sciences, School of Medicine, Morgantown, WV. (2013): “*Vascular consequences of engineered nanomaterial exposure: Where to go from here?*”
- WVU, NanoSAFE, Research Experiences for Undergraduates in Multifunctional Materials, Morgantown, WV. (2013): “*Assessment of microvascular toxicity after engineered nanomaterial exposure*”.
- State University of New York at Cortland, SUNY Cortland Sports Medicine Symposium, Cortland, NY. (2012): “*I didn't want to put goats on a treadmill...*”
- West Virginia University (WVU), School of Medicine, Center for Cardiovascular and Respiratory Sciences, Morgantown, WV. (2011): “*Multi-walled carbon nanotube inhalation and sub-epicardial arterioles: a time course study*”

Publications

Peer Reviewed Manuscripts

1. Minarchick VC, **Stapleton PA**, Sabolsky E, Nurkiewicz TR. Cerium Dioxide Nanoparticles Improve Microvascular Dysfunction and Reduce Oxidative Stress in Spontaneously Hypertensive Rats. *Frontiers* (in revision)
2. Engler-Chiurazzi EB, **Stapleton PA**, Stalnaker JJ, Rambo-Hernandez KE, Sarkar SN, Jun S, Quintana DD, Ren X, Hu Heng, Nurkiewicz TR, McBride CR, Yi J, Simpkins JW. Adult Behavioral Consequences of Prenatal Engineered Nanomaterial Exposure in Rodents. *Neurotoxicology and Teratology* (in revision)
3. Nichols CE, Shepherd DL, Knuckles TL, Thapa D, Stricker JC, **Stapleton PA**, Minarchick VC, Alway SE, Nurkiewicz TR, Hollander JM. Cardiac and Mitochondrial Dysfunction Following Acute Pulmonary Exposure to Mountaintop Removal Mining Particulate Matter. *American Journal of Physiology* (In Press; October 5, 2015)
4. **Stapleton PA**, Abukabda AB, Hardy SL, Nurkiewicz TR. Xenobiotic Pulmonary Particle Exposure and Systemic Cardiovascular Response via Neurological Links: The Other White Meat. *American Journal of Physiology - Heart and Circulatory Physiology* (In Press; September 18, 2015)
5. **Stapleton PA**, McBride CR, Yi J, Nurkiewicz TR. Uterine microvascular sensitivity to nanomaterial inhalation: an in vivo assessment. *Toxicology and Applied Pharmacology* (In Press; September 14, 2015)
6. **Stapleton PA**. Gestational xenobiotic exposures: microvascular implications for the past, present, and future. *Journal of Physiology* (In Press; August 14, 2015) (*invited symposium review*)
7. **Stapleton PA**, Nichols CE, Yi J, McBride CR, Minarchick VC, Shepherd DL, Hollander JM, Nurkiewicz TR. F1 Generation microvascular consequences of gestational nanomaterial exposure. *Nanotoxicology*. 2015 Nov;9(8): 941-51.
8. Minarchick VC, **Stapleton PA**, Waldron NR, Leonard SS, Sabolsky E, Nurkiewicz TR. Microvascular Dysfunction from cerium dioxide nanoparticles is exposure route dependent. *Toxicol Sci*. 2015 Mar; 144(1): 77-89, 2015.
9. **Stapleton PA**, Nurkiewicz TR. Maternal nanomaterial exposure: a double threat to maternal uterine health and fetal development? *Nanomedicine (Lond)*. May; 9(7):929-31, 2014. (*invited editorial*)
10. **Stapleton PA**, Nurkiewicz TR. Vascular distribution of nanomaterials. *Wiley Interdiscip Rev Nanomed Nanobiotechnol*. 2014 May;6(4):338-48. (*invited review*)
11. Minarchick VC, **Stapleton PA**, Porter DW, Wolfarth MG, Çiftyürek E, Barger M, Sabolsky E, Nurkiewicz TR. Pulmonary nano-cerium dioxide exposure impairs coronary and mesenteric arteriolar reactivity. *Cardiovascular Toxicology*. Dec; 13: 323-37, 2013.
12. **Stapleton PA**, Minarchick VC, Yi J, Engels K, McBride CR, Nurkiewicz TR. Maternal engineered nanomaterial exposure and fetal microvascular function: does the Barker hypothesis apply? *Am J Obstet Gynecol*. Sep; 209(3): 227.e1-227.e11, 2013.
13. Yi J, Chen BT, Schwegler-Berry D, Frazer D, Castranova V, McBride C, Knuckles T, **Stapleton PA**, Minarchick VC, Nurkiewicz TR. Whole-body nanoparticle aerosol inhalation exposures, *J. Vis. Exp.* May; (75), 2013.
14. Knuckles TL, **Stapleton PA**, Minarchick VC, Esch L, McCawley M, Hendryx M, Nurkiewicz TR. Air pollution particulate matter collected from an appalachian mountaintop mining site induces microvascular dysfunction. *Microcirculation*. Feb; 20(2):158-169, 2013.
15. **Stapleton PA**, Minarchick VC, Cumpston AM, McKinney W, Chen BT, Sager TM, Frazer DG, Mercer RR, Scabilloni J, Andrew M, Castranova V, Nurkiewicz TR. Impairment of coronary arteriolar endothelium-dependent dilation after multiwalled-carbon nanotube inhalation: a time course study. *IJMS*. Oct; 13: 13781-13803, 2012.
16. **Stapleton PA**, Minarchick V, Knuckles TL, Nurkiewicz TR. Xenobiotic Particle Exposure and Microvascular Endpoints: A Call to Arms. *Microcirculation*. Feb; 19(2):126-42, 2012.

17. **Stapleton PA**, Goodwill AG, James ME, Brock RW, Frisbee JC. Hypercholesterolemia and Microvascular Dysfunction: Interventional Strategies. *J Inflamm.* Nov; 7(1):54, 2010.
18. Frisbee JC, Goodwill AG, **Stapleton PA**, Frisbee SJ, d'Audiffret AC. Aspirin resistance with genetic dyslipidemia: contribution of vascular thromboxane generation. *Physiol Genomics.* Aug; 42(3):331-41, 2010.
19. d'Audiffret AC, Frisbee SJ, **Stapleton PA**, Goodwill AG, Isingrini E, Frisbee JC. Depressive behavior and vascular dysfunction: a link between clinical depression and vascular disease? *J Appl Physiol.* May; 108(5):1041-51, 2010.
20. **Stapleton PA**, Goodwill AG, James ME, d'Audiffret AC and Frisbee JC. Differential Impact of Familial Hypercholesterolemia and Combined Hypercholesterolemia on Vascular Wall and Network Remodeling in Mice. *Microcirculation.* Jan; 17(1):47-58, 2010.
21. Goodwill AG, Frisbee SJ, **Stapleton PA**, James ME and Frisbee JC. Impact of chronic anti-cholesterol therapy on development of microvascular rarefaction in the metabolic syndrome. *Microcirculation.* Aug 4:1-18, 2009.
22. **Stapleton PA**, James ME, Goodwill AG, Frisbee JC. Obesity and Vascular Dysfunction. *Pathophysiology.* Aug; 15(2): 79-89, 2008.
23. Goodwill AG, **Stapleton PA**, James ME, d'Audiffret AC, Frisbee JC. Increased arachidonic acid-induced thromboxane generation impairs skeletal muscle arteriolar dilation with genetic dyslipidemia. *Microcirculation.* Oct; 15(7): 621-31, 2008.
24. **Stapleton PA**, Goodwill AG, James ME, Frisbee JC. Altered mechanisms of endothelium-dependent dilation in skeletal muscle arterioles with genetic hypercholesterolemia. *Am J Physiol Regul Intergr Comp Physiol.*, Sept; 293(3): R1110-9, 2007.

Book Chapter

1. **Stapleton PA**, Abukabda AB, Nurkiewicz TR. "Assessment of Vascular Reactivity" in: *Cardiovascular Toxicology*, of Cardiovascular Physiology 3rd edition (in preparation)
2. **Stapleton PA**, Abukabda AB, Nurkiewicz TR. "Principles of Toxicology" in: *Modern Pharmacology*, (in review)
3. **Stapleton PA**, Knuckles TL, Minarchick V, Gautam G, Nurkiewicz TR. Cardiovascular System. In: *Encyclopedia of Toxicology*, Cardiovascular System. In: Wexler, P. (Ed.), *Encyclopedia of Toxicology*, 3rd edition vol 1. Elsevier Inc., Academic Press, pp. 730-747, 2014.

*Abstracts (*denotes selected for platform presentation)*

1. Nichols CE, Hollander JM, Engels K, McBride CR, Yi J, Abukabda AB, **Stapleton PA**, Nurkiewicz TR. Maternal Nanomaterial Inhalation During Gestation Impairs Microvascular Reactivity and Alters the Fetal Genome. *The Toxicologist* (2016)
2. Minarchick VB, **Stapleton PA**, Shannahan JH, Sabolsky EM, Nurkiewicz TR, Brown JM. Endothelial Alterations and Direct Nanomaterial Interaction Influences Vascular Reactivity. *The Toxicologist* (2016)
3. Abukabda AB, **Stapleton PA**, Nurkiewicz. Nano-Titanium Dioxide Exposure Differentially Affects Segmental Vascular Reactivity. *The Toxicologist* (2016)
4. **Stapleton PA**, McBride CR, Yi J, Nurkiewicz TR. *In Vivo* Microvascular Implications of Nano-TiO₂ Inhalation Throughout Estrous and During Pregnancy. *The Toxicologist* (2016)
5. * Abukabda AB, **Stapleton PA**, Nurkiewicz. Exposure to Nano-titanium Dioxide Differentially Impacts Vascular Cholinergic Sensitivity. Research and Education in Nanotoxicology at West Virginia Interdisciplinary Graduate Education and Research Traineeship and Nanotechnology-Environmental Effects and Policy (REN@WVU-NEEP) Collaborative Symposium. (2015)

6. Simon SA, **Stapleton PA**, Abukabda AB, McBride CR, Nurkiewicz, TR. Engineered Nanomaterial Effects on the Cardiovascular Effects. West Virginia IDeA Network of Biomedical Research Excellence (WV-INBRE), Huntington, WV (2015)
7. Krupta RC, **Stapleton PA**, Abukabda AB, Minarchick VC, Nurkiewicz, TR. Impact of nanomaterial Exposure on the Reactivity of Small Arteries in the Mesentery. WVNano Research Experiences for Undergraduate, Summer Undergraduate Research Symposium, Morgantown, WV (2015)
8. Abukabda AB, **Stapleton PA**, Nurkiewicz, TR. Acute Exposure to Nano-Titanium Dioxide Differentially Impairs Endothelial Cellular Signaling. Joint Regional American Association of Pharmaceutical Scientists (AAPS) and International Society for Pharmcoeconomics and Outcomes Research (ISPOR), Morgantown WV (2015)
9. Minarchick VC, **Stapleton PA**, Sabolsky EM, Nurkiewicz TR. Cerium Dioxide Nanoparticles Improve Microvascular Dysfunction and Reduce Oxidative Stress. Alleghany-Erie Society of Toxicology (2015)
10. Abukabda AB, **Stapleton PA**, Nurkiewicz, TR. Differential Effects of Nano-Titanium Dioxide Exposure on Vascular Reactivity. Alleghany-Erie Society of Toxicology (2015)
11. * Minarchick VC, **Stapleton PA**, Sabolsky EM, Nurkiewicz TR. Determining the Anti-Oxidant Potential in Cerium Dioxide Nanoparticles. International Symposium on Organic Electronics and Bioelectronics, Clemson GA (2015)
12. Minarchick VC, **Stapleton PA**, Sabolsky EM, Nurkiewicz TR. Cerium Dioxide Nanoparticles: Pro or Anti-Oxidant Potential *In Vivo*. The Toxicologist (2015)
13. **Stapleton PA**, McBride CR, Yi J, Nurkiewicz TR. Uterine Intravital Microscopy 24-Hours After Nanosized Titanium Dioxide Exposure. The Toxicologist (2015)
14. Engler-Chiurazzi EB, Stalnaker JJ, Ren X, Hu H, Sarkar SN, Jun S, Quintana DD, **Stapleton PA**, Nurkiewicz TR, McBride CR, Simpkins JW. Adult Behavioral Consequences of Prenatal Nanomaterial Exposure. Van Liere Research Day (2015)
15. Abukabda AB, **Stapleton PA**, Nurkiewicz, TR. Dose-Dependent Effect of Nano-Titanium Dioxide Exposure on Aortic Reactivity. West Virginia University, Van Liere Research Day (2015)
16. Minarchick VC, **Stapleton PA**, Sabolsky EM, Nurkiewicz TR. Cerium Dioxide Nanoparticles Display Microvascular Anti-Oxidant Activity *In Vivo*. Van Liere Research Day (2015)
17. Engler-Chiurazzi EB, Stalnaker JJ, Ren X, Hu H, Sarkar SN, Jun S, Quintana DD, **Stapleton PA**, Nurkiewicz TR, McBride CR, Simpkins JW. Adult Behavioral Consequences of Prenatal Titanium Dioxide Nanoparticle Inhalation Exposure. Society for Neuroscience (2014)
18. * Minarchick VC, **Stapleton PA**, Fix NR, Leonard SS, Sabolsky EM, Nurkiewicz TR. Determining a Mechanistic Link Between Cerium Dioxide Nanoparticles and Arteriolar Dysfunction. Alleghany-Erie Society of Toxicology (2014)
19. **Stapleton PA**, Nichols CE, Yi J, Minarchick VC, Hollander JM, Nurkiewicz TR. Gestational Nanomaterial Exposure. Alleghany-Erie Society of Toxicology (2014)
20. * Engler-Chiurazzi, EB, Stalnaker, JJ, **Stapleton, PA**, Nurkiewicz, TR, Simpkins, JW. Behavioral Consequences of Prenatal Titanium Dioxide Nanoparticle Inhalation Exposure. Alleghany-Erie Society of Toxicology (2014)
21. Minarchick VC, **Stapleton PA**, Fix NR, Leonard SS, Sabolsky EM, Nurkiewicz TR. Nanomaterial Exposure Route Differentially Affects Microvascular Function. NanoSAFE Bioelectronics and Biosensing Symposium. (2014)
22. **Stapleton PA**, Nichols CE, Yi J, Minarchick VC, Hollander JM, Nurkiewicz TR. Gestational Nanomaterial Exposure: what does the future hold? The Toxicologist (2014)
23. Minarchick VC, **Stapleton PA**, Fix NR, Leonard SS, Sabolsky EM, Nurkiewicz TR. Nano-Cerium Dioxide Exposure and Arteriolar Dysfunction: What is the Mechanism? The Toxicologist (2014)
24. **Stapleton PA**, Minarchick VC, Yi J, Frisbee JC, Nurkiewicz TR. Engineered Nanomaterial Exposure and the Metabolic Syndrome. The Toxicologist (2014)

25. Minarchick VC, **Stapleton PA**, Fix NR, Leonard SS, Sabolsky EM, and Nurkiewicz TR. Cerium Dioxide Nanoparticles: Determining the Source of Microvascular Dysfunction. West Virginia University, Van Liere Research Day (2014)
26. **Stapleton PA**, Nichols CE, Yi J, Minarchick VC, Hollander JM, Nurkiewicz TR. Gestational nanomaterial exposure and the Barker Hypothesis: What may the future hold? West Virginia University, Van Liere Research Day (2013)
27. Aippersbach SM, **Stapleton PA**, Minarchick VC, Nurkiewicz TR. Do nanomaterials cause vasoactive substances in the blood? WVNano Research Experiences for Undergraduate, Summer Undergraduate Research Symposium (2013)
28. ***Stapleton PA**, Minarchick VC, Yi J, McBride CR, Engels K, Nurkiewicz TR. Engineered Nanomaterial Exposure During Gestation: Could the Barker Hypothesis be at Play? Alleghany-Erie Society of Toxicology (2013)
29. Minarchick VC, **Stapleton PA**, Waldron NR, Porter DW, Sabolsky EM, Nurkiewicz TR. Free Radical Generation: A Potential Mechanism for Arteriolar Dysfunction Following Cerium Dioxide Nanoparticle Exposure. Alleghany-Erie Society of Toxicology (2013)
30. **Stapleton PA**, Chen BT, Mercer RR, Scabilloni J, Castranova V, Nurkiewicz TR. Direct interaction between multi-walled carbon nanotubes and the coronary microcirculation. *The Toxicologist*. (2013)
31. **Stapleton PA**, Minarchick VC, Yi J, McBride CR, Engels K, Nurkiewicz TR. Does the Barker Hypothesis apply to maternal nanomaterial exposure and fetal microvascular function? *The Toxicologist* (2013)
32. Minarchick VC, **Stapleton PA**, Sabolsky EM, Nurkiewicz TR. Nano-Cerium Dioxide Exposure and Arteriolar Dysfunction: Exposure Route Dependency. *The Toxicologist*. (2013)
33. ***Stapleton PA**, Minarchick VC, Yi J, Nurkiewicz TR. Gestational engineered nanomaterial exposure: maternal, fetal, and future outcomes. West Virginia University, Van Liere Research Day (2013)
34. Spears KS, **Stapleton PA**, Minarchick VC, Knuckles TL, Nurkiewicz TR. Comparison of titanium dioxide, zinc oxide, and multi-walled carbon nanotubes on arteriolar system. WVNano Research Experiences for Undergraduate, Summer Undergraduate Research Symposium (2012)
35. **Stapleton PA**, Minarchick V, Cumpston A, McKinney W, Chen BT, Frazer D, Castranova V, Nurkiewicz TR. Thinking outside the lung: Alternate routes of nanoparticle exposure. Alleghany-Erie Society of Toxicology. (2012)
36. Minarchick V, **Stapleton P**, Porter DW, Sabolsky E, Nurkiewicz T. Dose Exposure Route Matter: Assessing the Effects of Nano-Cerium Dioxide Exposure on Arteriolar Reactivity. Alleghany-Erie Society of Toxicology. (2012)
37. Knuckles T, **Stapleton P**, Minarchick V, McCawley M, Esch L, Nurkiewicz T. Systemic Microvascular Dysfunction Induced by Ambient Mountain Top Mining Particulate Matter. Alleghany-Erie Society of Toxicology. (2012)
38. ***Stapleton PA**, McBride CR, Chen BT, Castranova V, Nurkiewicz TR. Effects of multi-walled carbon nanotube cocubation on vascular reactivity and nitric oxide (NO) bioavailability. *The Toxicologist*. (2012)
39. ***Stapleton PA**, Minarchick V, Cumpston A, McKinney W, Chen BT, Frazer D, Castranova V, Nurkiewicz TR. Thinking outside the lung: Alternate routes of nanoparticle exposure. *The Toxicologist*. (2012)
40. Knuckles T, **Stapleton P**, Minarchick V, McCawley M, Esch L, Nurkiewicz T. Ambient Mountain Top Mining Particulate Matter Alters Systemic Microvascular Function. *The Toxicologist*. (2012)
41. ***Minarchick V, Stapleton P**, Porter D, Sabolsky E, Nurkiewicz T. Pulmonary nanoceria exposure impairs coronary and mesenteric arteriolar reactivity. *The Toxicologist*. (2012)
42. Minarchick VC, **Stapleton PA**, Porter DW, Sabolsky EM, and Nurkiewicz TR. Nano Cerium Dioxide (CeO₂) Exposure Impairs Mesenteric Arteriolar Reactivity. West Virginia University, Van Liere Research Day (2012)

43. **Stapleton PA**, Minarchick V, Chen BT, Cumpston A, McKinney W, Frazer D, Castranova V, Nurkiewicz TR. Thinking outside the lung: Biomedical nanoparticle exposure. West Virginia University, Van Liere Research Day (2012)
44. **Stapleton PA**, Minarchick V, Cumpston A, McKinney W, Chen BT, Sager T, Frazer D, Castranova V, Nurkiewicz TR. Multi-walled carbon nanotube impairment of microvascular sub-epicardial arteriolar endothelium-dependent dilation: a time course study; Alleghany-Erie Society of Toxicology. (2011)
45. ***Stapleton PA**, Minarchick V, Cumpston A, McKinney W, Chen BT, Frazer D, Castranova V, Nurkiewicz TR. Time-Course of impaired coronary arteriolar endothelium-dependent dilation after multi-walled carbon nanotube inhalation; *The Toxicologist*. (2011)
46. **Stapleton PA**, Goodwill AG, Morrisette MR, James ME, Frisbee JC. Impaired Arteriolar Dilation in a Mouse Model of Familial Hypercholesterolemia: Impact of Chronic Exercise and Anti-Cholesterol Therapy. *FASEB J*. 24:593.5 (2010)
47. ***Beckett JAL**, James ME, **Stapleton PA**, Goodwill AG, d'Audiffret AC, Frisbee JC. Insulin Resistance-Independent Impairments to Arterial Endothelial Function with Depressive Symptoms in Mice *FASEB J*. 24:1044.3 (2010)
48. Goodwill AG, **Stapleton PA**, Frisbee SJ, James ME, d'Audiffret AC, Frisbee JC. Increased Vascular Generation of Thromboxane A₂: an Initiating Condition for Microvascular Rarefaction in Obese Zucker Rats? *FASEB J*. 24:774.19 (2010)
49. Goodwill AG, **Stapleton PA**, Frisbee SJ, Frisbee JC. Obesity-Induced Increased Vascular Thromboxane A₂ Generation an Initiating Stimulus for Microvascular Rarefaction? *Microcirculation World Congress*, (2010)
50. Frisbee J, Goodwill AG, **Stapleton PA**, Frisbee SJ, d'Audiffret AC. Aspirin Resistance with Genetic Dyslipidemia: Contribution of Vascular Thromboxane Generation. *Microcirculation World Congress* (2010)
51. Mahmoud OM, **Stapleton PA**, Frisbee JC, d'Audiffret AC, Mukdadi OM. Simple fast noninvasive technique for measuring brachial wall mechanics during flow mediated vasodilatation analysis; *Progress in Biomedical Optics and Imaging - Proceedings of SPIE 7265* , art. no. 72650T (2009)
52. ***Stapleton PA**, d'Audiffret AC, Frisbee SJ, Frisbee JC. Correlation Between Peripheral Vascular Function, Markers of Inflammation, and Depression in Human Subjects; *FASEB J*. 23:795.3. (2009)
53. Goodwill AG, **Stapleton PA**, James ME, d'Audiffret AC, Frisbee JC. Increased arachidonic acid-induced thromboxane generation impairs skeletal muscle arteriolar dilation with genetic dyslipidemia. *FASEB J*. 23:766.3. (2009)
54. **Stapleton PA**, Goodwill AG, James ME, Frisbee JC. Altered mechanisms of endothelium-dependent dilation with dyslipidemia in skeletal muscle arterioles with genetic hyperlipidemia. *WVU Physiology, Julie Betschart Research Symposium*. (2008)
55. Mahmoud OM, **Stapleton PA**, Frisbee JC, Mukdadi OM. Noninvasive Measurement of Brachial Wall Mechanics During Flow-Mediated Vasodilation Using 2D Ultrasound Strain Tensor Imaging; *ASME Summer Bioengineering Conference*. (2008)
56. Frisbee J, Goodwill AG, **Stapleton PA**, James ME, Bryner RW, Frisbee SJ. Metabolic Syndrome and Microvascular Rarefaction: Contributions from Nitric Oxide and Inflammation; *25th Conference of the European Society for Microcirculation*. (2008)
57. **Adams P**, Nader GA, Visich PS, Pistilli EE, Gutmann L, Lilly C, Hoffman EP, Gordon PM. Acute Apoptotic Transcriptional Responses to Resistance Exercise Training; *FASEB J*. 20:A398 (2006)
58. Nader GA, **Adams P**, Pistilli E, Guttman L, Gordan PM, Hoffman EP. Skeletal muscle remodeling during hypertrophy involves the coordinated expression of growth and atrophy genes; *FASEB J*. 20:A392 (2006)

59. **Adams P**, Lox CL, Pawlow L, Covington NK, Butki BD, Gordon PM. Body Image Concerns and Cosmetic Surgery in Female Intercollegiate Athletes; American College of Sports Medicine. (2005)

Teaching Activities

Year (Semester)	Course Title	Role	Class Profile	Lecture Hours
2015 (F)	<i>MSI Problem-Based Learning</i>	Small Group Facilitator	8-10 medical students	3
2014 (F)	<i>Therapeutic Modalities (ATP 306)</i>	Primary Instructor	14 undergraduate pre-professional students	48 (lecture) 32 (laboratory)
2013 (Sp)	<i>Exercise Physiology (EXPH 364)</i>	Team Instructor	76 undergraduate students	15
2012 (F)	<i>Exercise Physiology 1 (EXPH 365)</i>	Team Instructor	5 undergraduate students	15
2012 (Sp)	<i>Exercise Physiology (EXPH 364)</i>	Team Instructor	55 undergraduate students	15
2012 (Sp)	<i>Exercise Physiology (EXPH 365)</i>	Team Instructor	60 undergraduate students	15
2011 (F)	<i>Exercise Physiology (EXPH 364)</i>	Team Instructor	75 undergraduate students	15
2011 (F)	<i>Exercise Physiology 1 (EXPH 365)</i>	Team Instructor	45 undergraduate students	6
2011 (Sp)	<i>Exercise Physiology (EXPH 364)</i>	Team Instructor	30 undergraduate students	15
2011 (Sp)	<i>Exercise Physiology 1 (EXPH 365)</i>	Team Instructor	45 undergraduate students	6
2010 (F)	<i>Exercise Physiology 1 (EXPH 365)</i>	Team Instructor	45 undergraduate students	6
2010 (Sp)	<i>Exercise Physiology 1 (EXPH 365)</i>	Team Instructor	30 undergraduate students	6
2010 (Sp)	<i>Kinesiology</i>	Guest Lecturer	35 undergraduate students	3
2010 (Sp)	<i>Exercise Physiology 2 (EXPH 567)</i>	Team Instructor	15 graduate students	10
2009	<i>Human Function</i>	Small Group Facilitator	15-20 medical students	15
2003	<i>Therapeutic Modalities</i>	Primary Instructor	5 undergraduate students in preparation for NATABOC exam	30

Student Mentorship and Supervision

- Alaeddin Abukabda, Graduate Student Fall 2014-present
- Spencer Duffey, Pharmacy Student, Research Internship Fall 2014-present
- Andrew Nickerson, Graduate Research Rotation Fall 2015
- Samantha Simon, WVU INBRE and Health Science Technology Academy (HSTA) Program, University High School, Morgantown WV Summer 2015
- Rebekah Krupta, Research Experience for Undergraduates, WVU NanoSAFE Summer 2015

- Dr. Valerie Minarchick, Graduate Student Spring 2010-Summer 2015
- Matt Potorti, Undergraduate Research Experience Fall 2014
- Quincy Hathaway, Research Experience for Undergraduates WVU NanoSAFE Summer 2014
- Ashley Kerr, Graduate Research Rotation Spring-Summer 2014
- Gaurav Gautam, Undergraduate Research Experience Summer 2013
- Shannon Aippersbach, Research Experience for Undergraduates WVU NanoSAFE Summer 2013
- Katie Spears, Research Experience for Undergraduates, WVU NanoSAFE Summer 2012
- Cody Nichols, Graduate Research Rotation Spring 2012
- Jonathon Bourne, Graduate Research Rotation Fall 2011
- Nick Mazzone, Undergraduate Exercise Physiology Internship Summer 2011
- Catherine Kinzer, Graduate Research Rotation Spring 2010
- Sara Fournier, Graduate Research Rotation Spring 2010
- Joshua Butcher, Graduate Research Rotation Spring 2010
- Paula Prentice, Graduate Basic Science Research Rotation Fall 2009-Spring 2010
- Stavros Astas, Graduate Research Rotation Spring 2009 – Summer 2009
- Jordan Beckett, WVU INBRE Program, WV Wesleyan (WV SOM) Summer 2009-Summer 2010
- Katie McGregor, WVU INBRE Program, Davis and Elkins College Summer 2007
- Hanna Lawther, Independent Study/Undergraduate Research Experience Spring 2006

Professional Journal Activities

Editorial Board

- 2012 - present: *Frontiers in Vascular Physiology*

Ad Hoc Reviewer (*denotes independent review)

- *American Journal of Physiology:*
 - *Lung, Cellular and Molecular Physiology*
- *Environmental Health Perspectives*
- *Cardiovascular Toxicology**
- *Chemosphere**
- *Inhalation Toxicology*
- *Journal of Nanomedicine and Nanotechnology**
- *Journal of Toxicology and Environmental Health*
- *Journal Of Visualized Experiments*
- *Life Sciences*
- *Medicine and Science in Sports and Exercise*
- *Molecules **
- *Microcirculation*
- *Nanomedicine*
- *Nanotoxicology**
- *Nigerian Medical Journal**
- *Particle and Fibre Toxicology*
- *PLoS ONE**
- *Reproductive Toxicology**
- *Toxicology and Applied Pharmacology**
- *WIREs Nanomedicine and Nanobiotechnology*
- *Toxicological Sciences**

Memberships (Past and Current)

- American College of Sports Medicine
- American Heart Association
- National Athletic Trainers' Association (BOC#: 030303086)
- The Microcirculation Society
- Society of Toxicology
 - Cardiovascular Toxicology Specialty Section
 - Nanotoxicology Specialty Section
 - Reproductive Toxicology Specialty Section
 - Women in Toxicology Special Interest Group
 - Allegheny-Erie Regional Chapter

Participation in National and International Scientific Meetings

National

- National Athletic Trainers' Association Annual Meeting (2003, 2004, 2006, 2010)
- FASEB: Experimental Biology Annual Meeting (2006, 2009, 2010, 2015).
- Microcirculatory Society: Annual Meeting (2009, 2010, 2015).
- Society of Toxicology Annual Meeting (2011-2015).
- Allegheny-Erie Regional Chapter of the Society of Toxicology Annual Meeting (2011-2015).

Continuing Education Symposia/Webinar

- Small Blood Vessels: Big Health Problems? NIH Conference, Bethesda, MD (9/2014)
- Nonclinical Animal Models Enabling Biopharmaceutical Advances in Translational Medicine Continuing Education Course, Society of Toxicology (3/2014)
- Grant Writers' Seminar and Workshop (6/2012-1/2014)
- Gonadal Development, Function, and Toxicology, Continuing Education Course, Society of Toxicology (3/2013)
- Finding Funding for Early Career Scientist, Society of Toxicology Webinar (9/2012)
- Functional Cardiovascular Assessment in Laboratory Models, The Ohio State University, Columbus, OH (6/2012)
- Health Effects of Ultrafine Particles, Environmental Protection Agency Webinar (12/2010)