CURRICULUM VITAE

Analia S Loria Ph.D. Associate Professor Department of Pharmacology and Nutritional Sciences College of Medicine University of Kentucky



I. GENERAL INFORMATION

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II. EDUCATION

03/1995-11/1998 University of Buenos Aires

Buenos Aires, Argentina

BS Major

03/1998-09/2000 University of Buenos Aires

Buenos Aires, Argentina

MS, Biochemistry

10/2003-02/2007 University of Murcia

Murcia, Spain

Department of Physiology, School of Medicine

Ph.D., Physiology

07/2007-10/2011 Medical College of Georgia

Augusta, GA

Vascular Biology Center Postdoctoral Fellow

III. PROFESSIONAL EXPERIENCES

03/2001-10/2003 Hospital de Clinicas Jose de San Martin

Buenos Aires, Argentina.

Clinical Biochemist, Biomedical Biochemistry,

Intensive Care Unit Laboratory

IV. ACADEMIC APPOINTMENTS

Faculty

11/2011-08/2013 Medical College of Georgia

Augusta, GA

Research Associate/Junior Faculty

09/2013-062019 University of Kentucky

Lexington, KY

Department of Pharmacology and Nutritional Sciences

Assistant Professor Tenure Track position

07/2019-present University of Kentucky

Lexington, KY

Department of Pharmacology and Nutritional Sciences

Associate Professor

V. HOSPITAL or CLINICAL APPOINTMENTS

02/1997-08/2000 Hospital Pedro de Elizalde

Buenos Aires, Argentina.

Research Assistant, Immunology Division.

VI. TEACHING ACTIVITIES

University Faculty

02/1996-12/1999 University of Buenos Aires

Buenos Aires, Argentina

Physiology Instructor, Department of Physiology

School of Pharmacy and Biochemistry

03/2002/-12/2002 **Barcelo Foundation**

Buenos Aires, Argentina Biochemistry Instructor School of Medicine

02/1998-06/2003 University of Buenos Aires

Buenos Aires, Argentina

Human Physiology, Semester course for Biochemistry students.

VI. TEACHING ACTIVITIES~ continued

09/2005-06/2006 University of Murcia, School of Medicine

Murcia, Spain

Human Physiology, 6-hour course for Medical and Nursing Students.

04/2011-08/2011 Medical College of Georgia-Augusta University

Augusta, GA

Biosciences, Student Educational Enrichment Program (SEEP)

For pre-college and college students who are under-represented in the health

profession and/or socially or economically disadvantaged

05/2009-08/2012 Medical College of Georgia-Augusta University

Augusta, GA

The summer STAR (Student Training and Research) Program for the

undergraduate students in biomedical sciences.

04/2012-08/2012 **Medical College of Georgia-Augusta University**

Augusta, GA

Course Principles of Biology, SEEP program for minorities,

72-hour course for pre-college students.

02/2014-present **University of Kentucky**

IBS 608 Nutritional Modulation of Chronic Disease, 2-hour course.

Title: Obesity and diabetic kidney disease.

Students 30% agree and 70% strongly-agree in positive outcomes.

02/2015-2016 **University of Kentucky**

IBS 608 Pharmacology: Drugs and Receptors, 3-hour course.

Title: Steroids.

Overall evaluation: 4.5 on a 5-point scale.

Spring 2016 **University of Kentucky**

NS704 Current Topics in Nutritional Sciences, 2-hour Journal Club.

Overall evaluation 3.86 on a 4-point scale.

University of Kentucky 02/2016-present

PHA 622 Pharmacology, 3-hour course.

Title: Renin-Angiotensin System.

Overall evaluation 3.33 on a 4-point scale.

Fall 2017-2018 **University of Kentucky**

HON 152-001 Cell Injury and Human Disease, 1-hour lecture

Title: Hypertension and vascular injury.

2019-2020 **University of Kentucky**

IBS 608 Special Topics in IBS, seven sessions, 1-hour course.

Title: Sex as a Biological Variable in Research.

VII. ADVISING ACTIVITIES

2017-present Mentor Undergraduate Summer Training in Cardiovascular Research at UK

Department of Physiology

2019-present Mentor SURF summer program

Department of Pharmacology and Nutritional Sciences

2019-present Mentor ABT program

Thesis & Dissertation, University of Kentucky

Graduate Students

03/2014-2018 Megan Rhoads, Biology, College of Arts and Sciences (Committee member)

Fall 2018 Jacqueline Leachman, Nutritional Sciences (Mentor)

-Winner of Trainee Onsite Competition at the American Heart Annual

meeting, Chicago, September 2018.

-3rd place Onsite Poster Awards Saha Cardiovascular Research Day 2018.

-Outstanding Research Recognition, American Physiological Society,

Endo and Metab Section, EB 2021

Fall 2019 Nermin Ahmed, Nutritional Sciences (Mentor)

Fall 2020 Kellea Nichols, Nutritional Sciences (Committee member)

Spring 2021 Gertrude Arthur, Nutritional Sciences (Committee member)

Spring 2021 Maria Vanegas, Biology (Committee member)

Masters Students

Fall 2016 Arguna Che Chen, Master Student, Nutritional Sciences (Mentor)

Spring 2017 Karriariel Mitchel, Master Student, Medical Sciences (Mentor)

Taylor Claybaugh, Master Student, Medical Sciences (Committee member)

Fall 2017 Jacqueline Leachman, Master Student, Nutritional Sciences (Mentor)

Patrick Molina, Master Student, Biology (Committee member) Spring 2021

Postdoctoral fellows

07/2014-06/2016 Margaret Murphy, PhD.

Pharmacology and Nutritional Sciences:

Best postdoctoral presentation at the UK BBDOC 2016.

02/2018-present Carolina Dalmasso, PhD.

UK BBDOC Travel Award, 2019

Und	ergraduate	students
	or Si mannio	State

2014 Rachel Webster, pre-med BIO395 Logan Evans, pre-med, BIO395 Vanessa Tabor, pre-med, PEPP Sumer program 2015 Lauren Schmuckie, pre-med, Bio395 Tyler Garner, pre-med, BIO395 Caleb Wills, pre-med, PEPP Sumer Program Lucas Gilbert, pre-med, PEPP Sumer Program 2016 Tyler Garner, pre-med, BIO395 Caleb Wills, pre-med, CHEM395 Gant Unfriend, pre-med, CHEM395 Ellen Combs, pre-med, Biology, BIO395 Tucker Scheweickart, pre-med, PEPP Sumer Program Blake Herald, pre-med, Biology, BIO395 2017 Jackeline Leachman, Summer Research II Lucas Gilbert, ABT395 Blake Herald, pre-Med, Biology, BIO395, awards: -Recipient of Barbara A. Horwitz and John M. Horowitz Outstanding Undergraduate Abstract Awards 2017, Experimental Biology, Chicago, IL. 2018 Stephanie Hayden, BIO395 Haris Ahsfaq, BIO395 Celia Ritter, BIO395 (spring and fall) Tharunika Venkatesan, Bio199 Tucker Jones, ABT395 Sophia Mounce, BIO395 2019 Sophia Mounce, BIO395, Honors Capstome Sara Green, SURF Summer Program, ASPET Samantha de Jesus, ABT301, awards: -American Heart Association Undergraduate Summer Training in Cardiovascular Research, 2018 -Glenn B. Collins Research Achievement Award in Agricultural Biotechnology, 2019 2020 Sunny Ghuneim, ABT Samantha DeJesus, ABT Cole Cincineli, Bio 395 2021 Spring Irena Antic, Bio 395 Landen Bramel, Bio 395 Sunny Ghuneim, ABT Summer Hollie Clifton, SURF Alana Kassis, CAFE Landen Bramel, Bio 39 Fall Hollie Clifton, Bio 395 Alana Kassis, Bio 395 Cole Cincineli, Master Biomedical Sciences

Jena Malone, ABT

VIII. ADMINISTRATIVE ACTIVITIES & UNIVERSITY SERVICE

University of Kentucky

2013-present	Judge, Cardiovascular Research Day
2014-present	Judge, Barnstable Brown Research Day
2014-present	Judge, CCTS spring Conference

Interviewer for IBS students' admission 2014-present

2016-present CCTS Review panel

2018 Preparation of a Brief at the request of President Capilouto entitled "Health

Disparities and Obesity Risk"

VIII. ADMINISTRATIVE ACTIVITIES & UNIVERSITY SERVICE

Department of Pharmacology and Nutritional Sciences, University of Kentucky

Co-organizer of the annual "Healthy Hearts for Women Symposium" 2014-present

The Healthy Hearts for Women Symposium was created to synergize with the GO RED FOR WOMEN DAY (American Heart Association) to highlight clinical and preclinical research focused on sex differences in cardiovascular disease risk. Its timely focus also addresses more recent NIH requirements to incorporate sex as a biological variable in research. I brought this initiative to UK and patterned it on a similar conference at my former institution. The organization of the Symposium is closely related to my scientific mission and passion for understanding sex-specific mechanisms associated with cardiovascular disease. This Symposium highlights UK research, in addition to sponsoring visits from distinguished researchers studying cardiovascular and metabolic disease in women. Our goal is to bring together different types of expertise and approaches and foster collaborations to better improve the cardiovascular and metabolic health of women. This event has grown considerably over the last 4 years and is sponsored by my department with additional funds from the Saha Cardiovascular Research Center, the Gill Heart Institute, the Barnstable Brown Diabetes and Obesity Center and the Office of the Vice President for Research.

IX. HONORS & AWARDS

09/2006	New Investigator	for European Fellows	supported by Astra Zeneca,	High
0272000	1 to the first gates	Ter Burepeum Teme ws	supported by Fishia Zenicea,	

Blood Pressure Council Meeting, San Antonio, TX.

04/2009 American Physiological Society (APS)

Postdoctoral Research Recognition Award support by an Educational Grant

from Data Sciences, Inc. APS, WEH section, New Orleans, LA.

10/2010 Obesity Summit Travel Award. "Hot Topic" oral presentation, Jackson, MS.

04/2010 American Physiological Society

Postdoctoral Research Recognition Award supported by an Educational grant

from Data Sciences Inc.

APS, Water and Electrolytes Homeostasis (WEH) section, Anaheim, CA.

11/2011 American Physiological Society

	Women's Health Research Center Travel Award. APS, Physiology of Cardiovascular Disease: Gender Disparities, Jackson, MS.
09/2011	Medical College of Georgia Distinguished Postdoctoral Fellow. Vascular Biology Center, Medical College of Georgia (Augusta University approved title).
04/2011	American Physiological Society Juan Carlos Romero and Postdoctoral Research Recognition Award WEH section, Washington, DC.
09/2014	American Heart Association Elected Fellow of the American Heart Association (FAHA)
09/2015	American Heart Association Kidney Council New Investigator Travel Award. High Blood Pressure Council Meeting, Washington, DC.
06/2016	FASEB. Summer Research Conference Travel Award Junior Investigator
11/2017	Carl Storm Underrepresented Minority (CSURM) Fellowship to support your participation in the 2018 Angiotensin Gordon Research Conference
04/2018	Data Sciences International New Investigator Award, APS, Water and Electrolytes Homeostasis (WEH) Section, San Diego, CA. This award recognizes an outstanding investigator in the early stages of his or her career and is evaluated by a committee comprised of peers.
08/2019	American Physiological Society. Research Career Enhancement Award

X. PROFESSIONAL ACTIVITIES, PUBLIC SERVICE & PROFESSIONAL **DEVELOPMENT**

Memberships

2005-present	American Heart Association (AHA)
2007-present	American Physiological Society (APS)
2012-present	Society for Developmental Origins of Health and Disease (DOHaD)
2018-present	International Society of Hypertension (ISH)
2018-present	American Society for Pharmacology and experimental therapeutics (ASPET)
Advisory Groups	
2011-2012	Medical College of Georgia-Augusta University Search Committee for Kupperman Chair in Cardiovascular Research

2019-present **University of Kentucky**

Faculty Recruit Search Committee member

X. PROFESSIONAL ACTIVITIES~ continued

2012-2015 **Communications Committee American Physiological Society**

Role: Trainee Member of the American Physiological Society

2013-2015 **American Heart Association**

Role: Trainee Advocacy Member.

2015 **American Physiological Society**

WEH Section Experimental Biology 2016

Symposium Organizer-Chair

Title: Origins of Adult Cardiovascular and Metabolic Disease

2017 **American Physiological Society**

Cardiovascular Section

Experimental Biology 2016 Symposium Organization

Title: Sex differences in Cardiovascular and Metabolic Disease

2017-2020 **American Physiological Society**

WEH Section

Councilor at Large: International

2019 Developmental Origins of Adult Disease (DOHaD) International Society

Symposium Organizer-Chair

Title: Sex differences in the developmental origins of cardiovascular disease

2018-2019 **American Physiological Society**

WEH Section Awards Committee

2019-2021 **American Physiological Society**

Education Committee

This Committee is composed of 12 regular members of the Society. Representatives from other physiology groups may also be appointed by Council. The duties of the Education Committee are to provide leadership and guidance in the area of physiology education of K-12, undergraduate, graduate, and professional students to encourage excellence in physiology education and the development of young scientists. The education Committee promotes interests in careers in the physiological sciences, encourages physiology education and the development of young scientists, and provides resources and professional development in physiology education and training.

2019 **American Physiological Society**

International Opportunity Program (IOP) entitled "Autonomic Imprinting

due to Perinatal Stressors", Chair.

2019 **University of Kentucky**

Search Committee member for DPNS

Women in Physiology and Medicine (WIMS) 2020-present

Co-Chair Programming Subcommitte

Diversity and Inclusion Ambassador, Department of Pharmacology and 2020-Present

Nutritional Sciences, UK

2020-Present Cardiovascular Research Priority Area, Internal Advisory Committee,

College

2021-Present Biomedical Advisory Committee, College of Medicine, UK.

Review Panels

11/15-2017 **University of Kentucky**

Junior Investigator Reviewer for CCTS

American Heart Association 04/2015-present

Committee Name: Vascular BioBP BSc2

12/2017 **National Institutes of Health**

Hypertension and microcirculation Study Section, Feb 2018 meeting

05/1018 **National Center for Complementary and Integrative Health**

(NCCIH / NIH)

Discovery and Biological Signatures of Diet-Derived Microbial Metabolites

Special Emphasis Panel/Scientific Review Group ZAT1 AJT (08) R

(Jul 2018 meeting)

2021 **American Heart Association**

Career Development Award Vascular 1, May 2021 meeting

2021 **National Institutes of Health**

Special Emphasis Panel/Scientific Review Group 2021/10 HLBP (13) 1, May

2021 meeting

2021 **National Institutes of Health**

Integrated Vascular Physiology and Pathology (IVPP), June 2021 meeting

07/2021-06/2025 **National Institutes of Health**

NHLBI Mentored Transition to Independence (MTI) Review Committee

Editorial Boards

09/2015-present American Journal of Physiology-Renal

04/2017-present Frontiers-Pharmacology

Current Journal Peer-Reviewing

Canadian Journal of Pharmacology and Physiology

Journal of Physiology and Biochemistry

American Journal of Hypertension

American Journal of Physiology - Renal Physiology

American Journal of Physiology - Endo

American Journal of Physiology - Regulatory

Hypertension

Neurobiology of Stress

Nature Reports

Professional Development

University of Kentucky

Institutional Staff Office

Faculty and Professional Development Program Workshops

02/2014 "Promotion and Tenure Beginnings...tips on getting started"

02/2015 "Distressed and Distressing Students"

09/2017 "Promotion and Tenure Work Shop" by Dr. Lisa Tannock.

10/2017 "How to Increase Your Impact as a Mentor: Talent Acquisition".

Guest Speaker - Janet Bickel

12/2018 "How to navigate early and mid-career positions in Academia" (WIMS)

UK COM Reach Program

2016-2017 Committee members: Dr. Jim Geddes, Michael Rowland and Dr. Sharon

Walsh

American Heart Association

Council on Hypertension Advisory and Mentoring Program (CHAMP) 2015-2017

committee member.

This program fosters an environment of training and networking activities in order to provide support in the form of mentor CHAMPions for future career choices in the scientific community. After I concludes my period of service, I continue to contribute as trainee poster judge and speaker for the "How to

do" session at every annual meeting.

Center of Research in Obesity and Cardiovascular Disease

2013-2018 COBRE group meetings

2019-Present **Department of Pharmacology and Nutritional Sciences**

Hypertension Interest Group coordinator

04-05/2021 **UKCOM Mentor Training**

The purpose of this training is to enhance the mentoring culture of the College of Medicine by providing tools to mentors that will assist them in facilitating a positive mentoring relationship with their mentees, regardless of the career stage of the mentee.

The curriculum composes eight, 90-minute, facilitated sessions along with accompanying readings. In-person sessions will primarily involve small group discussions of mentor – mentee situations.

04-05/2021 **University of South Florida-College of Business**

Diversity, Equity, and Inclusion in the Workplace certificate program 7-week course focused on discussion of strategies to help employees at all levels understand the business case for creating a more diverse work environment and to educate participants on the essential tools that can be useful as we all work to create a sustainable business model that embraces equity and inclusion.

XI. SPEAKING ENGAGEMENTS

Local			
	Medical College of Georgia		
03/2013	Augusta, GA #1 Oral Biology Departmental Seminar: "Early Life Stress Sensitizes the Sympathetic System in Adult Rats"		
08/2013	#2 Departmental Seminar Series. Department of Physiology: "Early life stress induces renal dysfunction in adult male but not female rats"		
	University of Kentucky		
12/2013	Markey Cancer Center Mini-Symposium: "A model of adverse childhood experiences to study the origins of chronic adult disease"		
10/2017	Biology, College of Arts and Sciences: "The stressed kidney: origins of adult hypertension"		
11/2017	Division of Nephrology, Bone and Mineral Metabolism: "Effect of stress on nephron endowment". Research Seminars to foster collaborations.		
01/2018	Department of Physiology: "Disturbances of the postnatal Stress Hyporesponsive Period (HRSP) heightens cardiometabolic risk in rodents"		
05/2018	Obesity Research Day. Selected for Data Blitz: "Female mice exposed to early life stress are primed to develop obesity and metabolic derangements"		
10/2018	Agricultural and Medical Biotechnology, ABT201: "Introduction to the variety of research programs on campus".		
11/2019	Institutional Staff Office Faculty and Professional Development Program Tenure and Promotion Workshops Speaker		

04/2021 Agricultural and Medical Biotechnology, ABT201: "Introduction to the

variety of research programs on campus".

Media highlights

10/2019

Pulso Latino Radio Station interview (Spanish): "Ciencia con nosotros"

https://soundcloud.com/radiolex/cienciaconnosotros 103019 pod?in=radiole

x/sets/ciencia-con-nosotros

Healthy Hearts Symposium

https://uknow.uky.edu/research/healthy-hearts-women-spotlights-cardiovas...

Loria Lab

https://www.youtube.com/watch?v=9Fjgz--SQtw&feature=youtu.be

State/Regional

08/2015 The Research Institute at Nationwide Children's Hospital

Columbus, OH

Department of Pediatrics "Effects of early life stress on the cardiometabolic

phenotype"

03/2018 **Ohio University**

Athens, OH

"Sex-specific effect of early life stress on body composition"

National/International

University of Buenos Aires

Buenos Aires, Argentina

07/2010 #1 Department of Physiology, School of Pharmacy and Biochemistry "Early

life stress induces changes in the RAS and ET-1 system"

06/2012 #2 Department of Physiology, School of Pharmacy and Biochemistry,

"Cardiovascular and renal programming in response to chronic stress during

the postnatal period".

07/2013 FASEB Summer School

Saxton Rivers, VT

Renal Hemodynamics School. "Effects of early life stress on the renal

phenotype: potential role of the epigenome"

11/2015 APS Conference Physiology and Gender

Annapolis, MD

"Sex Differences in Cardiovascular and Metabolic Risks Due to Early Life

Stress

9/2015 XXXV Workshop on Stress, Behavior and the Heart

Erice, Italy

"Early life adversity as an independent risk factor of cardiovascular and metabolic disease in rodents". Organizers: Murray Esler, Viola Vaccarino,

Nicola Montano and Andrea Sgoifo.

10/2015	University of Murcia Murcia, Spain Department of Physiology "Role of the sympathetic system in the exaggerated cardiovascular and metabolic sensitivity due to early life stress"
08/2016	Childhood Obesity, Conference Series Atlanta, GA "Early life stress-programmed risk for obesity-induced hypertension"
09/2017	Henry Ford Hospital, Division of Hypertension Detroit, MI "The stressed kidney: Origins of adult Hypertension"
10/2017	Tulane University, Department of Pharmacology New Orleans, LA "Long-term effects of psychosocial stress during early life: evidence for greater metabolic risk in females"
04/2018	New Investigator Award Lecture-APS San Diego, CA "Early life stress-programmed adipose tissue targets with impact on cardiometabolic risk"
09/2018	Council of Hypertension, AHA, Training Program Panel of experts "How to map your scientific independence during your postdoctoral training".
01/2019	Department of Physiology Development & Neuroscience University of Cambridge, United Kingdom "Modeling Obesity Risk by Early Life Stress: sex-specific mechanisms in rodents"
02/2019	Department of Cell Biology and Physiology, University of Mexico "Modeling Obesity Risk by Early Life Stress: sex-specific mechanisms in rodents".
10/2020	Department of Cell & Molecular Biology, University of Mississippi "Sex-specific effects of perinatal stress on the obesogenic response"
10/2020	Brazilian Society of Physiology, Annual Meeting, Virtual "Adipose-derived Afferent signals with impact on Blood pressure"
04/2021	American Physiological Society, Virtual EB Annual meeting Chair session "Impact of a complicated pregnancy on the offspring cardiovascular health"
10/2021	American Physiological Society, New Trends in Sex and Gender Medicine conference Chair abstract session I

02/2022 Gordon Research Conference on Angiotensin

Discussion Leader of session on "Sex Differences in the Regulation of the RAAS and Changes during Lifespan

06/2022 APS/ASN Summer Research Conference: Control of Kidney Function in

Health and Disease: New frontiers

"Fat-derived sensory signals require intact renal nerves to display obesityhypertension in a model of early life stress"

National/International Podium Presentations

04/2014 Loria AS, Fox B, Pollock D, and Pollock JS. High fat feeding induces exaggerated endothelial dysfunction and insulin resistance in rats exposed to maternal separation FASEB J 28:1085.7

O9/2015 Chen, KC and **Loria AS.** Maternal separation, a model of early life stress in rats, dysregulates the renal vasculature gene expression patterns during late nephrogenic period and adult life. High Blood Pressure Council (AHA), Washington DC.

06/2017 Kuey, KC, Chade AR, **Loria AS**. Early life stress during the late nephrogenic period induces abnormal renal microvascular development, FASEB Summer School, Renal Hemodynamics School Big Sky Resort, MT.

04/2017 **Loria AS**. High fat diet exacerbates adipose tissue-derived adipokines and hypertension in female C57BL/6 mice exposed to early life stress. Experimental Biology; Chicago, April 24.

09/2017 Mitchell K, Cohn DM, **Loria AS**. Evidence of Angiotensin II-dependent hypertension in female mice exposed to postnatal neglect and weaned on a high fat diet. High Blood Pressure Council (AHA), San Francisco CA.

09/2017 **Loria AS**. "Early life stress as a cardiometabolic risk factor: evidence of sexspecific mechanisms in rodents" American DOHaD Society, Detroit, MI.

04/2019 Leachman JR, Jones T, Dalmasso C, Seward T, Taylor BK, Loria AS. Early life stress-induced increases in adiposity in mice are prevented by the adipose tissue-specific abrogation of neuropeptide Y receptor 2. Experimental Biology; Orlando, Podium Presentation, APS highlights.

National/International Podium Presentations by Trainees

Margaret Murphy, Lauren Schmuckie, David Powell, Francesc Marti, **Loria AS.** Early Life Stress increases susceptibility to develop obesity and metabolic syndrome in a sex-specific manner. High Blood Pressure Council (AHA), Washington DC.

04/2016 Murphy, M. Cohn, D. Wills, C. Gilbert, L. Powell, D. Loria, AS. Increased

hepatic lipogenic gene expression	correlates w	ith enhanced	central and	
ectopic adiposity in female C57BL/6	6 mice expos	sed to materna	1 separation.	
Experimental Biology; San Diego, April 2.				

09/2016 Murphy MO, Cohn DM, Loria AS. Postnatal treatment with Metyrapone in

female rats attenuates the effects of early life stress on diet-induced obesity.

High Blood Pressure Council (AHA), Orlando FL.

04/2019 Dalmasso C, Leachman JR, Mounce S, Xu X, Loria AS. Capsaicin-induced

stimulation of sensory neurons in adipose tissue promotes increases in blood pressure in mice exposed to early life stress. Experimental Biology, Orlando,

04/2019 Leachman JR, Ritter C, Xu X, Rea M, Dalmasso C, Fondufe-Mittendorf Y,

Loria AS. Mice exposed to early life stress display sex and adipose tissue-specific upregulation of leptin gene expression. Experimental Biology;

XII. RESEARCH & INTELLECTUAL CONTRIBUTIONS

A. PUBLICATIONS

Book Chapter

Loria AS, Goulopoulou S, Bourque SL, Davidge ST. Sex Differences in Cardiovascular Physiology and Pathophysiology, Chapter VII: Sex Differences in developmental origins of cardiovascular dysfunction. Elsevier, in press. Editor: Barbara Alexander and Babette Lamarca.

XII. RESEARCH & INTELLECTUAL CONTRIBUTIONS ~ continued

Peer-Reviewed Original Research in Professional, Scientific or Educational Journals

- 1. Costa M, Loria AS, Marchetti M, Balaszczuk AM, Arranz CT. Effects of dopamine and nitric oxide on arterial pressure and renal function in volume expansion. Clin Exp Pharmacol Physiol. Sep;29(9):772-776, 2002.
- 2. MA Costa, **Loria AS**, R Elesgaray, AM Balaszczuk, CT Arranz. Role of nitric oxide pathway in hypotension and renal effects of furosemide during extracellular volume expansion. J Hypertens. Aug;22(8):1561-9, 2004.
- 3. Costa MA, Elesgaray R, Loria AS, Balaszczuk AM, Arranz CT. Atrial natriuretic peptide influence on nitric oxide system in kidney and heart. Regul Pept. 406(2):151-157, 2004.
- 4. MA Costa, R Elesgaray, **Loria AS**, AM Balaszczuk, CT Arranz. Vascular and renal effects of dopamine during extracellular volume expansion: Role of nitric oxide pathway. Life Sci. Feb 28;78(14):1543-9, 2006.

- 5. **Loria AS**, Reverte V, Salazar F, Sáez F, Llinás MT, Salazar FJ. Changes in renal hemodynamics and excretory function induced by a reduction of ANG II effects during renal development. Am J Physiol. Integr and Regul Integr Comp Physiol. Aug;293(2):R695-700, 2007.
- 6. **Loria AS**, Reverte V, Salazar F, Sáez F, Llinás MT, Salazar FJ. Sex and age differences of renal function in rats with reduced ANG II activity during the nephrogenic period. Am JPhysiol. Renal Physiol. Aug;293(2):F506-10, 2007.
- 7. Saez F, Castells MT, Zuasti A, Salazar F, Reverte V, Loria AS, Salazar FJ. Sex differences in the renal structural changes elicited by Ang II blockade during neprhogenic period. Hypertension. Jun;49(6):1429-35, 2007.
- 8. Salazar F, Reverte V, Sáez F, **Loria AS**, Llinás MT, Salazar FJ. Age- and sodium-sensitive hypertension and sex-dependent renal changes in rats with a reduced nephron number. Hypertension. Apr;51(4):1184-9, 2007.
- 9. D'Angelo G, Loria AS, Pollock DM, Pollock JS. Endothelin activation of reactive oxygen species mediates stress-induced pressor response in Dahl salt-sensitive prehypertensive rats. Hypertension. 2010 Aug;56(2):282-9, 2010.
- 10. **Loria AS,** D'Angelo G, Pollock DM, Pollock JS. Early life stress down-regulates endothelin receptor expression and enhances acute stress-mediated blood pressure responses in adult rats. Am J Physiol Regul Integr Comp Physiol. Jul;299(1):R185-91, 2010.
- 11. **Loria AS,** Pollock DM, Pollock JS. Early life stress sensitizes rats to angiotensin II-induced hypertension and vascular inflammation in adult life. Hypertension. Feb;55(2):494-9, 2010.
- 12. **Loria AS**, Kang KT, Pollock DM, Pollock JS. Early life stress enhances angiotensin II-mediated vasoconstriction by reduced endothelial nitric oxide buffering capacity. Hypertension. 58(4):619-26., 2011.
- 13. **Loria AS,** Yamamoto T, Pollock DM, Pollock JS. "Early life stress induces renal dysfunction in adult male but not female rats". Am J. Physiol Regul Integr Comp Physiol, 15;304(2):R121, 2012.
- 14. **Loria AS**, Brands MW, Pollock DM, Pollock JS. "Early life stress sensitizes the renal and systemic sympathetic system in rats". Am J. Physiol Renal. Aug 1;305(3):F390-5, 2013.
- 15. **Loria AS**, Ho DH, Pollock JS. A mechanistic look at the effects of adversity early in life on cardiovascular disease risk during adulthood. Acta Phisiologica. 210, 277–287, 2014.
- 16. Reverte V, Tapia A, Loria AS, Salazar F, Llinas MT, Salazar FJ. COX-2 inhibition during nephrogenic period induces an angiotensin ii hypertension and sex-dependent changes in renal function during ageing. Am J. Physiol Renal 1;306 (5):F534-41, 2014.

Publications after joining UK:

- 17. **Loria AS,** Brinson KN, Fox BM, Sullivan JC. Sex-specific alterations NOS regulation of vascular function in a rta and mesenteric arteries from spontaneously hypertensive rats compared to Wistar Kyoto rats. Physiological Reports, 28;2(8). pii: e12125, 2014.
- 18. **Loria AS**, Pollock D.M., Pollock J.S. Angiotensin II (AngII) is required to induce exaggerated salt-sensitivity in Dahl rats exposed to maternal separation. Physiol Rep. 2015 May;3(5), 2015.
- 19. **Loria AS.** Can We Fight Chronic Kidney Disease By Targeting Endothelial HB-EGF? Am J. Physiol Renal. 1;311(2):F406-8, 2016.
- 20. Murphy MO, Cohn DM, **Loria AS**. Developmental origins of cardiovascular disease: impact of early life stress in humans and rodents. Neurosciences and Behavioral Reviews. S0149-7634(16)30012-4, 2016.
- 21. Murphy MO, Herald JB, Will CT, Unfried GS, Cohn DM, Loria AS. Postnatal Treatment with Metyrapone Attenuates the Effects of Diet-Induced Obesity in Female Rats Exposed to Early Life Stress. Am J. Physiol Endocrinology and Metabolism, 312(2):E98-E108, 2017. PMC5336565
- We found that maternally separated adult female, but not male rats, displayed greater body weight gain, fat pad weights and glucose intolerance compared to control rats. Treatment with a corticosterone synthase inhibitor (Metyrapone) during postnatal life significantly attenuated the early onset of metabolic disease, showing that exposure to stress hormones during early life could be a key event that raises the risk for diet-induced obesity and metabolic disease in a sexspecific manner.
- 22. **Loria AS** and Osborn JL. Maternal Separation Diminishes Alpha-Adrenergic Receptors Density and Function in Renal Vasculature from male Wistar Kyoto rats. Am J. Physiol Renal, 313, 1: F47-F54, 2017. PMC5538843
- After discovering that maternal separation sensitizes the sympathetic nervous system and increases the sympathetic outflow to the kidney, we determined that an attenuated renovascular response to adrenergic stimulation correlates with reduced alpha-adrenergic receptor in the renal vasculature in maternally separated rats. These studies are the first to document the adverse impact of early life stress (ELS) in sympatho-mediated responses in the kidney.
- 23. Murphy MO, **Loria AS**. Sex-specific effects of stress on metabolic and cardiovascular disease: are women at higher risk? Am J Physiol Regul Integr Comp Physiol, 313(1):R1-R9, 2017.
- 24. De Miguel CM, Obi IE, Ho D, **Loria AS**, Pollock JS. Early life stress induces pro-inflammatory mediators in kidneys of adult male rats. Am J Physiol Renal Physiol,1;314(3):F343-F355, 2017. PMCID: PMC5899229. **Selected for APS***select*.
- The APSselect website states that it features "outstanding scientific discoveries" by the American Physiological Society.
- 25. Fox B, Becker B, **Loria AS**, Hyndman K, Jin C, Clark H, Johns R, Yanagisawa M, Pollock D, and Pollock J. Acute Pressor Response to Psychosocial Stress is Dependent on Endothelium-Derived Endothelin-1. J of the Am Heart Assoc, 16;7(4). pii: e007863 PMC5850198, 2017.
- 26. Murphy MO, Herald JB, Leachman J, Villasante Tezanos A, Cohn DM, **Loria AS**. A Model of Neglect During Postnatal Life Heightens Obesity-Induced Hypertension and is Linked to a Greater Metabolic Compromise in Female Mice. Int J Obes, 42(7):1354-1365, 2018. PMC6054818

- Although we found that both male and female mice fed a high fat diet develop obesity-induced hypertension, we showed that only females mice exposed to early life stress display exacerbated hepatic pro-adipogenic gene expression, insulin resistance and fat expansion.
- 27. **Loria AS**, Spradley FT, Obi IE, Becker BK, De Miguel C, Speed JS, Pollock DM and Pollock JS. Maternal Separation Enhances Anti-contractile Perivascular Adipose Tissue Function in Male Rats on a High Fat Diet. AJP Regu, 315(6):R1085-R1095, 2018. PMC6425636
- This study demonstrates that maternal separation enhances the ability of perivascular adipose tissue to blunt the heightened AngII-induced vasoconstriction. This protective effect may be mediated via the upregulation of vasoprotective factors within the adipo-vascular axis, including Adiponectin and Angiotensin 1-7.
- 28. Gatineau E, Cohn D, Poglitsch M, Loria AS, Gong M, Yiannikouris FY. Losartan prevents the elevation of blood pressure in adipose-PRR deficient female mice while elevated circulating sPRR activates the renin angiotensin system". AJP Heart, 316(3):H506-H515, 2019. PMC6734055
- This is a collaborative study with Dr. Yiannikouris laboratory. I provided feedback in data interpretation and manuscript editions.
- 29. Liu M, Verma N, Ly H, **Loria AS**, Campbell K, Kincer J, Bush H, Kern P, Jose P, Taegtmeyer H, Bers D, Despa S, Goldstein L, Murray A, Despa F. Prediabetic Hypersecretion of Amylin Alters Oxygen Sensing and Accelerates Aging. Kidney International, 97(1):143-155, 2020.
- In this collaboration with Dr. Despa, I contributed to determine the renal function and hemodynamics in HIP and wild type rats.
- 30. Dalmasso C, Leachman JR, Yiannikouris FB, Giani J, Ensor M, Cassis L, **Loria AS**. Female Mice Exposed to Postnatal Neglect Stimulates Obesity-induced Hypertension Display via Increases in Adipose Tissue-derived Angiotensin II Synthesis. Journal of the AHA, 8(23):e012309, 2020. **PMC6912962**
- We showed that obesity-induced increases in blood pressure in female mice exposed to postnatal neglect depend upon elevated circulating AngII and enhanced AngII sensitivity. Moreover, we identified adipose tissue-derived AngII production contributing to exacerbate obesity-induced hypertension mice via a mechanism independent of sympatho-activation.
- 32. Dalmasso C, Leachman JR, Osborn JL, **Loria AS**. Sensory Signals Mediating High Blood Pressure via Sympathetic Activation: Role of Adipose Afferent Reflex. Am J Physiol Regul Integr Comp Physiol 318: R379–R389, 2020. **PMC7052594**
- 33. Mahanes TM, Ouyang A, Seta F, Yiannikouris FB, Fleenor BS, **Loria AS**. Maternal Separation-induced Increases in Vascular Stiffness are Independent of Circulating Angiotensinogen Levels. J Appl Physiol. 1;129(1):58-65, 2020. PMC7469236 PMC7469236
- 34. Dalmasso C, Chade AR, Bix GJ, Mendez M, Chen KC, **Loria AS**. Intrarenal Renin Angiotensin System Imbalance During Postnatal life is Associated with Increased Microvascular Density in The Mature Kidney. Frontiers in Physiology. 2020, doi: 10.3389/fphys.2020.01046 **PMC7491414**
- 35. Leachman JR, Rea M, Cohn DM, Xu X, Dalmasso C, Fondufe-Mittendorf Y and Loria AS. Exacerbated obesogenic response in female mice exposed to early life stress is linked to fat depot-

- specific upregulation of the leptin protein expression. AJP endocrinology and metabolism. 2020, doi: 10.1152/ajpendo.00243.2020 **PMC7790118**
- 36. Dalmasso C, Leachman JR, Ahmed N, Ghuneim S, Schneider E, Thibault O, Osborn JL, **Loria AS**. Epididymal fat-derived sympathoexcitatory signals exacerbate neurogenic hypertension in obese mice exposed to early life stress. Hypertension, 2021 (under revision)
- 37. Early life stress enhances the obesogenic response in female mice via the Mineralocorticoid Receptor (MR) signaling. Leachman et al, under preparation

Local/State/Regional Meetings

- 1. 10/2013. **Loria, AS**, Pollock JS. Early life stress exacerbates the adrenergic receptor subtypes mRNA expression in the kidney. Gill Heart Institute Cardiovascular Research Day. University of Kentucky
- 2. 05/2014. **Loria AS**, Pollock DM, Pollock JS. Maternal Separation induces vascular dysfunction in male rats fed a high fat diet. Barnstable Brown Obesity Day. University of Kentucky
- 3. 10/2014. Murphy MO, Mahanes TM, Zhang M, Loria, AS. New model in C57 black mice that mimics the synergy between chronic behavioral stress and high fat (HF) feeding during early life. Maternal Separation Gill Heart Institute Cardiovascular Research Day. University of Kentucky
- 4. 10/2014 Garner, T. B., Berrones, A., Ouyang, A., Murphy, M., **Loria, AS**., Fleenor, B. S. Diet Induced Obesity Increases Aortic Stiffness by Altering Smooth Muscle and endothelial Cell Function and Not Extracellular Matrix Remodeling. Gill Heart Institute Cardiovascular Research Day. University of Kentucky
- 5. 05/2015. Murphy, M., Schmuckie, L., Powell, D., Marti, F., **Loria, AS**. Developmental programming of metabolic disease in female mice exposed to early life stress. Barnstable Brown Obesity Day. University of Kentucky
- 6. 05/2015. Murphy MO, Spradley FT, Fleenor BS, Pollock DM, Pollock JS, and **Loria AS**. Early life Stress-induced Cardiometabolic alterations in Response to High Fat Diet Feeding in Rats. Barnstable Brown Obesity Day. University of Kentucky
- 7. 10/2016. Murphy, M. Cohn, D. Wills, C. Gilbert, L. Powell, D. Marti, F. **Loria, AS.** Early life stress increases the susceptibility to develop obesity and metabolic syndrome in a sex-specific manner. Gill Heart Institute Cardiovascular Research Day. University of Kentucky
- 8. 05/2017 **Loria AS**. Evidence for the adipose afferent reflex-mediated sympathetic activation during obesity-induced hypertension in mice exposed to early life stress. Barnstable Brown Obesity Day. University of Kentucky.
- 9. 10/2017 Herald JB, Leachman JR, **Loria AS.** Evidence of Angiotensin II-dependent, Obesity-induced Hypertension in Female Mice Exposed to Postnatal Neglect. Cardiovascular Research Day. University of Kentucky.

- 10. 3/2018 Leachman JR, Herald JB, **Loria AS.** Young adult mice exposed to postnatal neglect display downregulation of transcription factors in visceral white adipose tissue. CCTS Spring Conference. University of Kentucky.
- 11. 5/2018 Herald JB, Leachman JR, Loria AS. "Early life stress reduces in vivo lipolysis efficiency in female mice fed a high fat diet." Barnstable Brown Obesity Day. University of Kentucky.
- 12. 5/2018 Leachman JR, Herald JB, **Loria AS.** Young adult mice exposed to postnatal neglect display downregulation of transcription factors in visceral white adipose tissue. Barnstable Brown Obesity Day. University of Kentucky.

National/International Meetings

- 1. 09/2005. R López, F Sáez, **Loria AS**, F Salazar, MT Llinas FJ Salazar. Role of COX-1 and COX-2 in the acute regulation of renal function during changes in angiotensin II levels when oxide nitric is reduced. XXXII Congress of the Spanish Society of Physiological Sciences. Journal of Physiology and Biochemistry. 61 (1), p291. Sevilla, Spain. Poster
- 2. 04/2005. **Loria AS**, F Salazar, JP Granger, FJ Salazar, MT Llinás. Enhanced renal COX-2 expression during pregnancy is not involved in the regulation of renal hemodynamics in midpregnant rats. XXXV International Congress of Physiological Sciences. San Diego. Poster
- 3. 06/2005. F Sáez, **Loria AS**, F Salazar, V Reverte, MT Castells, MT Llinás, A Zuasti, FJ Salazar. Perinatal COX-2 inhibition reduces rat nephron endowment. First International Congress of Histology and Tissue Engineering. Madrid, Spain. Poster
- 4. 09/2006. **Loria AS**, Reverte V, Salazar F, Saez F, Llinás MT, FJ Salazar. Gender differences in cortical and medullary function in adult rats with a reduction in Ang II during nephrogenic period. High Blood Pressure Council (AHA). Hypertension 48 (4) e29. **Podium Presentation**
- 5. 04/2007. **Loria AS,** Reverte V, Saez F, Salazar F, Llinas MT, Salazar FJ. Gender differences in the altered renal excretory response to an acute volume expansion in rats with low glomerular number. Experimental Biology Annual Meeting. Washington DC. Poster
- 6. 04/2007. Reverte V, **Loria AS**, Saez F, Salazar F, Llinas MT, Salazar FJ. Altered renal hemodynamic and excretory response to amino acids when nephron number is diminished. Experimental Biology Annual Meeting. Washington DC. Poster
- 7. 11/2007. Salazar F, Reverte V, Sáez F, **Loria AS**, Llinás MT, Salazar FJ. Age-sodium sensitive hypertension in rats with a reduced nephron number. Inter-American Society of Hypertension XVII Scientific Sessions. South Beach, Florida. Poster
- 8. 03/2008. **Loria AS**, D'Angelo G, Pollock DM, Pollock JS. Air jet stress (AJS) induces ET-1 mediated reactive oxygen species (ROS) production that increases blood pressure in Dahl salt-sensitive (DS) rats Experimental Biology. San Diego. **Podium Presentation.**

- 9. 09/2008. Loria AS, Kang K, Pollock J. Maternal Separation Enhances Angiotensin II-induced Aortic Contraction Via Reduced NO Signaling. High Blood Pressure Council (AHA). Atlanta. Poster
- 10. 09/2008. Saez F, Reverte V, Llinas MT, Castells MT, **Loria AS**, Salazar FJ. Sex differences in the aging-dependent renal changes when COX-2 activity is reduced during renal development. High Blood Pressure Council (AHA). Atlanta, GA. Poster
- 11. 10/2008. **Loria AS**, Kang K, Pollock JS. Maternal separation enhances angiotensin II-induced aortic constriction in rats. Jackson Cardiovascular–Renal Meeting. Mississippi. Poster
- 12. 04/2009. **Loria AS**, Kang K, Pollock JS. Enhanced angiotensin II-induced aortic constriction in maternally separated rats is endothelium-dependent and ROS-independent. Experimental Biology. New Orleans. Poster
- 13. 11/2009. **Loria AS** and Pollock JS. Maternal separation sensitizes rats to AngII-induced hypertension and inflammation. ATVB. Washington D.C. Poster
- 14. 09/2009. **Loria AS**, Pollock D, Pollock J. Early life stress enhances AngII-dependent responses through decreased AT2 receptor expression and function. High Blood Pressure Council (AHA). Chicago. Poster
- 15. 09/2009. Spradley F, **Loria AS**, Pollock J. Synergic effects of early life stress and high fat diet on aortic reactivity in rats. High Blood Pressure Council (AHA). Chicago. Poster
- 16. 03/2010. **Loria AS**, Lee J, Martin B, Pollock DM, Pollock JS. Early life stress reduces renal function in male rats. FASEB J. 24:1041.4. Poster
- 17. 09/2010. **Loria AS**, Brands MW, Pollock DM, Pollock JS. Early life stress lowers GFR and enhances high salt-induced hyperfiltration. High Blood Pressure Council (AHA). Washington D.C. Poster
- 18. 10/2010. **Loria AS**, Spradley, FT, David M. Pollock, Jennifer S. Pollock. Early life stress enhances blood pressure sensitivity to a high fat diet in male WKY rats. Obesity Summit, Jackson. MS. Poster
- 19. 04/2011. **Loria AS**, Frank T. Spradley, David M. Pollock, Jennifer S. Pollock. Maternal separation followed by a high fat diet since weaning increases blood pressure in male WKY rats. Experimental Biology. Washington D.C. Poster
- 20. 04/2011. **Loria AS**, David M. Pollock, Jennifer S. Pollock. Maternal separation enhances Ang II-induced constriction by reducing NO buffering. Experimental Biology. Washington. Poster
- 21. 09/2011. **Loria AS**, David M. Pollock, Jennifer S. Pollock. Maternal separation enhances angiotensin II-induced hypertension by reducing nitric oxide synthase (NOS) buffering capacity in vivo e in vitro. High Blood Pressure Council (AHA), Orlando. Poster
- 22. 09/2011. **Loria AS,** Spradley, FT, David M. Pollock, Jennifer S. Pollock. Early life stress increases blood pressure and exacerbates the metabolic hormonal profile in weanlings fed a high fat diet. High Blood Pressure Council (AHA), Orlando. Poster

- 23. 10/2011. **Loria AS,** Pollock D.M., Pollock, J.S. Exaggerated angiotensin II-induced hypertension in male rats exposed to early life stress depends on testosterone levels. APS Gender Disparities Meeting, Jackson. Poster
- 24. 04/2012. **Loria AS**, Pollock D.M., Pollock, J.S. Early life stress exaggerates renal sympathetic outflow in adult rats. Experimental Biology, San Diego. Poster
- 25. 04/2012. **Loria AS,** Tyler Cunningham, Pollock, J.S. Early life stress-induced exaggerated AngII aortic vasoconstriction is transmitted to the F1 generation. Experimental Biology, San Diego. Poster
- 26. 04/2012. Ho D.H., De Miguel C., Gardner B., Loria AS. and Pollock J.S. Early life stress enhances circulating and renal T cell activation. Experimental Biology, San Diego. Poster
- 27. 09/2012. **Loria AS.**, Brands M.W., Pollock D.M., Pollock J.S. Renal Denervation Reveals Renal Sympathetic Activation in Adult Rats Exposed to Early Life Stress. High Blood Pressure Council (AHA), Washington DC. Poster
- 28. 11/2012. **Loria AS.**, Brands M.W., Pollock D.M., Pollock J.S. Evidence of Renal Sympathetic Activation in Adult Rats Exposed to Early Life Stress. DOHaD Satellite Meeting. Rotterdam, Netherlands. Poster
- 29. 04/2013. **Loria AS.**, Hokanson M, Pollock DM, Pollock JS. Maternal separation increases acute and chronic norepinephrine sensitivity revealing sympatho-activation. Experimental Biology, Boston, MA. Poster
- 30. 04/2013. Loria AS., Pollock DM, Pollock JS. Maternal separation enhances angiotensin II-induced hypertension in Dahl rats fed a high salt diet. Experimental Biology, Boston, MA. Poster
- 31. 04/2013. Ho DH, **Loria AS.** and Pollock JS. Early life stress induces altered expression of epigenetic chromatin modification enzymes in aorta and renal vessels. Experimental Biology, Boston, MA. Poster
- 32. 09/2013. **Loria AS.** and Pollock JS. Early life stress exacerbates the adrenergic receptor subtypes mRNA expression in the kidney. High Blood Pressure Council (AHA), New Orleans. Poster
- 33. 11/2013. **Loria AS.** Early life stress upregulates angiogenic factors and increases microvascular density in the kidney. DOHaD Meeting. Singapore. Poster
- 34. 04/2014. Obi I, Ho D, **Loria AS**, and Jennifer Pollock. Early life stress enhances renal expression of T-cell and B-cell activation factors. FASEB J Poster
- 35. 04/2014. **Loria AS**., Johns R, Hyndman KH, Yanagisawa M, and Pollock JS. Acute behavioral stress-induced circulating endothelin-1 is derived from the endothelium. FASEB J 28:857.9 Poster
- 36. 04/2014. Fox B, Loria A.S., and Pollock JS. Resistance arteries from normally-reared and maternal separation rats display similar vascular reactivity (1087.3) FASEB J 28:1087.3 Poster

- 37. 09/2014. **Loria AS.** Maternal separation (MSep) alters baroreflex function and renal blood flow responsiveness. High Blood Pressure Council (AHA), San Francisco. Poster
- 38. 11/2014. Srodulski S, **Loria AS.**, Hammock B, Despa S and Despa F. Hyperamylinemia, a potential therapeutic target in diabetic cardiorenal syndrome. Scientific Sessions AHA, Chicago. Poster
- 39. 04/2015. Margaret O Murphy, Logan J Evans, Timothy M Mahanes and **Loria AS.** Impaired baroreflex response correlates with reduced conduit vessel contractility in female maternally separated rats and reveals α1D adrenergic receptor dysfunction. Experimental Biology. Poster
- 40. 04/2015. Logan Evans, Christopher H Castillo, Timothy M Mahanes, Jeffrey L Osborn and **Loria AS.** Chronic early life stress induces alpha 1-adrenergic receptor (α1-AR) desensitization in the renal vasculature. Experimental Biology. Poster
- 41. 04/2015. Ijeoma E. Obi, **Loria AS**, Dao H. Ho, Carmen De Miguel, and Jennifer S. Pollock. Early life stress (ELS) induces renal cortical increased pro-inflammatory genes and lack of anti-inflammatory genes in response to chronic angiotensin II (AngII) infusion in adult rats. Experimental Biology. Poster
- 42. 09/2015. Carmen De Miguel, Dao H. Ho, **Loria AS**, Ijeoma Obi and Jennifer S. Pollock. Early life stress induces renal pro-inflammatory immune responses. High Blood Pressure Council (AHA), Washington DC, **Podium Presentation.**
- 43. 09/2017. Gilbert LR, Combs EM, Schweickart TH, **Loria AS**. "High Fat Diet Abolishes the Development of Endothelial Dysfunction in Female Rats Exposed to Maternal Separation" American DOHaD Society, Detroit, MI, Poster.
- 44. 02/2018. Mahanes TM, Leachman J, Mendez M, Loria AS, "Postnatal Exposure to Maternal Separation Disturbs the Intrarenal Renin Angiotensin System During in Male Offspring" Gordon Research Conference, Valdosta, CA, Poster
- 45. 04/18 Herald JB, Leachman JR, **Loria AS.** "Early life stress reduces in vivo lipolysis efficiency in female mice fed a high fat diet." Experimental Biology; San Diego, April 24, Poster
- 46. 04/18 Leachman JR, Herald JB, **Loria AS.** Young adult mice exposed to postnatal neglect display downregulation of transcription factors in visceral white adipose tissue. Experimental Biology; San Diego, April 24, Poster
- 47. 09/18 Leachman JR, Dalmasso C, Ritter C, Xu X, Backus J, Cassis L, Loria AS. Early life stress-induced increases in urinary aldosterone precedes renal dysfunction and hypertension in male mice fed a high fat diet. High Blood Pressure Council (AHA), Chicago, IL. Poster and trainee competition.
- 48. 09/19 Dalmasso C, Mounce S, Leachman JR, Xu X, **Loria AS**. Acute stimulation of neuro-adipose connections increase blood pressure responses in male mice exposed to early life stress High Blood Pressure Council (AHA), New Orleans, LA.
- 49. 09/19 Leachman JR, Xu X, Dalmasso C, Taylor BK, Loria AS. Sex-specific effects of neuropeptide Y2 receptor (Y2) deletion in adipose tissue from mice exposed to early life stress. High Blood Pressure Council (AHA), New Orleans, LA.

- 50. 04/2020 Leachman JR, Gatineau E, Agarwal M, Dalmasso C, Xu X, Nikolajczyk B, Yiannikouris FB, **Loria AS.** Early life stress increases early markers of adipocyte differentiation in stromal vascular fraction from female mice fed a high fat diet. Experimental Biology 2020, San Diego, CA, **Podium Presentation.**
- 51. 04/2020 DeJesus SL, Leachman JR, Lyle J, Xu X, Dalmasso C, **Loria AS.** Neuropeptide Y (NPY) receptor 2 deletion in adipocytes blunts fat-derived aldosterone production in female mice exposed to chronic stress. Experimental Biology 2020, San Diego, CA, Poster.
- 52. 04/2020 Dalmasso C, Loria AS. Contribution of Fat-derived Sensory Signals to Sympathetic Activation During Obesity-hypertension. Experimental Biology 2020, San Diego, CA, Podium Presentation.
- 53. Dalmasso C, Ahmed NH, Leachman JR, **Loria AS.** 04/2020 Adipose Afferent Reflex Stimulation Increases The Activation Of The Organum Vasculosum Of The Lamina Terminalis (OVLT) In Obese Male Mice Exposed To Early Life Stress. Experimental Biology 2020, San Diego, CA, **Podium Presentation.**
- 54. Selective Afferent Denervation in Epididymal White Adipose Tissue Reduces Blood Pressure in Obese Male Mice Exposed to Early Life Stress. Carolina Dalmasso, Jacqueline R. Leachman, Nermin H. Ahmed, Sundus Ghuneim, and Analia S. Loria. Department of Pharmacology and Nutritional Sciences. University of Kentucky. Experimental Biology, April 2021. **Oral Presentation.**
- 55. Renal Nerves Mediate the Exacerbated Blood Pressure Response to Fat Sensory Neurons Stimulation in Obese Male Mice Exposed to Early Life Stress. Carolina, Dalmasso1, Jacqueline R. Leachman1, Nermin H. Ahmed1, Sundus Ghuneim1, Jeffrey O. Osborn2, and Analia S. Loria. 1. Department of Pharmacology and Nutritional, Sciences. 2. Department of Biology. University of Kentucky. Experimental Biology, April 2021. **Poster Presentation.**
- 56. Lean Mice Show Sex-Specific Effects of Early Life Stress on Water and Electrolyte Homeostasis and Renal Function. Sundus Ghuneim, Jacqueline Leachman, Carolina Dalmasso, Nermin Ahmed, Analia S. Loria. Experimental Biology, April 2021. **Oral Presentation.**
- 57. Perivascular Adipose Tissue Media Explant Impairs the ex-vivo Endothelial Function, in Obese Mice Exposed to Early Life Stress via the Mineralocorticoid Receptor, signaling. Nermin Ahmed, Jacqueline Leachman, Carolina Dalmasso, Analia S. Loria. Experimental Biology, April 2021. **Oral Presentation.**

C. SPONSORED RESEARCH PROJECTS, GRANT & CONTRACT ACTIVITIES

Active

Project Title: Effect of early life stress on obesity-induced hypertension in mice

Project Number: NIH R01HL135158 **Principal Investigator(s):** Analia S Loria, PhD

Role in Project: PΙ 30% **Effort:**

Institution/University: University of Kentucky

Source of Funding: NHLBI

12/01/17-11/30/2022 **Duration of Project:**

Total Award: \$1,908,297

Project Title: Effect of early life stress on obesity-induced hypertension in mice

Project Number: NIH R01HL135158-Diversity Supplement

Principal Investigator(s): Jacqueline Leachman (Analia S Loria Sponsor/PI)

Role in Project: Graduate Student

25% **Effort:**

Institution/University: University of Kentucky

Source of Funding: NHLBI

Duration of Project: 09/01/18-11/30/2022

Total Award: \$205,849

Project Title: Nerve recording in adipose tissue

Project Number: APS-RCEA **Principal Investigator(s):** Analia Loria, PhD

Role in Project: PΙ 0.5% **Effort:**

Institution/University: University of Kentucky

Source of Funding: NHLBI

Duration of Project: 08/20/19-10/31/2021

Total Award: \$13,400

Project Title: The role of sPRR in hypertension associated with obesity

Project Number: NIH R01HL142969

Principal Investigator(s): Frederique Yiannikouris, PhD

Role in Project: Co-Investigator

5% Effort:

Institution/University: University of Kentucky

Source of Funding: NHLBI

Duration of Project: 07/01/18-06/30/2022

Total Award: \$1,408,297 **Project Title:** A novel mechanism by which smooth muscle BMAL1 regulates IL-6

and sexual dimorphism of AAA

Project Number:Principal Investigator(s):
Role in Project:
NIH R01HL142973
Ming Gong, PhD
Collaborator

Effort: --

Institution/University: University of Kentucky

Source of Funding: NHLBI

Duration of Project: 08/20/18-07/31/2022

Total Award: \$2,078,400

Completed

Project Title: Effect of early life stress on adipose tissue

Project Number: NIH COBRE pilot project

Principal Investigator(s): Analia S Loria, PhD

Role in Project: PI **Effort:** 10%

Institution/University: University of Kentucky

Source of Funding: NHLBI

Duration of Project: 05/01/17-06/2018

Total Award: \$50,000

Project Title: Early life stress impairs chronic control of blood pressure

Project Number: NIH R00/HL111354 **Principal Investigator(s):** Analia S Loria, PhD

Role in Project: PI **Effort:** 75%

Institution/University: University of Kentucky

Source of Funding: NHLBI

Duration of Project: 09/23/13-07/2016

Total Award: \$747,000

D. NON-SPONSORED RESEARCH PROJECTS

None

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