CURRICULUM VITAE

Jason D. Gardner, Ph.D., F.A.H.A., F.C.V.S.

Current Title: Associate Professor of Physiology
Business Address: Louisiana State University Health Sciences Center, 1901 Perdido Street, MEB 7205, New Orleans, LA 70112
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Business email Address: jgardn@lsuhsc.edu

Home Address: 1500 Elderberry Loop, Mandeville, LA 70448
Home Telephone: (985) 807-2006

Citizenship: U.S. Citizen

Education:

Undergraduate: B.S., Chemical Engineering, Louisiana State University, 1991

Graduate: Ph.D., Biomedical Engineering, Louisiana Tech University, 1997

Post-Doctoral Fellowship: Department of Physiology, University of South Alabama, College of Medicine, Mobile, 1997 - 2000

Academic, Professional, and Research Appointments:

Research Assistant Professor Summer 2000 - 2005
Department of Anatomy, Physiology and Pharmacology
Auburn University College of Veterinary Medicine, Auburn, AL

Assistant Professor Summer 2005 - 2008
Department of Cell and Developmental Biology and Anatomy
Department of Biomedical Engineering Core Faculty
University of South Carolina, School of Medicine, Columbia, SC

Assistant Professor Summer 2008 - 2014
Department of Physiology
Louisiana State University Health Sciences Center, School of Medicine,
New Orleans, LA

Associate Professor with tenure Summer 2014 - present
Department of Physiology
Louisiana State University Health Sciences Center, School of Medicine,
New Orleans, LA

Kai and Earl Rozas Associate Professor of Physiology 2017 - present
Department of Physiology
Louisiana State University Health Sciences Center, School of Medicine,
New Orleans, LA

Membership in Professional Organizations:

- Gulf Coast Physiological Society; President 2013-2015; Councilor 2012-2013; Treasurer 2013
- Society of Experimental Biology and Medicine (SEBM); Councilor 2012-2016; Chair of Nominating Committee 2016-present
- American Physiological Society (APS); Member & Fellow of Cardiovascular Section; Treasurer of the Cardiovascular Section
- American Heart Association (AHA); Member & Fellow Council on Basic Cardiovascular Sciences (BCVS);
- Research Society on Alcoholism (RSA); Member
- Biomedical Engineering Society (BMES); Member
- International Society for Heart Research (ISHR); Member

Awards and Honors:

- 1990 Dow Outstanding Junior Award (Chemical Engineering)
- Allied-Signal Chemical Engineering Scholarship
- Tau Beta Pi Engineering Honor Society
- 1st place in graduate student competition at the 16th Southern Biomedical Engineering Conference.
- 2000 Aventis Pharmaceuticals New Investigator Travel Award
- 2012 IDEA NISBRE Conference Young Investigator Award
- 2014 Elected as Fellow of the American Physiological Society Cardiovascular Section
- 2014 Elected as Fellow of the American Heart Association
- 2016 LSU Medical Alumni Association Award of Excellence

TEACHING EXPERIENCE AND RESPONSIBILITIES:

Course Directorships:

Medical Physiology (PHYSIO 100 / 205)
Spring 2015 - Present
LSUHSC Medical School
Role: Director (2019) / Co-Director
Duties: Cardiovascular Lectures and Labs. Course management.

Cardiovascular Physiology (PHYSIO 212)
Fall 2015
LSUHSC Graduate School
Role: Co-Director
Duties: Develop and present Cardiovascular Lectures on the Hyperpermeability, Development, Hypertrophy, ECM, Heart Failure, Sex Differences, Effects of Alcohol, and Cardiac Contractility. Administer and assess essay examination.

Human Physiology (BSN HS2410/OCCT 6523)

Spring/Fall 2009-Spring 2015

LSUHSC School of Nursing and School of Allied Health

Role: Co-Director

Duties: Develop and present the Cardiovascular Physiology Lecture Block and associated ECG Laboratory; proctor examinations with Director Dr. Raymond Shepherd.

Seminar in Physiology (PHYSIO 299)

Spring/Fall 2019; Spring/Fall 2013 – Spring 2014

LSUHSC Department of Physiology

Role: Director

Duties: Schedule weekly invited seminar speakers; instruct students on proper introduction of speakers and moderation of questions; evaluate student seminar reports.

Special Topics in Physiology; Renal and Vascular Physiology (PHYSIO 289)

Fall 2013

LSUHSC Department of Physiology

Role: Co-Director

Duties: Course development and organization with co-Director, Dr. Lisa Harrison-Bernard. Develop lecture and exam materials; administer exams; evaluate student presentations.

Anatomy and Physiology for Biomedical Engineers (BMEN 723)

Spring 2006/2007

University of South Carolina Biomedical Engineering Department

Role: Director

Duties: Course director and developer; lecture blocks of cell biology and cardiovascular physiology; administer examinations; manage course grades and lecture schedule.

Formal Course Responsibilities

School of Medicine

Medical Physiology (PHYSIO 100)

Spring 2015 - 2019

Director (2019) / Co-Director

~180 Medical Students and Graduate Students; Cardiovascular Physiology Lecture Block / ECG and CV Labs; 16 hrs lecture/ 46 hrs lab

Science and Practice of Medicine: Medical Ethics (CSI/SPM 200)

Fall 2013-present

Carollton House, Houses Program

~15 Medical Students; ~ 20 contact hrs/semester

Science and Practice of Medicine: Clinical Forums (CSI/SPM 100)

Spring 2013-present

Carollton House, Houses Program

~15 Medical Students; ~12 contact hrs/semester

School of Nursing and School of Allied Health

Medical Physiology (NURS 7405)
Spring 2015 - 2019

Director (2019) / Co-Director

~45 CRNA Students, Concurrent with PHYSIO 100. Cardiovascular Physiology Lecture Block / ECG and CV Labs

Human Physiology (BSN HS2410/OCCT 6523)
Spring/Fall 2009-Spring 2015

Co-Director BSN HS2410

~185-200 Nursing and Occupational Therapy Students; Cardiovascular Physiology Lecture Block and ECG Labs; 8 hrs lecture/ 6 hrs lab

Pathophysiology (BSN HS3410)
Fall 2008 - 2010
~100 nursing students; Heart Failure lecture; 2 hrs lecture

School of Dentistry

Dental Physiology (DENT 1115)
Spring 2009 – 2017

~75-85 students; Cardiovascular Physiology Lecture Block; 8 hrs lecture

School of Graduate Studies

Special Topics in Physiology; Renal and Vascular Physiology (PHYSIO 289)
Fall 2013
Co-Director; 7 Graduate Students; 2 hrs lecture

Cardiovascular Physiology (PHYSIO 212)
Fall 2008 / 2011 / 2015

~5-7 Graduate Students; 6-9 hrs lecture

Other (prior to joining LSUHSC)

University of South Carolina, Columbia, SC

2006 - 2008 Course director and developer, Anatomy and Physiology for Biomedical Engineers (BMEN 723); 12 graduate students; 14 hrs (Biomedical Engineering Program)

Fall 2006 Medical Microanatomy Laboratory; 85 medical students; 3 hrs twice weekly (School of Medicine)

2005 - 2008 Research in Cardiovascular Disease (SCCC 302D); 12 undergraduate students; 2 hrs lecture (Graduate School)

Auburn University, Auburn, AL

2003 - 2004 Experimental Techniques in Molecular and Cell Biology (CMBL / VBMS 7530); Zymography & Protein Determination Lectures; 12-15 graduate students; 2 hrs lecture (Department of Pathobiology, College of Veterinary Medicine)

University of South Alabama, Mobile, AL

1998 - 2000 ECG and Blood Pressure Laboratories; 70 medical students, 3 hrs (Department of Physiology, College of Medicine)

1997 - 1999 Physical Chemistry Laboratory I & II Instructor; ~30 undergraduate students each semester; 3 hrs each; 2 sections (Chemistry Department)

Louisiana Tech University , Ruston, LA

Fall 1996 Biotransport Phenomena; graduate and senior level physiological modeling course; 20 students; 50% of lectures at 3 hrs/wk (Biomedical Engineering Department)

Departmental / Interdisciplinary Teaching Conferences:

2007 Title: "Contribution of Ovarian Hormones and Estrogen Receptors to Female Cardioprotection."
Seminar
Department of Physiology

2008 Title: "Inhalation of Particulates and Cardiac Injury"
Work in Progress Session to discuss Board of Regents grant application.
Department of Physiology

2008 Title: "Lysyl Oxidase and Volume Overload Stress"
Work in Progress Session to discuss American Heart Association Beginning Grant-in-Aid application.
Department of Physiology

2009 Title: "Estrogenic Cardioprotection in a Rat Model of Chronic Volume Overload."
Seminar
Department of Physiology

2009 Title: "Lysyl Oxidase and Volume Overload Stress"
Work in Progress Session to discuss American Heart Association Grant-in-Aid application.
Department of Physiology

2010 Title: "Lysyl oxidase-dependent Mechanisms of Heart Failure"
Work in Progress Session to discuss American Heart Association Grant-in-Aid resubmission strategy.
Department of Physiology

2010 Title: "Lysyl oxidase-dependent Mechanisms of Heart Failure"
Work in Progress Session to discuss American Heart Association Application Final Resubmission.
Department of Physiology

2013 Title: "Alcohol Exacerbation of Volume Overload Dysfunction and Fibrosis"
Work in Progress Session to discuss NIH R21 Application.
Department of Physiology

2013 Title: "Alcohol and Cardiac Fibrosis"
Seminar for Perspectives in Alcohol Research Group
Department of Physiology

2014 Title: "Lysyl oxidase, Collagen Cross-linking, and Heart Failure"
Seminar
Department of Physiology

2015 Title: "Cardioprotective Effects of Lysyl Oxidase Inhibition"
Invited Talk
Cardiovascular Center Retreat

2015 Title: "Cardioprotective Effects of Lysyl Oxidase Inhibition"
Seminar
Department of Physiology

2016 Title: "Lysyl Oxidase in the Volume Overloaded Heart: Friend or Foe?"
Seminar
Department of Pharmacology

Undergraduate, Medical, or Graduate Students Trained:

DOCTORAL STUDENTS

Yan Du, Ph.D., Doctoral Committee Member, Department of Cell Biology and Anatomy, University of South Carolina School of Medicine: Graduated 2010, Asst Professor at Nicholls State.

Vicky Rands, Ph.D., Doctoral Committee Member, Department of Physiology, Tulane Medical School. Graduated in 2011 from Tulane Doctoral Program.

Sarah Mahne, Ph.D., Doctoral Committee Member, Department of Pharmacology, LSUHSC: Graduated 2012v.

Kristine Kurtz, Ph.D., Doctoral Committee Member, Department of Physiology, LSUHSC.

Jessica Bradley, Ph.D., Mentor, Doctoral Graduate Student; Joined the laboratory in April 2009. *Jessica received the following awards: 2011 and 2012 Society of Toxicology Meeting Travel Awards, 2013 SEBM Burton E. Sobel Young*

Investigator Award, 2010 Keystone Symposia "Extracellular Matrix and Cardiovascular Remodeling" in Tahoe City, CA, the Departmental Roheim Award for Excellence in Graduate Research; and the SEBM Burton E. Sobel Young Investigator Award; Jessica was nominated and elected as Chair of the Trainee Committee for the Cardiovascular Section of the American Physiological Society; Graduated 2013; Current position: Assistant Professor, Physiology, School of Osteopathic Medicine, Univ of Incarnate Word, San Antonio, Texas.

Tyrous Ward, Doctoral Committee Member, Department of Anatomy, LSUHSC: Graduated 2015.

Stephen Ford, Doctoral Committee Member, Department of Physiology, LSUHSC: Graduated 2017.

Alan Mouton, Mentor, Doctoral Graduate Student; Joined the laboratory in April 2013. *Alan received the 2014 SEBM Young Investigator Award and 2015 APS Caroline Tum Suden Travel Award; funded by AHA Predoctoral Fellowship; Departmental Roheim Award for Excellence in Graduate Research; Graduated 2017;* Current position: Postdoctoral Fellow at Univ of Mississippi Med Center, Jackson (Lab of Dr. John Hall).

Van Ninh, Mentor, Doctoral Graduate Student; Joined the laboratory in April 2014. *Van received the 2016 APS Cardiovascular Section Research Recognition Award, 2016 SEBM Young Investigator Award, and 2016 APS Caroline Tum Suden Travel Award; Departmental Roheim Award for Excellence in Graduate Research.*

Elia C. El Hajj, Mentor, Masters and Doctoral Graduate Student; Joined the laboratory in Fall 2013. Graduated with Masters in 2015 and Doctorate in 2018*. Eli received the 2017 SEBM Young Investigator Award Elia is funded by an AHA Predoctoral Fellowship and NIH F31 Predoctoral Fellowship from the NHLBI*. Current position: entering medical school.

Rishi Trivedi, Doctoral Committee Member, Department of Pharmacology, LSUHSC; Graduated 2017.

Zhen Li, Doctoral Committee Member, Department of Pharmacology, LSUHSC.

Joselyn Knowling, Mentor, post-graduate PREP student, Department of Physiology, Summer 2018-present, LSUHSC.

MEDICAL STUDENTS

David Tadin, Mentor, 2009 Summer Medical Student Research Program at LSU HSC; *David's oral presentation was selected for presentation at a national symposium in Austin, TX*

Greg Lee, Mentor, 2010 Summer Medical Student Research Program at LSUHSC

Kip Kryar, Mentor 2011 Summer Medical Student Research Program at LSUHSC

Jamie Lovitt, Mentor 2012 Summer Medical Student Research Program at LSUHSC

Morgan Walker, Mentor 2013 Summer Medical Student Research Program at LSUHSC

Milad El Hajj, Mentor and Supervisor; *Milad received 4th Place for his poster entitled "Lysyl Oxidase Inhibition in the Volume Overloaded Heart Prevents Adverse Collagen Remodeling, Apoptosis, and Cardiac Dysfunction." at the 2013 Medical Student Research Day. He was also awarded the APS Excellence in Professional Student (MD or DO) Research Travel Award for Experimental Biology 2014.*

VETERINARY STUDENTS (MERCK SUMMER RESEARCH FELLOWS; AUBURN UNIVERSITY)

Tanya Sommerville, 2002 (co-mentor)

Travis Wagner, 2002 (co-mentor)

Adam Bush, 2003 (co-mentor)

Allison Howe, 2004 (co-mentor)

Laurie L. Nelms, 2005 (mentor)

UNDERGRADUATE STUDENTS

Judith Clary, Mentor, 2006 - 2007 Office of Undergraduate Research Magellan Scholarship

Michael Le, Mentor, 2006 - 2007, McNair Scholar, currently enrolled in Medical School at USC

Margaret Crosby, Mentor, 2007 - 2008, Office of Undergraduate Research Magellan Scholarship, *Margaret was awarded Best Student Poster Award at the 2007 Palmetto Health/MUSC/USC Aging Research Day and Best Basic Sciences Poster at the 2007 Carolina Women's Health Forum*

Rebecca Lowe, Mentor, 2007 USC-Palmetto Health Undergraduate Summer Research Internship

Jonathan Nyugen, Supervisor of research during Spring/Summer 2008, currently enrolled in Medical School (USC)

Savannah Rutherford, Mentor, 2008 USC-Palmetto Health Undergraduate Summer Research Internship

Tyler Zachary, Mentor, McNeese State Chemical Engineering Department, Summer 2010 Louisiana Biomedical Research Network Scholarship

Kimberly Larkin, Mentor, Tulane, Biomedical Engineering, Undergraduate Honors Thesis, and Summer 2011 Louisiana Biomedical Research Network Scholarship

Sonu Shrestha, Mentor, University of New Orleans, Biology, Summer 2011 Louisiana Biomedical Research Network Scholarship

Perry Mitchell, Mentor, Premedical Student Summer Research Program (director Dr. Paula Gregory), Summer 2011

Keshab Sapkota, Mentor, Louisiana Tech, Biomedical Engineering, Summer 2012 Louisiana Biomedical Research Network Scholarship

Aimee Lacour, Mentor, Louisiana Tech, Biomedical Engineering, Summer 2013 Louisiana Biomedical Research Network Scholarship

Ranjita Shrestha, Mentor, Louisiana Tech, Biomedical Engineering, Summer 2013 Louisiana Biomedical Research Network Scholarship

Meagan Doherty, Mentor, Premedical Student Summer Research Program (director Dr. Paula Gregory), Summer 2013

Rachel Oppenheim, Mentor, Louisiana State University Baton Rouge, Premedical Student Summer Research Program (director Dr. Fern Tsien), Summer 2014

Kay McKenzie, Mentor, Northwestern, Summer 2014 and 2015, Louisiana Biomedical Research Network Scholarship

Courtney Evans, Mentor, Premedical Student Summer Research Program (director Drs. Fern Tsien and Paula Gregory), Summer 2015

Hope Shevchuk, Mentor, Worcester Polytechnic Institute, Premedical Student Summer Research Program (director Drs. Fern Tsien and Paula Gregory), Summer 2016

Megan Drewett, co-Mentor, Premedical Student Summer Research Program (director Drs. Fern Tsien and Paula Gregory), Summer 2016

HIGH SCHOOL TEACHERS

Kyle Duhon, Mentor, APS Frontiers in Science Outreach Program, Summer 2012

Aaron McCalister, Mentor, APS Frontiers in Science Outreach Program, Summer 2014

Thesis and Dissertation Committees:

DOCTORAL STUDENTS

Yan Du, Committee Member, Entered Biomedical Sciences Curriculum, Auburn University, Fall 2004; Transferred to Biomedical Sciences Curriculum, School of Medicine, University of South Carolina, Spring 2006

Sarah Mahne, Doctoral Committee Member, Department of Pharmacology, LSUHSC

Kristine Kurtz, Doctoral Committee Member, Department of Physiology, LSUHSC

Jessica Bradley, Mentor, Department of Physiology, LSUHSC

Vicky Rands, Doctoral Committee Member, Department of Physiology, Tulane Medical School

Alan Mouton, Mentor, Department of Physiology, LSUHSC

Stephen Ford, Doctoral Committee Member, Department of Physiology, LSUHSC

Tyrous Ward, Doctoral Committee Member, Department of Anatomy, LSUHSC

Van Ninh, Mentor, Department of Physiology, LSUHSC

Elia C. El Hajj, Mentor, Department of Physiology, LSUHSC

Rishi Trivedi, Doctoral Committee Member, Department of Pharmacology, LSUHSC

Zhen “Andrew” Li, Doctoral Committee Member, Department of Pharmacology, LSUHSC

MASTERS STUDENTS

Allison Howe, Committee Member, Entered Biomedical Sciences Curriculum Fall 2002; Current position: Practicing veterinarian graduated Auburn University, class of 2007

Laurie L. Nelms, Committee Member, Entered Biomedical Sciences Curriculum Fall 2003; Current position: Practicing veterinarian graduated Auburn University, class of 2008

Derrick Bell, Laboratory Rotation Spring 2008; Current Position: Biomedical Sciences graduate program, University of South Carolina

Elia C. El Hajj, Mentor, Department of Physiology, LSUHSC; Graduated 5/2015; Current Position: PhD Graduate Program, LSUHSC.

UNDERGRADUATE HONORS STUDENTS

Kimberly Larkin, Mentor, Tulane, Biomedical Engineering, Undergraduate Honors Thesis

Post-Doctoral or Post-Residency Fellows Trained:

Tetyana Voloshenyuk, Ph.D.; Joined the laboratory in Summer 2008 (LSU). *Tetyana received a travel award for oral presentation at the 2009 Sex Steroids and Gender in Cardiovascular-Renal Physiology and Pathophysiology, Broomfield, CO.*

Mario A. Claudino, Ph.D., Jan – July 2010; Visiting post-doctoral fellow from the Department of Pharmacology, University of Campinas, Campinas, São Paulo, Brazil. Currently Assistant Professor in the Department of Pharmacology at the University of Campinas (UNICAMP).

Joshua Oakes, Ph.D., July 2017 – present.

RESEARCH AND SCHOLARSHIP

Grants and Contracts:

Funded:

ACTIVE:

- 2017- 2021 NIH /NHLBI R01 (#R01HL135635), Chronic nicotine inhalation increases susceptibility to cardiovascular and pulmonary diseases through inhibition of local compensatory mechanisms (Role: PI); $1,500,000; Priority score: 18.
- 2016-2018 American Heart Association Grant-in-Aid (Role: PI); $140,000; Excess cardiac lysyl oxidase activity promotes systolic dysfunction (#16GRNT30440008). NCE through 2019.

PENDING

- 2019- 2021 NIH /NIAAA R21 (#R21AA027627), Prenatal alcohol exposure causes increased susceptibility to adverse cardiac remodeling and dysfunction (Role: PI).
- 2019-2024 NIH /NHLBI R01 (#R01HL147870), Detrimental effects of excess lysyl oxidase activity on cardiac remodeling and function (Role: PI).

COMPLETED:

- 2017 Saving Tiny Hearts Society (Role: PI); $65,000; Role of NOX-4 dependent Notch1 dysregulation on cardiac development in fetal alcohol syndrome
- 2014 - 2016 NIH/NIAAA R21, Ethanol-induced Cardiac Fibrosis and Dysfunction are Mediated by NADPH Oxidases (Role: PI); $250,000; Priority score: 10 (NCE through 2017).

- 2016 Saving Tiny Hearts Society (Role: PI); $65,000; Mechanisms of Abnormal Cardiac Development in Fetal Alcohol Syndrome
- 2011 - 2014 American Heart Association Grant-in-Aid (#11GRNT7700002), Role of Lysyl Oxidase in Heart Failure (Role: PI); $150,000
- 2013-2014 LSU-SOM Dean's Office: Research Enhancement Fund: Bridge Grant, Mechanisms of Cardiac Fibrosis (Role: PI); $65,000
- 2013-2014 LSU-SOM Alcohol and Drug Abuse Center Pilot Fund: EtOH abuse and Cardiac Fibrosis (Role: PI); $15,000
- 2000 - 2003 NIH/NHBLI R01-HL59981-01A1, Role of Myocardial Integrins in Ventricular Remodeling (Role: Co-Investigator), $1,017,000.
- 2000 - 2004 NIH/NHBLI R01-HL62228-01, Cardiac Mast Cell: Role in Pathogenesis of Heart Failure (Role: Co-Investigator), $1,532,000.
- 2001 - 2003 American Heart Association Beginning Grant-in-Aid, Gender Differences in the Development of Heart Failure (Role: PI); $100,000.
- 2002 - 2003 United Soybean Board (Role: PI); $10,000.
- 2003 - 2004 Auburn University Competitive Research Grant, Gender and Heart Disease (Role: PI); $10,000.
- 2004 - 2007 NIH/NHBLI R01-HL62228 Cardiac Mast Cells: Role in Pathogenesis of Heart Failure, (Role: Co-Investigator), $1,354,000.
- 2004 - 2007 Environmental Protection Agency, Mast Cell Mediated Cardiac Effects of Particulate Matter, (Role: Co-Investigator), $400,000.
- 2004 - 2008 NIH/NHBLI R01-HL73990 Sexual Hormones, Cardiac Mast Cells and Cardioprotection, (Role: Co-Investigator), $1,000,000.
- 2004 - 2008 American Heart Association National Scientist Development Grant, Cardiac Mast Cells and Gender-specific Cardioprotection (Role: PI); $236,000.
- 2008 - 2009 Philip-Morris, Mast Cell Mediated Cardiovascular Effects of Cigarette Smoke (Role: PI); $130,000.
- 2009 - 2012 Louisiana Board of Regents (LEQSF (2009-12)-RD-A-10), Mechanisms of Cardiac Damage from Inhaled Particulate Matter (Role: PI); $150,000.
- 2011 - 2013 NIH/NCRR COBRE (2P20RR018766-09-Kapusta), Junior Investigator Developmental Project, Lysyl oxidase and pressure overload (Role: Junior Developing Investigator).

Journal Publications (* denotes corresponding author):

Refereed:

1. **Gardner, J.D.**, and R.W. Schubert, Evaluation of myoglobin function in the presence of axial diffusion, *Adv. Exp. Med. Biol*., 411: 157-69, 1997.

2. **Gardner, J.D.**, and R.W. Schubert, Myoglobin function evaluated in working heart tissue, *Adv Exp Med Biol*, 454: 509-17, 1998.

3. Taylor, M.S., A.M. McMahon, **J.D. Gardner** and J.N. Benoit. Cyclic nucleotides and vasoconstrictor function: physiological and pathophysiological considerations*. Pathophysiology*. 5: 233-245, 1999.

4. Taylor, M.S., H. Gao, **J.D. Gardner** and J.N. Benoit. Effects of IBMX on norepinephrine-induced vasoconstriction in small mesenteric arteries. *Am. J. Physiol*. 276: G909-914, 1999.

5. **Gardner, J.D**., and J.N. Benoit. Effects of capacitative calcium entry on agonist-induced calcium transients in A7r5 vascular smooth muscle cells, *J. Biomed. Sci*., 7(4): 304-10, 2000.

6. **Gardner, J.D.,** G.L. Brower and J.S. Janicki. Gender differences in cardiac remodeling secondary to chronic volume overload, *J.Card. Failure*, 8(2): 101-107, 2002.

7. Brower, G.L., **J.D. Gardner** and J.S. Janicki. Gender mediated cardiac protection from adverse ventricular remodeling is abolished by ovariectomy. *Molecular and Cellular Biochemistry, 251 (1-2): 89-95,* 2003.

8. Murray, D.B., **J.D. Gardner,** G.L. Brower and J.S. Janicki, Endothelin-1 Mediates Cardiac Mast Cell Degranulation, MMP Activation and Myocardial Remodeling in Rats. *AJP: Heart and Circ.,* 287(5): H2295-H2299, 2004.

9. Janicki J.S., G.L. Brower, **J.D. Gardner**, A.L. Chancey, J.A. Stewart Jr. The dynamic interaction between matrix metalloproteinase activity and adverse myocardial remodeling. *Heart Fail Rev.* 9(1): 33-42, 2004.

10. Chancey A.L., **J.D. Gardner**, G.L. Brower and J.S. Janicki. Modulation of cardiac mast cell mediated extracellular matrix degradation by estrogen. *AJP: Heart and Circ*., 289(1):H316-21, 2005.

11. **Gardner, J.D.***, G.L. Brower and J.S. Janicki. Effects of dietary phytoestrogens on cardiac remodeling secondary to chronic volume overload in female rats. *J. Appl. Physiol*., 99(4):1378-83, 2005.

12. Janicki, J.S., G.L. Brower, **J.D. Gardner**, M.F. Forman, J.A. Stewart Jr, D.B. Murray and A.L. Chancey. Cardiac mast cell regulation of matrix metalloproteinases-related ventricular remodeling in chronic pressure or volume overload. *Cardiovascular Res.* 69(3): 657-665, 2006

13. Brower, G.L., **J.D. Gardner**, M.F. Forman, D.B. Murray T. Voloshenyuk, S.P. Levick, J.S. Janicki. The relationship between myocardial extracellular matrix remodeling and ventricular function. Eur J *Cardiothorac Surg*., 30(4):604-10, 2006.

14. Csiszar, A., N. Labinskyy, K. Smith, A. Rivera, E. Bakker, H. Jo, **J. Gardner**, Z. Orosz, Z. Ungvari. Down-regulation of BMP-4 expression in coronary arterial endothelial cells: role of shear stress and the cAMP/PKA pathway, *ATVB*, 27(4):776-82, 2007.

15. Murray, D.B., **J.D. Gardner**, S.P. Levick, G.L. Brower, L.G. Morgan, and J.S. Janicki. Response of Cardiac Mast Cells to Atrial Natriuretic Peptide, *AJP: Heart and Circ*., 293(2):H1216-22, 2007.

16. Levick, S.P., **J.D. Gardner**, M. Holland, M. Hauer-Jensen, J.S. Janicki, G.L. Brower. Protection from adverse myocardial remodeling secondary to chronic volume overload in mast cell deficient rats. JMCC, 45(1):56-61, 2008.

17. **Gardner, J.D.***, G.L. Brower, T.G. Voloshenyuk, and J.S. Janicki. Cardioprotection in Female Rats Subjected to Chronic Volume Overload: Synergistic Interaction of Estrogen and Phytoestrogens, *AJP: Heart and Circ*., 294(1):H198-204, 2008.

18. Murray, D.B., **J.D. Gardner**, G.L. Brower, and J.S. Janicki. Effects of Non-Selective Endothelin-1 Receptor Antagonism on Cardiac Mast Cell-Mediated Ventricular Remodeling in Rats, *AJP: Heart and Circ*., 294(3):H1251-7, 2008.

19. **Gardner, J.D.***, T.G. Voloshenyuk, D.B. Murray, G.L. Brower, and J.S. Janicki. Estrogen Attenuates Chronic Volume Overload Induced Structural and Functional Remodeling in Male Rat Hearts, *AJP: Heart and Circ, 298(2):H497-504, 2010.*

20. Voloshenyuk, T.G. and **J.D. Gardner***. Estrogen Improves TIMP-MMP Balance and Collagen Distribution in Volume-overloaded Hearts of Ovariectomized Females., *AJP: Reg., Integ. and Comp.*, 299(2):R683-93, 2010.

21. Voloshenyuk T.G., E.S. Landesman, E. Khoutorova, A.D. Hart, and **J.D. Gardner***. Induction of Cardiac Fibroblast Lysyl Oxidase by TGF-β1 Requires PI3K/Akt, Smad3, and MAPK Signaling, *Cytokine,* 55(1):90-7, 2011.

22. Voloshenyuk T.G., A.D. Hart, E. Khoutorova, and **J.D. Gardner***. TNF-α increases cardiac fibroblast lysyl oxidase expression through TGF-β and

PI3Kinase signaling pathways, *Biochem Biophys Res Commun,* 413(2):370-5, 2011.

23. Valente A.J., T. Yoshida, **J.D. Gardner**, N. Somanna, P. Delafontaine, and B. Chandrasekar. Interleukin-17A stimulates cardiac fibroblast proliferation and migration via negative regulation of the dual-specificity phosphatase MKP-1/DUSP-1, *Cell Signal.,* 24(2):560-8, 2012.

24. Nagalla K.T., M. Gole, M.A. Claudino, **J.D. Gardner**, and D.B. Murray. Alteration in myocardial prostaglandin D synthase expression in pressure overload-induced left ventricular remodeling in rats, *Exp Biol Med*, 237(1):24-30, 2012.

25. Bradley, J.M., J.B. Nguyen, A.C. Fournett, and **J.D. Gardner***. Cigarette smoke exacerbates ventricular remodeling and dysfunction in the volume overloaded heart, *Microscopy and Microanalysis*, 18(1):91-8, 2012.

26. Valente, A.J., S.S. Sakamuri, J.M. Siddesha, T.Yoshida, **J.D. Gardner**, R. Prabhu, U. Siebenlist, and B. Chandrasekar. TRAF3IP2 mediates interleukin-18-induced cardiac fibroblast migration and differentiation. *Cell Signaling*, 25(11):2176-84, 2013.

27. Siddesha J.M., A.J. Valente, S.S. Sakamuri, T. Yoshida, **J.D. Gardner**, N. Somanna, C. Takahashi, M. Noda, and B. Chandrasekar. Angiotensin II stimulates cardiac fibroblast migration via the differential regulation of matrixins and RECK. *JMCC*, 65:9-18, 2013.

28. Bradley, J.M., K.A. Cryar, M.C. El Hajj, E.C. El Hajj, and **J.D. Gardner***. Exposure to Diesel Exhaust Particulates Induces Cardiac Dysfunction and Remodeling. *Journal of Applied Physiology,* 115(7):1099-106, 2013.

29. Stewart J.A. Jr, **J.D. Gardner**, G.L. Brower and J.S. Janicki. Temporal Changes in Integrin-Mediated Cardiomyocyte Adhesion Secondary to Chronic Cardiac Volume Overload in Rats. *AJP: Heart and Circ*, 306(1): H101-8, 2014.

30. El Hajj, E.C., M.C. El Hajj, T.G. Voloshenyuk, A.J. Mouton, E. Khoutorova, P.E. Molina, N.W. Gilpin, and **J.D. Gardner***. Alcohol Modulation of MMP and TIMP Expression in the Heart Favors Collagen Accumulation, *Alcoholism: Clinical and Experimental Research,* 38(2): 448-56, 2014.

31. Siddesha, J.M., A.J. Valente, S.S. Sakamuri, **J.D. Gardner**, P. Delafontaine, M. Noda, B. Chandrasekar. Acetylsalicylic Acid Inhibits IL-18-Induced Cardiac Fibroblast Migration through the Induction of RECK. *J Cell Physiol.,* 229(7):845-55, 2014.

32. Molina, P.E., **J.D. Gardner**, F.M. Souza-Smith, and A.M. Whitaker. Alcohol Abuse: Critical Pathophysiological Processes and Contribution to Disease Burden. *Physiology (Bethesda)*, 29(3): 203-15, 2014.

33. **Gardner, J.D.*** and A.J. Mouton. Alcohol Effects on Cardiac Function, *Comprehensive Physiology*, 5(2):791-802, 2015.

34. El Hajj, E.C., M.C. El Hajj, V.K. Ninh, **J.D. Gardner***. Cardioprotective Effects of Lysyl Oxidase Inhibition Against Volume Overload-induced Extracellular Matrix Remodeling, *Experimental Biology and Medicine (Maywood)*, 241(5):539-49, 2016. *Selected as "Featured Article".*

35. Sakamuri S.S., A.J. Valente, J.M. Siddesha, P. Delafontaine, U. Siebenlist, **J.D. Gardner**, and C. Bysani. TRAF3IP2 mediates aldosterone/salt-induced cardiac hypertrophy and fibrosis. *Mol Cell Endocrinol.*, 429:84-92, 2016.

36. Mouton, AJ., V.K. Ninh, E.C. El Hajj, M.C. El Hajj, N.W. Gilpin, **J.D. Gardner****. Exposure to Chronic Alcohol Accelerates Development of Wall Stress and Eccentric Remodeling in Rats with Volume Overload. *Journal of Molecular and Cellular Cardiology*, 97:15-23, 2016. PMID: 27107489

37. Yariswamy, M., T. Yoshida, A.J. Valente, H.K. Kandikattu, S.S Sakamuri, J.M. Siddesha, S. Sukhanov, Z. Saifudeen, L. Ma, U. Siebenlist, **J.D. Gardner**, B. Chandrasekar. Cardiac-restricted Overexpression of TRAF3 Interacting Protein 2 (TRAF3IP2) Results in Spontaneous Development of Myocardial Hypertrophy, Fibrosis, and Dysfunction. *J Biol Chem*., 291(37): 19425-36, 2016.

38. Mouton, A.J., J.K. Maxi, F. Souza-Smith, G.J. Bagby, N.W. Gilpin, P.E. Molina, and **J.D. Gardner***. Alcohol Vapor Inhalation as a Model of Alcohol-Induced Organ Disease. *Alcoholism: Clinical and Experimental Research*, 40(8):1671-8, 2016. PMID: 27375174

39. El Hajj, M.C., V.K. Ninh, E.C. El Hajj, J.M. Bradley, **J.D. Gardner***. Estrogen Receptor Antagonism Exacerbates Cardiac Structural and Functional Remodeling in Female Rats. *Am J Physiol Heart Circ Physiol*., 312(1):H98-H105, 2017. PMID: 27769996

40. El Hajj, E.C., M.C. El Hajj, V.K. Ninh, J.M. Bradley, M.A. Claudino, **J.D. Gardner***. Detrimental Role of Lysyl Oxidase in Cardiac Remodeling, *J Mol Cell Cardiol.,* 109:17-26, 2017.

41. Silva, F.H., F.J.R. Veiga, A.G. Mora, R.S. Heck, C.C. De Oliveira, A. Gambero, C.F. Franco-Penteado, E. Antunes, **J.D. Gardner**, F.B.M. Priviero, M.A. Claudino MA. A novel experimental model of erectile dysfunction in rats with heart failure using volume overload. *PLoS One* 12(11), 2017.

42. El Hajj, E.C., M.C. El Hajj, V.K. Ninh, **J.D. Gardner**. Inhibitor of lysyl oxidase improves cardiac function and the collagen/MMP profile in response to volume overload. *Am J Physiol Heart Circ Physiol*, 315(3):H463-H473, 2018.

43. Ninh, V.K., E.C. El Hajj, A.J. Mouton, M.C. El Hajj, N.W. Gilpin**, J.D. Gardner.** Chronic Ethanol Administration Prevents Compensatory Cardiac Hypertrophy in Pressure Overload. Alcohol Clin Exp Res., 2018 (PMID: 29846943).

44. Oakes J.M., R.M. Fuchs, **J.D. Gardner**, E. Lazartigues, X. Yue. Nicotine and the Renin-Angiotensin System. AJP: Regulatory, Integrative and Comparative Physiology, 2018 (PMID: 30088946; PMCID: PMC6295500).

45. Ninh VK, E.C. El Hajj, A.J. Mouton, **J.D. Gardner**. Prenatal Alcohol Exposure Causes Adverse Cardiac Extracellular Matrix Changes and Dysfunction in Neonatal Mice. Cardiovasc Toxicol. (In Press).

Non-Refereed:

44. **Gardner, J.D.**, and R.W. Schubert, "Myoglobin facilitated oxygen diffusion in the heart: a mathematical assessment," Proceedings of the Fourteenth Southern Biomedical Engineering Conference, IEEE Inc., 42-45, 1995.

45. **Gardner, J.D.**, and R.W. Schubert, "Numerical evaluation of myoglobin facilitated oxygen diffusion in the heart," Proceedings of the Sixteenth Southern Biomedical Engineering Conference, IEEE Inc., 366-369, 1997.

46. **Gardner, J.D.***, D.B. Murray, and L.E. Wold. Cardiac dysfunction in diabetes. *Life Sciences*, 92(11):599-600, 2013.

47. **Gardner, J.D*** Alcohol binge drinking: getting to the heart of it. *Am J Physiol Heart Circ Physiol*, 310(11):H1606-7, 2016.

48. **Gardner JD**. Neuregulin-1β as a potential therapeutic for targeting fibroblasts in heart disease. *J Mol Cell Cardiol*. 112:132, 2017.

Published Abstracts:

1. **Gardner, J.D.**, and R.W. Schubert, "Myoglobin facilitated oxygen diffusion in the heart: a mathematical assessment," Microcirculation: Proceedings of the 42nd Annual Conference, 1995.

2. **Gardner, J.D.**, and J.N. Benoit, Vasopressin-induced mobilization of calcium in vascular smooth muscle cells: contribution of capacitative influx, *FASEB J.*, 12(9): A701, 1998.

3. Taylor, M.S., **J.D. Gardner** and J.N. Benoit. Cyclic nucleotide dependent alterations in vascular smooth muscle Ca^{2+} sensitivity*. FASEB J.*, 13(4): A93, 1999.

4. **Gardner, J.D**., M.S. Taylor and J.N. Benoit. Calcium-independent vasorelaxation by cAMP. *FASEB J*., 13(4): A422, 1999.

5. **Gardner, J.D**., M.S. Taylor, A. Sharma and J.N. Benoit. Cyclic nucleotide modulation of smooth muscle calcium and tension in phospholamban knockout mice*. FASEB J*, 2000.

6. **Gardner, J.D.**, G.L. Brower and J.S. Janicki. Gender differences in cardiac remodeling secondary to chronic volume overload, *FASEB J.* 15(5): A1138, 2001.

7. **Gardner, J.D.,** G.L. Brower and J.S. Janicki. Gender Mediated Cardiac Protection from Adverse Ventricular Remodeling Is Abolished by Ovariectomy, *XV Congress of the Cardiovascular System Dynamics Society*, 2002.

8. **Gardner, J.D.**, G.L. Brower and J.S. Janicki. Cardioprotective effects of estrogen in cardiac remodeling secondary to chronic volume overload, *FASEB J.,* 16(5): A1130, 2002.

9. Brower, G.L., **J.D. Gardner,** D.B. Murray and J.S. Janicki. Gender differences in adverse myocardial remodeling induced by tumor necrosis factor-alpha infusion in rats, *Circulation* 108(17): IV-244, 2003.

10. Brower, G.L., **J.D. Gardner,** J.C. Florek, M. Holland, M. Hauer-Jensen and J.S. Janicki. Cardioprotection in mast cell deficient rats with chronic volume overload, *JMCC* 37(1): 214, 2004.

11. **Gardner, J.D.,** A.L. Chancey, G.L. Brower and J.S. Janicki. Modulation of cardiac mast cell mediated extracellular matrix degradation by estrogen, *JMCC* 37(1): 213, 2004.

12. **Gardner, J.D.** and G.L. Brower. Inhalation of Particulate Matter Induces Cardiac Mast Cell Activation of Metalloproteinases, *Circulation* 110(17): III-56, 2004.

13. **Gardner J.D.**, D.B. Murray and G.L. Brower**.** Are the cardiac effects of particulate matter mast cell mediated? *JMCC,* 38(5): 831, 2005.

14. **Gardner J.D.**, D.B. Murray, C.L. Carpenter, J.B. Bradshaw and G.L. Brower. Can diesel particulate matter directly activate cardiac mast cells? *Proceedings of the 3rd Biannual U.S. EPA/NHLBI/NIEHS Sponsored Meeting on The Role of Air Pollutants in Cardiovascular Disease,* 2006.

15. Voloshenyuk T.G., J.L. McLarty, G.C. Melendez, J.B. Bradshaw, L.G. Morgan, S.P. Levick, **J.D. Gardner** and G.L. Brower. Oxidative stress mediated cardiac mast cell degranulation. *Proceedings of the 3rd Biannual U.S. EPA/NHLBI/NIEHS Sponsored Meeting on The Role of Air Pollutants in Cardiovascular Disease*, 2006.

16. **Gardner J.D.**, D.B. Murray, C.L. Carpenter, J.B. Bradshaw and G.L. Brower. Can diesel particulate matter directly activate cardiac mast cells? *FASEB J.,* 21(6): A1140, 2007.

17. Melendez G.C., T.G. Voloshenyuk, J.L. McLarty, J.B. Bradshaw, L.G. Morgan, S.P. Levick, **J.D. Gardner** and G.L. Brower. Sodium sulfite mediated oxidative stress triggers cardiac mast cell degranulation. *FASEB J*, 21(6): A1140, 2007.

18. Du Y., **J.D. Gardner**, G.L. Brower and J.S. Janicki. Ventricular myocyte amitotic hyperplasia during early stages of aortocaval fistula in adult rats. *FASEB J.,* 21(5): A583*,* 2007.

19. Du Y., D.B. Murray, **J.D. Gardner**, J.S. Janicki and G.L. Brower. Gender differences in Cardiac Remodeling and Inflammatory Cytokine Expression Induced by Volume Overload in Rats. *Circulation Research*, 101(5):E58, 2007.

20. Voloshenyuk T.G., A.F. Barnes, **J.D. Gardner**. 17 β-Estradiol Decreases Lysyl Oxidase and Increases Lysyl Oxidase pro-Peptide Expression in Cardiac Fibroblasts from Ovariectomized Rats. *Proceedings of the International Scientific/Practical Interdisciplinary Workshop*, 2008.

21. Barnes A.F., T.G. Voloshenyuk, **J.D. Gardner**. Acute Increase in TNF-alpha Expression in Heart Tissue of Ovariectomized Rats after Volume Overload. *Proceedings of the International Scientific/Practical Interdisciplinary Workshop*, 2008.

22. **Gardner, J.D.**, T.G. Voloshenyuk, D.B. Murray. Estrogen receptor antagonism and ovariectomy exacerbate ventricular remodeling in female rats. *Experimental Biology*, 2009.

23. Voloshenyuk, T.G., **J.D. Gardner**. Estrogenic Modulation of Lysyl Oxidase in Adult Cardiac Fibroblasts. *Experimental Biology*, 2009.

24. Voloshenyuk, T.G., **J.D. Gardner**. Improved TIMP-1/MMP-9 and TIMP-2/MMP-2 Balance in Volume Overloaded Hearts of Ovariectomized Rats after Estrogen Replacement. *APS Summer Conference on Gender and Cardiovascular Disease,* 2009 (selected for oral presentation and travel award).

25. Voloshenyuk, T.G., A.D. Hart, **J.D. Gardner.** Estrogen Improves Cardiac Collagen Distribution in Volume Overloaded Ovariectomized Rats by Modulation of MMP/TIMP Balance. *Louisiana NCRR/IDeA Biomedical Research Symposium,* 2010.

26. Bradley, J.M. and **J.D. Gardner.** Does the Inhalation of Diesel Exhaust Particulates Exacerbate the Progression of Hypertension in Ovariectomized Female Rats?, *Louisiana NCRR/IDeA Biomedical Research Symposium,* 2010.

27. **Gardner, J.D.**, J.M. Bradley, T.G. Voloshenyuk. Compensatory response of cardiac lysyl oxidase to chronic volume overload. *Experimental Biology*, 2010.

28. Voloshenyuk, T.G., and **J.D. Gardner**. IL-1β and TNF-α Differentially Regulate Lysyl Oxidase Expression and Activity in Adult Cardiac Fibroblasts. *Experimental Biology*, 2010.

29. Voloshenyuk, T.G., E. Khoutorova, A. Hart and **J.D. Gardner**. Regulation of Cardiac Fibroblast Lysyl Oxidase by TGF-β1 and TNF-α Requires PI3Kinase Signaling. *Keystone Symposia "Extracellular Matrix and Cardiovascular Remodeling"*, 2011.

30. Bradley, J.M. and **J.D. Gardner**. Inhaled Cigarette Smoke Accelerates Volume Overload Induced Cardiac Injury. *Keystone Symposia "Extracellular Matrix and Cardiovascular Remodeling"*, 2011 (selected for Student Award).

31. **Gardner, J.D.**, T.G. Voloshenyuk, M.A. Claudino and J.M. Bradley. Estrogen modulates myocardial collagen cross-linking and attenuates volume overload induced ventricular dilatation. *Experimental Biology*, 2011 (selected for oral presentation).

32. Bradley, J.M., and **J.D. Gardner**. Chronic exposure to diesel exhaust particulates induces cardiac remodeling and dysfunction. *Experimental Biology*, 2011.

33. Voloshenyuk, T.G., A.C. Fournett and **J.D. Gardner**. PI3K/Akt signaling mediates increased BMP-1 expression in response to TNF-α and TGF-β1 in cardiac fibroblasts. *Experimental Biology*, 2011 (selected for oral presentation).

34. Bradley, J.M. and J.D. Gardner. Cigarette smoke exacerbates ventricular remodeling and dysfunction in the volume overloaded heart. *Southeast Regional IDeA Meeting,* 2011.

35. Bradley J.M and J.D. Gardner. Exposure to tobacco smoke accelerates volume overload induced remodeling and dysfunction, *Gulf Coast Physiological Society Meeting,* 2011 (selected for Oral Presentation).

36. Bradley J.M and J.D. Gardner. Cigarette smoke exacerbates ventricular remodeling and dysfunction in the volume overloaded heart. *South Central Chapter of the Society of Toxicology Regional Meeting,* 2011.

37. Bradley J.M. and **J.D. Gardner**. Chronic exposure to diesel exhaust particulates induces ventricular remodeling and dysfunction. *Society of Toxicology Meeting,* 2012 (selected for student travel award).

38. Voloshenyuk T.G., K. Larkin, A. Fournett, and **J.D. Gardner**. Estrogen receptor dependence of lysyl oxidase expression and activity in cardiac fibroblasts. *Experimental Biology*, 2012.

39. Bradley J.M., T.M. Doggett, M. El Hajj, K. Pyakurel, J.W. Breslin, and **J.D. Gardner**. Cigarette smoke attenuates collagen production and wound healing by cardiac fibroblasts through inhibition of the HIF-1α pathway. *Experimental Biology*, 2012.

40. Bradley, J.M., M.C. El Hajj, and **J.D. Gardner**. Cigarette Smoke Induces Ventricular Remodeling Through Activation of the Aryl Hydrocarbon Receptor. *Society of Toxicology Meeting*, 2013 (selected for student travel award).

41. El Hajj, M.C., T.G. Voloshenyuk, M.A. Claudino, J.M. Bradley, and **J.D. Gardner**. Lysyl oxidase inhibition in the volume overloaded heart prevents adverse collagen remodeling, apoptosis, and cardiac dysfunction. *Experimental Biology*, 2013.

42. Bradley, J.M., M.C. El Hajj, A.J. Mouton, E.C. El Hajj, and **J.D. Gardner**. Differential response of cardiac NOX-2 and -4 to mild and severe pressure overload. *Experimental Biology*, 2013 (selected for SEBM Burton E. Sobel Young Investigator Award).

43. Mouton, A.J., E.C. El Hajj, M.C. El Hajj, N.W. Gilpin, and **J.D. Gardner.** Role of NADPH Oxidases in Ethanol Induced Cardiac Fibrosis. Gulf Coast Physiological Society Meeting, Mobile, AL 2013 (Selected for oral presentation).

44. Mouton, A.J., M.C. El Hajj, M.K. Walker, P.E. Molina, N.W. Gilpin, **J.D. Gardner**. Ethanol-induced cardiac fibrosis is mediated by NOXs. *Experimental Biology*, 2014.

45. El Hajj, M.C., E.C. El Hajj, J.M. Bradley, and **J.D. Gardner.** Inhibition of lysyl oxidase activity reverses volume overload fibrosis and improves cardiac function. *Experimental Biology*, 2014 (selected for APS Professional Student Travel Award).

46. Mouton, A.J., M.C. El Hajj, P.E. Molina, N.W. Gilpin, and **J.D. Gardner**. Alcohol Worsens Progression of Heart Failure in a Rat Model of Volume Overload. *Experimental Biology 2015.*

47. McCalister, A., A.M. Mouton, M. Kay, and **J.D. Gardner**. Excess Alcohol Consumption and Cardiac Fibrosis*. Experimental Biology 2015*

48. Mouton, A.J., N.W. Gilpin, P.E. Molina, and **J.D. Gardner**. *Chronic Intermittent Alcohol Exposure Exacerbates Volume-Overload Induced Heart Failure. Research Society on Alcoholism meeting 2015.*

49. McDonough, K., M. Levitzky, **J. Gardner**, D. Lofaso, and A. Pellett. Integration of Echocardiography, Simulation and Traditional Teaching of Cardiovascular Physiology to First Year Medical Students. *Experimental Biology 2016.*

50. Mouton, A.J., V.K. Ninh, E.C. El Haj2, M.C. El Hajj, N.W. Gilpin, and **J.D. Gardner**. Chronic Alcohol Exposure Attenuates Compensatory

Hypertrophy and Remodeling and Accelerates Cardiac Dysfunction in a Rat Model of Volume Overload. *Experimental Biology 2016*.

51. Ninh, V.K., E.C. El Hajj, M.C. El Hajj, A.J. Mouton and **J.D. Gardner**. Lysyl Oxidase Inhibition Alleviates Fibrosis and Dysfunction in Rodents with Established Cardiac Disease. *Experimental Biology 2016*.

52. El Hajj, E.C., V.K. Ninh, M.C. El Hajj, A.J Mouton, and **J.D. Gardner**. Cardioprotective Effects of Lysyl Oxidase Inhibition. *Experimental Biology 2017.*

53. El Hajj, E.C., V.K. Ninh, M.C. El Hajj, and J.D. Gardner. Inhibition of Lysyl Oxidase Activity Prevents Volume Overload Diastolic and Systolic Dysfunction. *Experimental Biology 2018*.

54. Yue X., T.M. Basting, T.W. Flanagan, J. Xu, T.D. Lobell, N.W. Gilpin, **J.D. Gardner**, E. Lazartigues. Nicotine Downregulates the Compensatory Angiotensin-Converting Enzyme 2/Angiotensin Type 2 Receptor of the Renin-Angiotensin System. *Annals of the ATS*. 15(2):S126-S127, 2018.

Research Review Committees:

- 2006 Reviewer for Health Research Board, Ireland
- 2007 - 2008 Mid-Atlantic Affiliate American Heart Association Study Section
- 2008 Reviewer for the Kentucky Science and Engineering Foundation
- 2009 Greater Southeast Affiliate American Heart Association Study Section
- 2010 American Heart Association Card Bio 3 Study Section
- 2011 - 2013 Reviewer for Pennsylvania's Commonwealth Universal Research Enhancement Program
- 2012 / 2016 American Heart Association Card Bio 4 Study Section
- 2012 - 2016 SEBM Young Investigator Award Review Committee
- 2013 - 2018 Reviewer for Qatar National Research Foundation
- 2013 Reviewer for Ochsner Translation Medical Research Initiative
- 2013 Reviewer for the Research Committee of the Faculty of Medicine at the American University of Beirut
- 2014 - 2016 California Tobacco-Related Disease Research funding Program (TRDRP)
- 2016 American Heart Association IRG Study Section
- 2017-2018 Pennsylvania Department of Health
- 2017-2018 Florida Department of Health
- 2017-2018 NIH/FDA TCORS Study Section

- 2018 *American Heart Association Study Section*

Scientific Presentations:

Invited Presentations at Scientific Meetings:

INTERNATIONAL:

Gardner, J.D., J.M. Bradley, and M.C. El Hajj. Lysyl oxidase, collagen cross-linking, and cardiac dysfunction. *IUPS 2013*, Birmingham, UK.

NATIONAL:

Gardner, J.D., and R.W. Schubert, "Myoglobin facilitated oxygen diffusion in the heart: a mathematical assessment," Microcirculation: Proceedings of the 42nd Annual Conference, 1995.

Gardner, J.D., G.L. Brower and J.S. Janicki. Gender Mediated Cardiac Protection from Adverse Ventricular Remodeling Is Abolished by Ovariectomy, XV Congress of the Cardiovascular System Dynamics Society 2002.

Gardner, J.D. and G.L. Brower. Inhalation of Particulate Matter Induces Cardiac Mast Cell Activation of Metalloproteinases, *Circulation* 110(17): III-56, 2004.

Voloshenyuk, T.G. and **J.D. Gardner**. Improved TIMP-1/MMP-9 and TIMP-2/MMP-2 Balance in Volume Overloaded Hearts of Ovariectomized Rats after Estrogen Replacement. *APS Summer Conference,* 2009.

Gardner, **J.D.,** J.M. Bradley, and T.G. Voloshenyuk. Compensatory response of cardiac lysyl oxidase to chronic volume overload. *Experimental Biology,* 2010.

Gardner, J.D., T.G. Voloshenyuk, M.A. Claudino and J.M. Bradley. Estrogen modulates myocardial collagen cross-linking and attenuates volume overload induced ventricular dilatation. *Experimental Biology*, 2011.

Gardner, J.D., "Ethanol Exacerbates Cardiac Injury" for symposium Alcohol and Trauma: Immunologic Consequences for the upcoming Research Society on Alcoholism, 2014.

Gardner, J.D. "Alcohol and cardiac remodeling: potential mechanisms"; Gordon Conference on Alcohol-Induced End Organ Diseases, 2017.

REGIONAL:

Gardner, J.D. , "Lysyl Oxidase, Dilatation and Dysfunction in the Volume Overloaded Heart" Gulf Coast Physiological Society Meeting, Jackson, MS, 2011.

Invited Presentations and Seminars:

OUTSIDE OF LSUHSC:

2003 American Heart Association Local Chapter, "Gender Differences in Congestive Heart Failure", Auburn, AL.

2008 Commencement Address, "Get Out of Your Comfort Zone", Pearl River Community College, Poplarville, MS.

2010 "Lysyl Oxidase: A Key Player in Cardiac Decompensation?", Department of Physiology, Tulane School of Medicine, New Orleans, LA

2010 "Lysyl Oxidase and Cardiac Remodeling", Division of Cardiology, University of Texas Health Science Center, San Antonio, TX

2011 Gulf Coast Physiological Society Meeting, "Lysyl Oxidase, Dilatation and Dysfunction in the Volume Overloaded Heart", Jackson, MS

2012 "Cardiac Fibrosis and Heart Failure", Summer Undergraduate Research Program for the Louisiana Biomedical Research Network, Louisiana State University, Baton Rouge, LA.

2013 "Lysyl Oxidase and Heart Failure", Department of Pharmacology, Tulane School of Medicine, New Orleans, LA.

2013 IUPS Meeting, "Lysyl oxidase, Collagen Cross-linking, and Cardiac Dysfunction", Birmingham, UK.

2014 "Lysyl oxidase, Collagen Cross-linking, and Heart Failure", Department of Biology, Mississippi State University, Starkville.

2016 "Lysyl Oxidase in the Volume Overloaded Heart: Friend or Foe?", Department of Physiology, Tulane School of Medicine, New Orleans, LA

ADDITIONAL PRESENTATIONS WITHIN LSUHSC:

2009 Department of Pharmacology, "Ovarian Hormone Dependent Protection against Adverse Left Ventricular Remodeling"

2009 New Faculty Orientation Session on IACUC Protocols

2010 Department of Pharmacology, COBRA Developmental Session, "Lysyl Oxidase and Heart Failure"

2010 Department of Cell Biology and Anatomy, "Role of Lysyl Oxidase in Ventricular Dilatation and Heart Failure"

2011 Department of Pharmacology, COBRA Developmental Session, "Volume Overload, Lysyl Oxidase and Heart Failure: R01 Resubmission"

2011 Department of Pharmacology, COBRA Developmental Session, "Lysyl Oxidase and Pressure Overload: New R01 Application"

2012 Department of Pharmacology, COBRA Developmental Session, "Role of Lysyl Oxidase in Volume Overload Induced Cardiac Dysfunction"

2012 Department of Pharmacology, COBRA Developmental Session, "NOX-dependent Mechanisms of Fibrosis in Pressure Overload: Discussion of Preliminary Data"

2013 LSUHSC Alcohol and Drug Abuse Center of Excellence retreat, "Alcohol and Cardiac Fibrosis"

2014 Department of Physiology, "Lysyl oxidase, Collagen Cross-linking, and Heart Failure"

2015 Department of Physiology, "Cardioprotective Effects of Lysyl Oxidase Inhibition"

2015 Cardiovascular Center Retreat, "Cardioprotective Effects of Lysyl Oxidase Inhibition"

2016 Department of Pharmacology, "Lysyl Oxidase in the Volume Overloaded Heart: Friend or Foe?"

Editorial Posts and Activities:

Journal editorships and associate editorships:

- 2011-2016 Associate Editor for *Life Sciences* and *Endocrine*
- 2011 Guest Editor for a special issue of *Life Sciences* on Diabetes and Cardiac Dysfunction
- 2015-present Associate Editor for American Journal of Physiology: Heart and Circulatory Physiology
- 2018-present Executive Editor for Biomedicine and Pharmacotherapy

Reviewer status:

- Invited Reviewer for *American Journal of Physiology (AJP): Regulatory, Integrative and Comparative Physiology, AJP: Heart and Circulatory Physiology, AJP: Lung, Cellular and Molecular Physiology, Clinical Science, Cardiovascular Research, Circulation: Cardiovascular Genetics, Peptides, Journal of Women, Cytokine*, *Microscopy and Microanalysis, Experimental Biology and Medicine, Life Sciences*, *PlosOne, Endocrine, Computers and Mathematics with Applications, Journal of Gerontology: Biological Sciences, Cardiovascular Toxicology, Journal of Endocrinology, Journal of Molecular and*

Cellular Cardiology, Alcohol, Alcoholism: Clinical and Experimental Research, Shock, Journal of Applied Physiology, Hypertension, and others.

SERVICE ACTIVITIES

University/Institutional Service:

Departmental committees and service (Physiology):

- 2012 - present Shared Instrumentation and Core Laboratories Coordinator
- 2012 - 2014 Departmental Seminar Series Coordinator
- 2012 - 2015 Summer Trainee Coordinator
- 2014 - present Departmental Faculty Search Committee (2015/2016 Chair)
- 2018 - present Departmental Teach Task Force Chair

School of Medicine committees:

- 2008 - present Scholarships and Student Awards Committee
- 2008 - present LSUHSC-NO School Disaster Preparation Go-Team
- 2011 - present Communications Committee
- 2013 - present Strategic Planning Committee: Communications
- 2014 - present Institutional Animal Care and Use Committee
- 2016 - present Faculty Assembly

Other LSUHSC service:

- 2011 - 2013 Graduate Student Research Day Judge
- 2012 - 2015 LSUHSC Recruitment Table at the Experimental Biology Undergraduate Research Poster Session

Committee and Scientific Service Outside of LSUHSC:

National committees:

- 2010 - 2016 APS Perkins Award Committee
- 2011 - 2016 American Physiological Society (APS) Cardiovascular Section Nominating Committee

- 2011 - 2016 APS Chapter Advisory Committee
- 2011 - 2016 Councilor for the Society of Experimental Biology and Medicine (SEBM)
- 2013 - 2016 SEBM Membership Committee
- 2014 - 2017 Treasurer of the APS Cardiovascular Section
- 2016 - 2018 SEBM Nominating Committee (Chair)

Regional committees:

- 2011 - 2013 Councilor, Treasurer, and Nominating Committee of GCPS
- 2011 - 2016 APS Representative for the GCPS
- 2013 - 2015 President of Gulf Coast Physiological Society (GCPS)

Scientific Meeting Development and Contribution:

- 2010 Chair of Featured Topic Session for Experimental Biology sponsored by the Cardiovascular Section entitled, “Extracellular Matrix and Pathology of Cardiovascular Disease.”
- 2012 Chair of Featured Topic Session for Experimental Biology sponsored by the Cardiovascular Section entiled, “Extracellular and Intracellular Signaling Mechanisms of Cardiac Remodeling.”
- 2014 co-Chair of Featured Topic Session for Experimental Biology sponsored by the Cardiovascular Section entitled, “Novel Mechanisms of Diabetic Cardiac Dysfunction.”

Community Service Activities and Scientific Outreach:

- 2009 - 2011 Volunteer Assistant for 7/8 year old and 9/10 year old Youth Football Programs at Pelican Park, Mandeville, LA
- 2009 - 2014 Local and Regional Science Fair Judge
- 2009 - 2015 APS K-12 Outreach Volunteer (Science Fair Award)
- 2012 Mentor for APS Frontiers in Science Awardee, Mr. Kyle Duhon. This APS outreach program provides a laboratory research and training experience for K-12 teachers.
- 2014 Mentor for APS Frontiers in Science Awardee, Mr. Aaron McCalister.
- 2009 - 2018 APS K-12 Outreach Volunteer (Physiology Understanding Week; hands on physiological activities for elementary, middle and junior high school students)