Megan Kathleen Rhoads

Curriculum Vitae

3044 River Run Trail

Lexington, KY 40511

859.948.4352

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**Education**

*University of Kentucky, Lexington, KY*

PhD Candidate, Biology (2012 – present)

 GPA: 3.7

 Expected Graduation Date: May 2018

*Western Kentucky University, Bowling Green, KY*

Bachelor of Science, Biology (2004 – 2008)

 GPA: 3.33

**Fellowships & Awards**

*American Heart Association Council on Hypertension Poster Competition Winner* (2017)

*American Physiological Society Teaching Section Abstract Award* (2017)

*American Heart Association Great Rivers Predoctoral Fellowship*

16PRE30010011 (2016-2018)

*American Physiological Society Porter Physiology Fellowship* (2016, declined due to AHA)

*American Physiological Society Porter Physiology Travel Fellow* (2016, 2017)

*American Physiological Society Caroline tum Suden Award* (2016)

*UK Department of Biology Gertrude Flora Ribble Foundation Mini-Grant* (2015, 2016)

*University of Kentucky Lyman T Johnson Fellow* (2014, 2015)

*Western Kentucky University Presidential Scholar* (2004 - 2008)

**Memberships & Service**

American Association of the Advancement of Science (2012 - present)

American Heart Association (2014-present)

American Physiological Society (2012 - present)

 Communications Committee (2017-2019)

Biology Graduate Student Association (2012- present)

 Secretary (2015)

 Graduate Affairs Committee Representative (2016-2017)

International Society of Hypertension (2015-present)

**Teaching Experience**

*Teaching Assistant* (Fall 2013, Summer 2014, Fall 2015)

 Primary Instructor for Biology 304: Genetics

*Teaching Assistant* (Spring 2015)

 Primary Instructor for Biology 315: Cell Biology

*Teaching Assistant* (Spring 2013, Spring 2014, Spring 2016)

Primary Instructor for Biology 350: Animal Physiology

*Teaching Assistant* (Fall 2012)

Primary Instructor for Biology 111: Introductory laboratory for non-majors

**Educational Outreach**

*BioBonanza Volunteer* (2016)

*Girls Science Club Speaker* (2016)

*Science Fair Judge* (2013-present)

 Judge at multiple Fayette County science fairs

*GearUP! Kentucky* (2013)

Speaker for Biology department

*LHC Mentor Program for Soulsville Charter School* (2010)

Mentor of two sophomore girls in Memphis, TN charter school

*Girls Getting Wired* (2009 - 2010)

Main Coordinator and Instructor for a joint venture between Best Buy and The Yvette George Show to educate inner-city women and their daughters about current technology

**Publications:**

1. Franklin, B. M., Xiang, L., Collett, J. A., **Rhoads, M. K.**, & Osborn, J. L. (2015). Open Problem-Based Instruction Impacts Understanding of Physiological Concepts Differently in Undergraduate Students. *Advances in Physiology Education,* *39(4),*  327-334
2. **Rhoads, M. K.**, Goleva, S. B., Beierwaltes, W. H., & Osborn, J. L. (2017). Renal Vascular and Glomerular Pathologies Associated with Spontaneous Hypertension in the Non-human Primate Chlorocebus aethiops sabaeus. *American Journal of Physiology- Regulatory, Comparative, and Integrative Physiology,* *313(3),* R211-R218

**Published Abstracts:**

(\*Presenting Author)

1. **Megan K Rhoads\***, Caitlin Morrisey, Lexi Sunnenberg, and Jeffrey L Osborn. “Differential Impacts of Environmental Salinity on *Procambarus clarkii* and *Orconectes rusticus*” Experimental Biology, Boston, MA April 2013.
2. Alexandra K Guest\*, **Megan K Rhoads**, and Jeffrey L Osborn. “Seasonal essential hypertension in *Chlorocebus aethiops sabaeus*, the vervet monkey” National Council on Undergraduate Research, Lexington KY, April 2014
3. **Megan K Rhoads\***, Amy Beierschmitt, Denise Huggins, Jason A Collett, and Jeffrey L Osborn. “Spontaneous essential hypertension in the non-human primate *Chlorocebus aethiops sabaeus*, the African Green Monkey” Experimental Biology, San Diego, CA April 2014
4. Jason A Collett\*, **Megan K Rhoads**, Amy Beierschmit, John Dascanio, Harm J Knot, and Jeffrey L Osborn. “Circadian Measurement of Blood Pressures and Core Body Temperatures in Conscious, Freely Moving Vervet Monkeys” Experimental Biology, San Diego, CA April 2014
5. **Megan K Rhoads\***, Slavina B Goleva, Amy Beierschmitt, and Jeffrey L Osborn. “Altered Renal and Cardiac Morphology in a Non-Human Primate of Spontaneous Essential Hypertension” High Blood Pressure Research Scientific Sessions, San Francisco, CA September 2014
6. Jeffrey L Osborn\*, **Megan K Rhoads**, Jason A Collett, Amy Beierschmitt, John Dascanio, Harm J Knot. “A Unique Telemetric Method for Long-term Measurement of Blood Pressure and Core Body Temperature in Hypertensive and Normotensive Non-Human Primates” High Blood Pressure Research Scientific Sessions, San Francisco, CA September 2014
7. **Megan K Rhoads\***, Slavina B Goleva, Amy Beierschmitt, and Jeffrey L Osborn. “Spontaneous Hypertension and Cardiorenal Pathologies in the African Green Monkey” Experimental Biology, Boston, MA March 2015
8. Slavina B Goleva\*, **Megan K Rhoads**, and Jeffrey L Osborn. “Renal Specific Upregulation of Mitochondrial Genes in Old World African Green Monkeys with Essential Hypertension.” Experimental Biology, Boston, MA March 2015
9. Brandon M Franklin\*, Lin Xiang, Jason A Collett, **Megan K Rhoads**, and Jeffrey L Osborn. “Open inquiry-based learning elicits deeper understanding of complex physiological concepts compared to traditional lecture-style or guided-inquiry learning methods.” Experimental Biology, Boston, MA March 2015
10. Jeffrey L Osborn\*, **Megan K Rhoads**, Jason A Collett, Amy Beierschmitt, John Dascanio, and Harm J Knot. “Long-term telemetric blood pressure measurement in a translational model of non-human primate spontaneous hypertension.” Experimental Biology, Boston, MA March 2015
11. **Megan K Rhoads\*** and Jeffrey L Osborn. “Specific Renal Outer Medulla Upregulation of α- and β- adrenergic receptors in Spontaneously Hypertensive African Green Monkeys” Council on Hypertension Scientific Sessions, Washington D.C. September 2015
12. Slavina B Goleva\*, **Megan K Rhoads**, and Jeffrey L Osborn. “OXPHOS Gene Expression in Renal Cortex, Outer Medulla, and Inner Medulla of Non-Human Primates with Spontaneous Hypertension” Council on Hypertension Scientific Sessions, Washington D.C. September 2015
13. **Megan K Rhoads\***, Caroline Munhoz, and Jeffrey L Osborn. “Both Alpha and Beta Adrenergic Receptor Expression Is Increased in the Renal Medulla of Spontaneously Hypertensive African Green Monkeys.” Experimental Biology, San Diego, CA April 2016
14. Brandon M Franklin\*, Lin Xiang, Jiffin Paulose, Jason A Collett, **Megan K Rhoads**, and Jeffrey L Osborn. “Problem-Based Learning is a More Effective Method at Developing Critical Reasoning Skills When Compared to Traditional Instructional Methods.” Experimental Biology, San Diego, CA April 2016
15. Alex Gutierrez\*, Slavina B Goleva, **Megan K Rhoads**, Chelsea C Weaver, William H Beierwaltes, and Jeffrey L Osborn. “The Renin-Angiotensin System and Sodium Handling in a Non-Human Primate Model of Spontaneous Hypertension” Experimental Biology, San Diego, CA April 2016.
16. Slavina B Goleva\*, **Megan K Rhoads**, and Jeffrey L Osborn. “Renal Specific Downregulation of OXPHOS Transcription Factors and Mitochondrial Respiratory Dysfunction in Nonhuman Primate Spontaneous Hypertension.” Experimental Biology, San Diego, CA April 2016.
17. **Megan K Rhoads**\* and Jeffrey L Osborn. “Increased Cardiac and Renal Adrenergic Receptor Expression in Spontaneously Hypertensive Caribbean Vervets.” Council on Hypertension Scientific Sessions, Orlando, FL September 2016
18. **Megan K Rhoads**\*, Lin Xiang, Brandon M Franklin, and Jeffrey L Osborn. “Problem-based Learning Increases Motivation and Learning Strategy Use in Both Low- and High-achieving Students in an Upper-level Undergraduate Physiology Course.” Experimental Biology, Chicago, IL April 2017
19. **Megan K Rhoads**\*, Chelsea C Weaver and Jeffrey L Osborn. “Sex and Hypertension in the African Green Monkey, a Translational Model of Human Cardiovascular Disease.” Experimental Biology, Chicago, IL April 2017
20. Chelsea C Weaver\*, **Megan K Rhoads**, Justin L Grobe and Jeffrey L Osborn. “Altered Water Homeostasis in a Novel Non-human Primate Model of Gestational Hypertension.” Experimental Biology, Chicago, IL April 2017
21. **Megan K Rhoads\*** and Jeffrey L Osborn. “Prevalence of Spontaneous Hypertension in African Green Monkeys is Age-related.” Council on Hypertension Scientific Sessions, San Francisco, CA September 2017
22. **Megan K Rhoads\*** and Jeffrey L Osborn. “Hypertensive and Pre-Hypertensive African Green Monkeys Display Increased Proteinuria.” Experimental Biology, San Diego, CA April 2018
23. **Megan K Rhoads\***, Chelsea C Weaver, and Jeffrey L Osborn. “APOL1-like gene insertion associated with increased blood pressure in the African Green Monkey.” Experimental Biology, San Diego CA April 2018

**Oral Presentations**

1. **Megan K Rhoads\***, Slavina B Goleva, Amy Beierschmitt, and Jeffrey L Osborn. “Spontaneous Hypertension and Cardiorenal Pathologies in the African Green Monkey” Experimental Biology, Boston, MA March 2015
2. **Megan K Rhoads**\*, Chelsea C Weaver and Jeffrey L Osborn. “Sex and Hypertension in the African Green Monkey, a Translational Model of Human Cardiovascular Disease.” Experimental Biology, Chicago, IL April 2017
3. **Megan K Rhoads\*** and Jeffrey L Osborn. “Hypertensive and Pre-Hypertensive African Green Monkeys Display Increased Proteinuria.” Experimental Biology, San Diego, CA April 2018

**Undergraduate Students Mentored**

Richard Bradford, Alltech (2012)

Alexandra Guest, North Carolina Department of Natural Resources (2013)

Slavina Goleva, 2014 & 2015 APS USRG, Vanderbilt University School of Medicine (2013-2016)

Nicole Mashni, Pikeville College of Osteopathic Medicine (2014)

Chelsea Lawson, Vanderbilt University School of Medicine (2014-2015)

Anna Swigert, Tulane University School of Medicine (2014-2015)

Caroline Munhoz, Federal University of Pelotas (2015)

Alex Gutierrez, 2015 APS STRIDE Fellow, University of Louisville School of Medicine (2015-2016)

Joseph Caldwell, 2016 Gertrude Flora Ribble Scholar, University of Kentucky (2016)

Efe Disi, 2016 STEP-UP APS/NIDDK Fellow, University of Kentucky (2016)

Emma Bateman, University of Kentucky (2017-present)

Lucas Barrett, University of Kentucky (2017-present)

Sushovan Dixit, University of Kentucky (2017-present)