

# Curriculum Vitae

Alan J. Mouton, PhD

Postdoctoral Researcher  
University of Mississippi Medical Center  
Department of Physiology  
2500 North State Street  
Jackson, MS, 39211  
225-454-4448  
[amouton@umc.edu](mailto:amouton@umc.edu)

## Education

PhD Candidate, Louisiana State University Health Sciences Center, New Orleans  
School of Medicine, Department of Physiology, 2012-2017  
Thesis Title: Mechanisms of Chronic Alcohol Abuse on Cardiac Remodeling  
Mentor: Dr. Jason D. Gardner

B.S.—Biochemistry; Minor in Chemistry; 2007-2011  
Louisiana State University, College of Science, Department of Biological Sciences

## Research Experience/Employment

Research Associate, Dr. Patricia E. Molina, February-July, 2012  
Department of Physiology  
Louisiana State University Health Sciences Center, New Orleans  
Mechanisms of Alcoholic Myopathy in Rhesus Macaques

Student Volunteer Research Assistant, Dr. Yong-Hwan Lee, August, 2011-February, 2012  
Louisiana State University, College of Science, Department of Biological Sciences, Division of  
Biochemistry and Molecular Biology  
3-dimensional structure of glycolytic enzymes

## Professional Society Membership

2013—present	American Physiological Society
2013—2016	Society for Experimental Biology and Medicine
2014—2017	Research Society on Alcoholism
2014—present	American Heart Association

## Professional Skills Training

2016	APS Professional Skills Training: Writing and Reviewing for Scientific Journals. Lake Buena Vista, FL.
------	--

## Outreach

2014	American Physiological Society PhUN Week. St. Catherine of Siena. Metairie, LA. Respiratory Physiology with 4 <sup>th</sup> grade class.
2014	American Physiological Society PhUN Week. Fontainebleau High School. Mandeville, LA. Exercise Physiology.

- 2014 Alcohol Addiction Recovery Rally. Xavier University. New Orleans, LA.  
 2015 American Physiological Society PhUN Week. John Quincy Adams Middle School. Metairie, LA. Exercise Physiology.  
 2016 Comprehensive Alcohol Research Heart Wellness Fair. “Alcohol and the Heart.”

## Teaching Activities

### LSU Health Sciences Center

- 2015 Dental Hygiene 3202: General and Oral Physiology. Cardiovascular Physiology Block—3 hours.  
 2015 HLSC 2410, School of Nursing. Biocommunication block, 2 hours. “Neurotransmitters and Receptors” and “Sensory Physiology.”  
 2016 HLSC 2410, School of Nursing. Cardiovascular block, 2 hours. “Cardiac and Smooth Muscle” and “Autonomic Nervous System.”  
 2015-2016 HLSC 2410, Human Physiology, School of Nursing. Appointed class tutor.  
 2016 HLSC 3410, Human Pathophysiology, School of Nursing. “Pathophysiology of Stress.”

### University of Mississippi Medical Center

- 2017 PHYSIO 717, Department of Physiology and Biophysics. Circulatory Physiology for Graduate Students. “Cardiac Pathophysiology.”

## Mentoring

- 2013 Morgan Walker. Summer Medical Student Research Program at LSUHSC.  
 Ranjita Shrestha, Louisiana Biomedical Research Network Scholarship.  
 Aimee Lacour, Louisiana Biomedical Research Network Scholarship.  
 Meagan Doherty, Premedical Student Summer Research Program.  
 2014 Rachel Oppenheim, Louisiana State University Baton Rouge, Premedical Student Summer Research Program. McKenzie Kay, Louisiana Biomedical Research Network Scholarship.  
 Aaron McCalister. APS Frontiers in Science Program.  
 2015 Courtney Evans, Premedical Student Summer Research Program.  
 Kay McKenzie, Louisiana Biomedical Research Network Scholarship.  
 2016 Hope Shevchuk, Premedical Student Summer Research Program.

## Honors and Awards

- 2014 SEBM Young Investigator Award. Experimental Biology, San Diego, CA.  
 2014 LSUHSC Department of Physiology Paul S. Roheim Award for Graduate Student Excellence in Research.  
 2015 Caroline Tum Suden/Frances Hellebrandt Professional Opportunity Award. Experimental Biology, Boston, MA.

## Oral Presentations

1. **Mouton AJ**, El Hajj EC, El Hajj MC, Molina PE, Gilpin NW, Gardner JD. "Role of NADPH oxidases in ethanol-induced cardiac fibrosis." *Gulf Coast Physiological Society*; Mobile, AL; June 2013.
2. "NIH F Awards." *LSU Health Sciences Center Department of Physiology: Perspectives on Alcohol Research*. October 2014.
3. "Ethanol-induced cardiac fibrosis is mediated by NADPH oxidase." *LSU Health and Sciences Graduate Student Research Day*. New Orleans, LA; 2014.
4. "Alcohol Prevents Compensatory Hypertrophy during Volume Overload-Induced Heart Failure." *LSU Health and Sciences Graduate Student Research Day*. New Orleans, LA; 2015.
5. "Alcohol Prevents Compensatory Hypertrophy in a Rat Model of Volume Overload." *Alcohol and Drug Abuse Center of Excellence Retreat*. New Orleans, LA; 2015.
6. "Alcohol Abuse and Heart Failure." *LSU Health Sciences Center Department of Physiology Seminar Series*. New Orleans, LA; 2016.
7. "Alcohol Abuse and Heart Failure." *University of Mississippi Medical Center Department of Physiology and Biophysics*. Invited Seminar Speaker. Jackson, MS; January 2017.
8. "Alcohol Abuse and Heart Failure: Impairments in Cardiac Remodeling." *University of Mississippi Medical Center Department of Physiology and Biophysics*. Physiology Seminar Series. July 2017.

## Abstracts

1. Arceneaux K, **Mouton AJ**, Barnes MJ, Primeaux SD. Estradiol administration regulates hypothalamic expression of QRFP and QRFP-induced food intake. *Society for the Study of Ingestive Behavior*, New Orleans, LA; July 2013.
2. **Mouton AJ**, El Hajj EC, El Hajj MC, Molina PE, Gilpin NW, Gardner JD. Role of NADPH oxidases in ethanol-induced cardiac fibrosis. *Gulf Coast Physiological Society*; Mobile, AL; June 2013.
3. Bradley JM, El Hajj MC, **Mouton AJ**, El Hajj EC, and Gardner JD. Differential response of cardiac NOX-2 and -4 to mild and severe pressure overload. *Experimental Biology*; Boston, MA; April 2013.
4. **Mouton AJ**, Walker MK, El Hajj MC, Molina PE, Gilpin NW, Gardner JD. Ethanol-induced cardiac fibrosis is mediated by NADPH oxidase. *Experimental Biology*; San Diego, CA; April 2014.
5. **Mouton AJ**, Gilpin NW, Walker MK, El Hajj MC, Molina PE, Gardner JD. Alcohol induces cardiac fibrosis via TGF- $\beta$ 1 and NADPH oxidase. *Research Society on Alcoholism*; Bellevue, WA; June 2014.
6. **Mouton AJ**, Maxi JK, El Hajj MC, Souza-Smith F, Gilpin NW, Bagby GJ, Molina PE, Gardner JD. Alcohol vapor inhalation produces multi-organ dysfunction. *Research Society on Alcoholism*; Bellevue, WA; 2014.
7. **Mouton AJ**, El Hajj EC, El Hajj MC, Gilpin NW, Molina PE, Gardner JD. Alcohol Exposure Worsens Progression of Heart Failure in a Rat Model of Volume Overload. *Experimental Biology*; Boston, MA; 2015.
8. **Mouton AJ**, Gilpin NW, Molina PE, Gardner JD. Chronic Intermittent Alcohol Exposure Exacerbates Volume Overload-Induced Heart Failure. *Research Society on Alcoholism*; San Antonio, TX; 2015.
9. Primeaux SD, Souza-Smith F, Poret J, **Mouton AJ**, Marcell SJ, Battle CA, Braymer HD, Harrison-Bernard LM. Adipose Inflammation and Cardiovascular Disease Risk Factors in Obesity-prone Osborne-Mendel and Obesity-Resistant S5B/PI Rats. *Experimental Biology*; San Diego, CA; 2016.

10. **Mouton AJ**, Ninh VK, El Hajj EC, El Hajj MC, Gilpin NW, Gardner JD. Chronic Alcohol Exposure Attenuates Compensatory Hypertrophy and Remodeling and Accelerates Cardiac Dysfunction in a Rat Model of Volume Overload. *Experimental Biology*; San Diego, CA; 2016.
11. Ninh VK, El Hajj EC, El Hajj MC, **Mouton AJ**, Gardner JD. Lysyl oxidase inhibition alleviates Fibrosis and Dysfunction in Rodents with Established Cardiac Disease. *Experimental Biology*; San Diego, CA; 2016.
12. **Mouton AJ**, Ninh VK, El Hajj EC, El Hajj MC, Gilpin NW, Gardner JD. Alcohol Blocks Compensatory Collagen Remodeling During Both Acute and Chronic Volume Overload. *Research Society on Alcoholism*; New Orleans, LA, 2016.
13. Ninh VK, **Mouton AJ**, Ronis MJ, Gardner JD. Prenatal Alcohol Exposure creates NOX4-derived oxidative stress and Notch1 dysregulation in cardiac fibroblasts. Gordon Research Conference: Alcohol-Induced End Organ Diseases, 2017; Ventura, CA.
14. **Mouton AJ**, Ma Y, DeLeon-Pennell KY, Garrett MR, Freeman TC, and Lindsey ML. **Post-Myocardial Infarction Cardiac Fibroblast Transcriptomic Signatures Reveal Angiogenesis Regulation.** Keystone Conference—Heart Failure: Crossing the Translational Divide; Keystone, CO, 2018.

### Peer-Reviewed Publications

1. El Hajj EC, El Hajj MC, Voloshenyuk TG, **Mouton AJ**, Khoutorova E, Molina PE, Gilpin NW, and Gardner JD. Alcohol Modulation of MMP and TIMP Expression in the Heart Favors Collagen Accumulation. *Alcoholism: Clinical and Experimental Research*. 2014 Feb;38(2):448-56. doi: 10.1111/acer.12239.
2. Gardner JD, **Mouton AJ**. Alcohol Effects on Cardiac Function. *Comprehensive Physiology*. 2015 Apr;5(2):791-802. doi: 10.1002/cphy.c140046.
3. Schreiber AL, Arceneaux KP, Malbrue RA, **Mouton AJ**, Chen CS, Bench EM, Braymer HD, Primeaux SD. The effects of high fat diet and estradiol on hypothalamic prepro-QRFP mRNA expression in female rats. *Neuropeptides*. 2016 Jan 26. pii: S0143-4179(16)00005-6.
4. **Mouton AJ**, Ninh VK, El Hajj EC, El Hajj MC, Gilpin NW, Gardner JD. Exposure to chronic alcohol accelerates development of wall stress and eccentric remodeling in rats with volume overload. *Journal of Molecular and Cellular Cardiology*. Apr 20;97:15-23. doi: 10.1016/j.yjmcc.2016.04.010. Epub 2016 Apr 20.
5. **Mouton AJ**, Maxi JK, Souza-Smith F, Bagby GJ, Gilpin NW, Molina PE, Gardner JD. Alcohol Vapor Inhalation as a Model of Alcohol-Induced Organ Disease. *Alcohol: Clinical and Experimental Research*. 2016 Aug;40(8):1671-8. doi: 10.1111/acer.13133. Epub 2016 Jul 4.
6. Ma Y, **Mouton AJ**, Lindsey ML. Cardiac macrophage biology in the steady-state heart, the aging heart, and following myocardial infarction. *Transl Res*. 2018 Jan;191:15-28. doi: 10.1016/j.trsl.2017.10.001. Epub 2017 Oct 13. Review.
7. Nielsen SH, **Mouton AJ**, DeLeon-Pennell KY, Genovese F, Karsdal M, Lindsey ML. Understanding cardiac extracellular matrix remodeling to develop biomarkers of myocardial infarction outcomes. *Matrix Biol*. 2017 Dec 14. pii: S0945-053X(17)30268-8. doi: 10.1016/j.matbio.2017.12.001. [Epub ahead of print] Review.

### Research Support

NIH/NHLBI T32HL105324. September 1, 2017-present. "Hypertension and Cardiorenal Diseases Research Training Program." PI: Joey P. Granger, PhD.

American Heart Association Predoctoral Fellowship; Greater Southeast Affiliate. July 1, 2015-June 30, 2017. "Effects of Chronic Alcohol Abuse on Progression of Cardiac Remodeling."

NIH/NIAAA 5-T32-AA007577-14. July 1, 2013-June 30, 2015.  
“Biomedical Alcohol Research Training Program.” PI: Gregory Bagby, PhD; Patricia E. Molina,  
MD/PhD.