

## CURRICULUM VITAE

Alexandra M. Garvin, Ph.D.

### **Education**

- 2010-2016 Ph.D. in Physiology Intercollege Graduate Degree Program, Penn State University, University Park, PA (December 2016)  
Dr. Donna H. Korzick, Dissertation Advisor  
Dissertation: "Mitochondria as Central Mediators of Cardiac Cell Death with Ischemia and Reperfusion Injury in Aged Female Rats"
- 2005-2009 B.S. in Biology, Clemson University, Clemson, SC

### **Work Experience**

- 2023-present** **Assistant Professor**, Department of Physiology, East Carolina University Brody School of Medicine, Greenville, NC
- 2017-2022 Postdoctoral Research Fellow, Department of Basic Medical Sciences, University of Arizona College of Medicine, Phoenix, AZ (appointment began August 2017)
- 2017 Postdoctoral Researcher, Department of Kinesiology, Penn State University, University Park, PA (January-July 2017)
- 2010-2016 Ph.D. Candidate in Physiology Intercollege Graduate Degree Program, Penn State University, University Park, PA (degree conferred December 2016)
- 2016, Fall Laboratory Instructor, Department of Biology, Penn State University, University Park, PA  
Course: BIOL 142 (Physiology Laboratory)
- 2016, Spring Teaching Assistant, Department of Kinesiology, Penn State University, University Park, PA  
Course: KINES 457 (Exercise Prescription)
- 2011-2012 Laboratory Instructor, Department of Biology, Penn State University, University Park, PA  
Courses: BIOL 142 (Physiology Laboratory) and BIOL 473 (Laboratory in Mammalian Physiology)
- 2009-2010 Physical Therapy Aide, Wallace and Glick, Fort Washington, PA
- 2009-2010 Outpatient Surgery Volunteer, Paoli Hospital, Paoli, PA
- 2008-2009 Undergraduate Research, Department of Biology, Clemson University
- 2006 Pharmaceutical Intern, Centocor, Horsham, PA

### **Honors and Awards**

- 2021 Arizona Physiological Society Annual Meeting, Postdoctoral Oral Presentation 3<sup>rd</sup> place
- 2021 International Society for Heart Research NAS, Michael Bristow Travel Award
- 2020 APS Cardiovascular Section Research Recognition Award- only 9 awards given out each year
- 2019 Arizona Postdoctoral Research Conference, runner up poster award

2019 American Society for Matrix Biology, Travel Award

2018 Arizona Physiological Society Annual Meeting, Postdoctoral Poster 1<sup>st</sup> place

2018 American Society for Pharmacology and Experimental Therapeutics, Postdoctoral Scientist Travel Award

2017 Arizona Physiological Society Annual Meeting, Postdoctoral Poster 1<sup>st</sup> place

2016 Alumni Association Dissertation Award, Penn State University –13 awarded campus-wide

2014 APS Caroline tum Suden/Francis Hellebrandt Professional Opportunity Award

2012 Pennsylvania State University Annual Graduate Exhibition, Health and Life Sciences Division, 3rd place

2011 Student Research Award Recipient from the Wolff Fund, Penn State University

2010-2011 Excellence in the Recruiting Process Scholarship, Penn State University

### **Research Support**

#### *Ongoing:*

01/2023-06/2026 New faculty start-up  
 PI: Alexandra Garvin \$695,800

#### *Completed:*

01/2022-12/2022 UArizona Sarver Heart Center Grant  
Prohibitin as a Novel Therapeutic Target for Cardiac Fibrosis  
 Primary Investigator: Alexandra Garvin Direct Costs: \$20,000  
 Type: Novel Research Project Award in the area of Cardiovascular Disease and Medicine.  
 The major goal of this project is to specifically interrogate how altered mitochondrial prohibitin protein expression impacts the viability of maladaptive cardiac fibroblasts and the development of heart failure.

01/2021-01/2023 HL007249-44  
Suppression of Cardiac Fibroblast Mitochondrial Function and the Impact on Activation and Susceptibility to Cell Death in the Hypertensive Heart  
 Type: T32 Ruth L. Kirschstein Institutional National Research Service Award  
 The major goal of this project is to determine the degree to which global downregulation of mitochondrial genes reduces cardiac fibroblast mitochondrial respiration and increases susceptibility to cell death upon activation.

07/2020-06/2022 UACOM-P Postdoctoral Research Development Grant  
Rodent Microsurgery and Hemodynamic Measurement Training Opportunity  
 Primary Investigator: Alexandra Garvin Direct Costs: \$1500  
 Type: New Skills Training PRDG  
 The major goal of this project is to develop and expand expertise in cardiac function assessments to enhance my research skills, increase my independence, and advance my career. *\*Obtained an extension to use funds toward independent research due to COVID related travel restrictions.*

01/2019-12/2020 19POST34410055  
Impact of Prior ACE inhibition on Fibroblast-Mediated Cardiac Inflammation and Remodeling Post-Myocardial Infarction  
 Primary Investigator: Alexandra Garvin Direct Costs: \$106,532  
 Type: American Heart Association Postdoctoral Fellowship

The major goal of this project is to determine the impact of prior ACEI treatment on the time course of inflammation post-MI and the involvement of the NLRP3/IRAK-M cascade both *in vivo* and in isolated cardiac fibroblasts.  
Percentile rank: 11.95% Payline: 38.55% Priority Score: 1.39

09/2012-09/2015

AG044132

Mitochondrial Mechanisms of Programmed Necrosis in the Aged Female Heart

Primary Investigator: Alexandra Garvin Direct Costs: \$139,507

Type: F31 (Ruth L. Kirschstein NRSA Predoctoral Fellowship)

The major goal of this project is to test the hypothesis that programmed necrosis, resulting in reduced mitochondrial respiration and altered signaling downstream of kinases RIP1 and RIP3, is a key regulator of cell death in the aged female rat heart following ischemia/reperfusion injury. (Score: 13)

## Publications

### *Peer-Reviewed Articles:*

1. **Garvin AM**, DB Floyd, AC Bailey, ML Lindsey, CC Carroll, TM Hale. Transient Angiotensin Converting Enzyme Inhibition Confers Sex-Specific Protection Against Angiotensin II-Induced Cardiac Remodeling. *American Journal of Physiology Cell Physiology*. *Manuscript in progress*.
2. **Garvin AM**, LE Katwa. Primary Cardiac Fibroblast Cell Culture: Methodological Considerations for Physiologically Relevant Conditions. *American Journal of Physiology Heart and Circulatory Physiology*, September 2023.
3. **Garvin AM**, TM Hale. Sex matters in the aging heart: implications for antifibrotic therapies. *American Journal of Physiology Heart and Circulatory Physiology*, July 2022.
4. **Garvin AM**, TM Hale. State of Change: epigenetic and mitochondrial regulation of cardiac fibroblast activation. *Current Opinion in Physiology*, June 2022.
5. **Garvin AM**, JS Talboom, M De Both, ML Lindsey, MJ Huentelman, TM Hale. Transient ACE (Angiotensin-Converting Enzyme) Inhibition Suppresses Future Fibrogenic Capacity and Heterogeneity of Cardiac Fibroblast Subpopulations. *Hypertension*, March 2021.
6. **Garvin AM**, BS Khokhar, MP Czubyrt, TM Hale. RAS Inhibition in Resident Fibroblast Biology. *Cellular Signaling*, April 2021.
7. **Garvin AM** and TM Hale. Fibroblast Shifts in the Hypertensive Heart: How Single Cell RNA-Sequencing will Accelerate Advancements in Anti-fibrotic Therapies. *Journal of Molecular and Cellular Medicine*, November 2020.
8. **Garvin AM**, MA Jackson, DH Korzick. Inhibition of Programmed Necrosis Limits Infarct Size Through Altered Mitochondrial and Immune Responses in the Aged Female Rat Heart, *American Journal of Physiology Heart and Circulatory Physiology*, June 2018.
9. **Garvin AM**, NC Aurigemma, JL Hackenberger, DH Korzick. Age and Ischemia Differentially Impact Mitochondrial Ultrastructure and Function in a Novel Model of Age-Associated Estrogen Deficiency in the Female Rat Heart, *European Journal of Physiology*, December 2017.
10. **Garvin AM**, JL Miller-Lee, DR Sharda, GM Kanski, JC Hunter, DH Korzick. Evidence of Altered Mitochondrial Protein Expression After Chronic Ethanol Consumption in the Aged Estrogen-Deficient Female Rat Heart, *Alcoholism: Clinical and Experimental Research*, July 2017.
11. Tomicek NJ, JC Hunter, **AM Machikas**, V Lopez, DH Korzick. Acute Adiponectin Delivery is Cardioprotective in the Aged Female Rat Heart, *Geriatrics and Gerontology International*, May 2015.
12. Hunter JC, **AM Machikas**, DH Korzick. Age-Dependent Reductions in Mitochondrial Respiration are Exacerbated by Calcium in the Female Rat Heart, *Gender Medicine*, April 2012.

*Meeting Abstracts:*

1. Davis JA, LE de Castro Brás, **AM Garvin**. Prohibitin 1 deletion from activated cardiac fibroblasts in vivo attenuates cardiac fibrosis. American Physiology Summit, *April 2024*, Long Beach, CA.
2. Mooers CE, WD Pallas, JL Hannan, **AM Garvin**. Characterization of cardiac fibrosis in older lean vs. obese ZSF1 rats. American Physiology Summit, *April 2024*, Long Beach, CA.
3. Davis JA, CE Mooers, **AM Garvin**. Loss of Prohibitin 1 in Activated Cardiac Fibroblasts Attenuates Isoproterenol-Induced Cardiac Fibrosis. ECDOI Research Retreat, August 2023, Greenville, NC.
4. Floyd DB, **AM Garvin**, TM Hale. Sex-Specific Impact of Angiotensin II on Arterial Pressure and LV Mass during Angiotensin Converting Enzyme Inhibition in Spontaneously Hypertensive Rats. American Physiology Summit, April 2023, Long Beach, CA.
5. **Garvin AM**, JS Talboom, M De Both, MJ Huentelman, ML Lindsey, TM Hale. Unique Mitochondrial Gene Profiles in Activated Cardiac Fibroblasts. International Society for Heart Research, September 2022, Winnipeg, Manitoba, Canada.
6. **Garvin AM**, DB Floyd, AW Altaf, MM Siegel, WS Nuñez, P Soni, TM Hale. Prior Angiotensin Converting Enzyme Inhibition Differentially Alters Angiotensin II-Induced Oxidative Stress in Male and Female Hypertensive Rats. Experimental Biology annual meeting, April 2022, Philadelphia, PA.
7. Floyd DB, **AM Garvin**, WS Nunez, CC Carroll, TM Hale. Sex-Selective Effects of Transient ACE Inhibition on Angiotensin II-Stimulated Fibrogenic Responses. Experimental Biology annual meeting, April 2022, Philadelphia, PA.
8. **Garvin AM**, DB Floyd, WS Nunez, TM Hale. Is Prohibitin a Mediator of Cardiac Fibroblast Activation? Arizona Physiological Society, October 2021, Glendale, AZ. *Selected for oral presentation*.
9. Floyd DB, **AM Garvin**, WS Nunez, TM Hale. Transient ACE Inhibition Sex-Selectively Impacts Angiotensin II-Induced Fibrogenic Responses. Arizona Physiological Society, October 2021, Glendale, AZ. *Selected for oral presentation*.
10. Ferreira K, **AM Garvin**, IN Singh, WS Nuñez, RE Frye, TM Hale. Impact of Doxorubicin and Metformin on Cardiac Mitochondrial Electron Transport Chain Proteins. Arizona Physiological Society, October 2021, Glendale, AZ. *Selected for oral presentation*.
11. **Garvin AM**, DB Floyd, AW Altaf, MM Siegel, WS Nunez, P Soni, TM Hale. Transient Angiotensin Converting Enzyme Inhibition Produces Sex-Specific Anti-Fibrotic Effects in Hypertensive Rats. International Society for Heart Research North American Section annual meeting, September 2021, Denver, CO.
12. **Garvin AM**, DB Floyd, AW Altaf, MM Siegel, WS Nunez, TM Hale. Transient Angiotensin Converting Enzyme Inhibition Protects Against Future Fibrogenic Responses Via Sex-specific Mechanisms. AHA Basic Cardiovascular Sciences annual meeting, August 2021. *Virtual poster*.
13. Floyd DB, **AM Garvin**, WS Nuñez, TM Hale. Sex-Selective Impact of Transient ACE Inhibition on Angiotensin II-Induced Collagen Gene Expression. Experimental Biology, April 2021. *Virtual poster and data blitz presentation (ASPET)*.
14. Singh IN, **AM Garvin**, W Nuñez, M Karim, RE Frye, TM Hale. Metformin Protects the Heart from Doxorubicin Toxicity through Modulation of Mitochondria Function: Implication for Pediatric Cancer Chemotherapy. Flynn Foundation/ABRC research conference, February 2021, Phoenix, AZ.
15. Floyd DB, W Nuñez, **AM Garvin**, TM Hale. Angiotensin II-Induced Collagen Deposition in the Hypertensive Heart is Attenuated by Transient ACE Inhibition. Arizona Physiological Society, November 2020. *Virtual poster*.

16. Nuñez W, DB Floyd, **AM Garvin**, TM Hale. Transient ACE Inhibition Attenuates Ang II-Induced Inflammatory Markers in the Hypertensive Rat Heart. Arizona Physiological Society, November 2020. *Selected virtual oral presentation.*
17. **Garvin AM**, JS Talboom, M De Both, MJ Huentelman, TM Hale. Single Cell RNA Sequencing Reveals a Shift in Cardiac Fibroblast Sub-Populations in Hypertensive Rats After Transient ACE Inhibition in vivo. International Society for Heart Research, October 2020. *Selected virtual oral presentation.*
18. **Garvin AM**, JS Talboom, M De Both, MJ Huentelman, TM Hale. Single Cell RNA Sequencing Reveals a Shift in Cardiac Fibroblast Sub-Populations in Hypertensive Rats After Transient ACE Inhibition in vivo. Experimental Biology (APS), April 2020. *\*Canceled due to COVID19*
19. Altaf AW, P Soni, M Kim, **AM Garvin**, TM Hale. Unlocking Signaling Mechanisms That Underlie Persistent Anti-Fibrotic Effects of Transient ACE Inhibition. Experimental Biology (APS), April 2020. *\*Canceled due to COVID19*
20. Singh IN, **AM Garvin**, W Nunez, M Karim, RE Frye, TM Hale. Protecting cardiac and skeletal muscle against pediatric cancer chemotherapy: Understanding and unlocking new pathways. Flynn Foundation/ABRC research conference, February 2020, Phoenix, AZ.
21. **Garvin AM**, JS Talboom, M De Both, MJ Huentelman, TM Hale. Transient Angiotensin Converting Enzyme Inhibition in Hypertensive Rats Homogenizes the Cardiac Fibroblast Population Supporting a Less Fibrogenic Transcriptome. Arizona Physiological Society, November 2019, Tempe, AZ. *Selected oral presentation.*
22. Altaf AW, P Soni, M Kim, **AM Garvin**, TM Hale. Unlocking Signaling Mechanisms That Underlie Persistent Anti-Fibrotic Effects of Transient ACE Inhibition. Arizona Physiological Society, November 2019, Tempe, AZ. *Selected oral presentation.*
23. **Garvin AM**, JS Talboom, M De Both, MJ Huentelman, TM Hale. Heterogeneity of Cardiac Fibroblast Populations is Reduced by Transient Angiotensin Converting Enzyme Inhibition in Hypertensive Rats. Arizona Postdoctoral Research Conference, September 2019, Phoenix, AZ.
24. **Garvin AM**, JS Talboom, M De Both, MJ Huentelman, TM Hale. Heterogeneity of Cardiac Fibroblast Populations is Reduced by Transient Angiotensin Converting Enzyme Inhibition in Hypertensive Rats. ASMB Fibroblast Workshop, June 2019, Charlottesville, VA.
25. **Garvin AM**, O Perez, B McCormick, TM Hale. Altered Antioxidant and Inflammatory Signaling by Fibroblasts in the Hypertensive Heart. Experimental Biology (ASPET), April 2019, Orlando, FL.
26. **Garvin AM**, O Perez, B McCormick, TM Hale. Impact of Chronic Angiotensin Treatment on the Responses of Isolated Cardiac Fibroblasts to Acute Pro-Fibrotic Stimuli. Arizona Physiological Society, October 2018, Tempe, AZ.
27. **Garvin AM**, O Perez, B McCormick, TM Hale. Impact of Chronic Angiotensin Treatment on the Responses of Isolated Cardiac Fibroblasts to Acute Pro-Fibrotic Stimuli. Experimental Biology (ASPET), April 2018, San Diego, CA.
28. Perez O, **AM Garvin**, TM Hale. Transient ACE-Inhibitor Treatment Produces Persistent Change in Cardiac Fibroblast Physiology. Experimental Biology (ASPET), April 2018, San Diego, CA.
29. **Garvin AM**, NC Aurigemma, DH Korzick. Influence of age and ischemia on cardiac subsarcolemmal and interfibrillar mitochondria function sensitizes the aged female rat heart to programmed necrosis. Arizona Physiological Society, October 2017, Flagstaff, AZ. *Selected oral presentation.*
30. **Garvin AM**, NC Aurigemma, DH Korzick. Influence of age and ischemia on cardiac subsarcolemmal and interfibrillar mitochondria function and morphology in a novel model of

estrogen deficiency. Translational Research in Mitochondria, Aging, and Disease Symposium, November 2015, State College, PA. *Selected for oral presentation.*

31. **Garvin AM**, NC Aurigemma, DH Korzick. Influence of age and ischemia on cardiac subsarcolemmal and interfibrillar mitochondria in a novel model of estrogen deficiency. Basic Cardiovascular Sciences Scientific Sessions, July 2015, New Orleans, LA.
32. Aurigemma NC, **AM Garvin**, DH Korzick. Alterations in Mitochondrial Morphology with Age-Associated Estrogen Deficiency and Ischemia/Reperfusion Injury. Experimental Biology (APS), April 2015, Boston, MA.
33. **Garvin AM**, NC Aurigemma, DH Korzick. A Novel Model of Menopause Reveals Gender Differences in Mitochondria of the Aged Rat Heart. Annual Graduate Exhibition, The Pennsylvania State University, March 2015, University Park, PA.
34. Kenney LE, **AM Garvin**, NC Aurigemma, DH Korzick. The Role of SIRT3 and CypD on the Aged Female Heart. Annual Undergraduate Exhibition, The Pennsylvania State University, March 2015, University Park, PA.
35. **Garvin AM**, NC Aurigemma, DH Korzick. Influence of age and ischemia on cardiac subsarcolemmal (SSM) and interfibrillar (IFM) mitochondria in a novel model of estrogen deficiency. Research in Mitochondria, Aging, and Disease Symposium, October 2014, Pittsburgh, PA.
36. **Garvin AM**, NC Aurigemma, N Lehtihet, JL Hackenberger, DH Korzick. Influence of age and ischemia on cardiac subsarcolemmal (SSM) and interfibrillar (IFM) mitochondria in a novel model of estrogen deficiency. Experimental Biology (APS), April 2014, San Diego, CA.
37. **Machikas AM**, J.C. Hunter, V. Lopez and D.H. Korzick. Increased Mitochondrial Permeability Transition Pore Opening Dominates I/R Injury in the Aged Female Rat Heart. Basic Cardiovascular Sciences Scientific Sessions, July 2012, New Orleans, LA.
38. **Machikas AM**, J.C. Hunter, V. Lopez and D.H. Korzick. Preventing Heart Attacks in Older Females: Novel Insights from the Mitochondrial Inner Membrane. Annual Graduate Exhibition, The Pennsylvania State University, March 2012, University Park, PA.
39. Hunter JC, **AM Machikas**, DH Korzick. Age-Dependent Reductions in Mitochondrial Respiration are Exacerbated by Calcium in the Female Rat Heart. Experimental Biology (APS), April 2011, Washington, DC.
40. **Machikas AM**, Hunter JC, DH Korzick. Defective Mitochondrial Respiration: Cause or Consequence of Heart Disease in Aged Females? Annual Graduate Exhibition, The Pennsylvania State University, March 2011, University Park, PA.

## **Seminars**

### *Invited seminars:*

1. "Matters of the Heart: How I Navigated Work and Life through Pre- and Post-doctoral Training" East Carolina University, Department of Pharmacology and Toxicology, February 28, 2024, Greenville, NC.
2. "Targeting Cardiac Fibroblasts for the Treatment of Heart Failure" East Carolina University, Department of Biology Departmental Seminar, November 30, 2023, Greenville, NC.
3. "Cardiac Fibroblast Diversity in the Pressure Overloaded Heart" American Physiology Summit. April 2023, Long Beach, CA.
4. "Cardiac Fibroblasts as Therapeutic Targets for Heart Failure: A Focus on Mitochondrial Mechanisms" The Pennsylvania State University, Department of Kinesiology Noll Seminar, March 2023, State College, PA.

5. "Putting better practices into practice for primary cardiac fibroblast culture" American Society for Matrix Biology Fibroblast Workshop. University of Virginia, Charlottesville, VA, October 2022.
6. "Work-Life Balance: The Early Years" The Pennsylvania State University, Department of Kinesiology, April 2020. *Virtual presentation*.
7. "Transient ACE Inhibition in Hypertensive Rats Promotes Cardiac Fibroblast Subpopulations with Suppressed Fibrotic Pathways" The Pennsylvania State University, Department of Kinesiology Noll Seminar, April 2020. *Canceled due to COVID19*
8. "ACE Inhibition Reduces Heterogeneity of Cardiac Fibroblast Populations in Hypertensive Rats" Basic Medical Sciences Summer Seminar, June 2019, Phoenix, AZ
9. "Altered Cellular Responsiveness to Cardiac Injury in At-Risk Populations" Northern Arizona University, Department of Biological Sciences Seminar, April 2019, Flagstaff, AZ
10. "Impact of Chronic Angiotensin Treatment on the Responses of Isolated Cardiac Fibroblasts to Acute Pro-Fibrotic Stimuli" Basic Medical Sciences Summer Seminar, June 2018, Phoenix, AZ
11. "Influence of Age and Ischemia on Cardiac Mitochondria in a Novel Model of Estrogen Deficiency" The Pennsylvania State University, Noll Seminar, February 2015, State College, PA
12. "Influence of Age and Ischemia on Cardiac Mitochondria in a Novel Model of Estrogen Deficiency" The Pennsylvania State University, Annual Physiology Retreat, November 2014, State College, PA.

*Selected Presentations:*

1. "Is Prohibitin a Mediator of Cardiac Fibroblast Activation?" Arizona Physiological Society, October 2021, Tempe, AZ
2. "Single Cell RNA Sequencing Reveals a Shift in Cardiac Fibroblast Subpopulations in Hypertensive Rats After Transient ACE Inhibition *in vivo*" International Society for Heart Research Cardiovascular North American Section 2020 ECI session, October 2020. *Virtual presentation*
3. "Transient Angiotensin Converting Enzyme Inhibition in Hypertensive Rats Homogenizes the Cardiac Fibroblast Population Supporting a Less Fibrogenic Transcriptome." Arizona Physiological Society, November 2019, Tempe, AZ
4. "Influence of Age and Ischemia on cardiac subsarcolemmal and interfibrillar mitochondria function sensitizes the aged female rat heart to programmed necrosis" Arizona Physiological Society Annual Meeting, October 2017, Flagstaff, AZ
5. "Influence of Age and Ischemia on Cardiac Subsarcolemmal and Interfibrillar Mitochondria Function and Morphology in a Novel Model of Estrogen Deficiency" The Pennsylvania State University, 5<sup>th</sup> Regional Translational Research in Mitochondria, Aging, and Disease Symposium, November 2015, State College, PA.

*Other:*

1. "Mouse models for induction of cardiac fibrosis and heart failure" East Caroline University, Department of Comparative Medicine, January 24, 2024
2. "Garvin Lab: Investigating mechanisms of cardiac fibroblast activation through the lens of mitochondria" ECDOI Research Retreat, August 2023.
3. "Single Cell RNA Sequencing Analysis of Resident Cardiac Fibroblast Subpopulations in the Hypertensive Left Ventricle" International Society for Heart Research Cardiovascular Webinar Series, May 2020.

## **Professional Service**

### *Departmental/Campus Service:*

2020-2022	Phoenix Biomedical Campus Representative, University of Arizona Postdoctoral Association
2019, 2020	Connect2STEM, outreach event on Phoenix Biomedical Campus
2016	Science-U Pre-Med Summer Camp – organized a Physiology information booth for middle school students participating in the camp
2015	HUCK Graduate Student Advisory Committee, Penn State University, member and secretary for inaugural committee
2011	Science-U Career Day for Girls – taught middle school girls about heart anatomy and function to encourage interest in the STEM fields
2010-2016	Graduate Student Recruitment, Penn State University

### *Professional Societies/Service:*

2012-	Member, American Heart Association
2011-	Member, American Physiological Society, Cardiovascular Section
2017-2019	Member, American Society for Pharmacology and Experimental Therapeutics
2017-2022	Member, Arizona Physiological Society
2017-2019	<i>Postdoctoral Councilor on executive committee</i>
2017-2022	Member, Graduate Women in Science
2018	<i>Charter member for establishment of GWIS Arizona chapter</i>
2019-2022	<i>Treasurer, Arizona Chapter of Graduate Women in Science</i>
2019-2020	Member, American Society for Matrix Biology
2020-2022	Member, International Society of Heart Research, North American Section

## **Teaching Experience**

\*Teaching assistant and lab instructor duties included short topical lectures, laboratory activities, and grading of students' work (lab reports, quizzes, and exams) for ~45 students per semester.

Spring 2024	Graduate Physiology II (PHLY 7702)
AY 21/22	Cardiometabolic Journal Club (CTS 595), instructor
Fall 2016	Physiology Laboratory (BIOL 142), teaching assistant/lab instructor
Spring 2016	Exercise Prescription (KINES 457), teaching assistant
Spring 2012	Laboratory in Mammalian Physiology (BIOL 473), teaching assistant/lab instructor
Fall 2011	Physiology Laboratory (BIOL 142), teaching assistant/lab instructor

## **Laboratory Supervision**

### *Doctoral Students*

- |                        |           |
|------------------------|-----------|
| 1. Lakshmi Madhavpeddi | 2017-2022 |
| 2. Bin Guo, BS         | 2016-2017 |



*Medical Students*

- |                   |           |
|-------------------|-----------|
| 1. Alexis Bailey  | 2020-2022 |
| 2. Jesus Sandoval | 2018-2021 |
| 3. Isaam Awwad    | Fall 2017 |

*Masters Students*

- |                         |           |
|-------------------------|-----------|
| 1. Morgan Jackson, BS   | 2014-2016 |
| 2. Cory Arnold, BS      | Fall 2015 |
| 3. Nicole Aurigemma, MS | 2013-2015 |

*Undergraduate Students*

- |                       |                    |
|-----------------------|--------------------|
| 1. Caitlyn Mooers     | 2023-              |
| 2. Emma Williams      | 2021-2022          |
| 3. Kristiann Ferreira | 2020-2022          |
| 4. Amal Altaf         | 2019-2021          |
| 5. Matthew Siegel     | 2018-2021          |
| 6. Bilal Khokhar      | 2017-2019          |
| 7. Jessica Henry      | 2015-2017          |
| 8. Jenna Hackenberger | Summer 2013 & 2015 |
| 9. Lauren Kenney      | Summer 2014        |
| 10. Nadia Lehtihet    | Summer 2013        |
| 11. Avik Sarker       | Summer 2013        |
| 12. Carlos Diaz       | 2012-2013          |

*High School Students*

- |                    |                    |
|--------------------|--------------------|
| 1. Kallyna Mendoza | 2023-2024          |
| 2. Poulami Soni    | Summer 2019 & 2021 |
| 3. Minseo Kim      | Summer 2019        |
| 4. Alisha Labuda   | Summer 2018        |
| 5. Tanvi Nayak     | 2017-2018          |

*Technicians*

- |                |           |
|----------------|-----------|
| 1. Julie Davis | 2023-     |
| 2. Dana Woods  | 2019-2022 |
| 3. Wendy Nunez | 2019-2022 |