



**Carmen De Miguel, PhD, MS, FAHA**  
Section of Cardio-Renal Physiology and Medicine  
Division of Nephrology  
Department of Medicine  
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## Citizenship

- Spanish – US permanent resident since 2012

## Education

- **Ph.D., Physiology**, Medical College of Wisconsin, Milwaukee, WI. Dissertation title: “*Renal infiltration of immune cells and salt-sensitive hypertension*”. Advisor: David L. Mattson. May 2010.
- **M.S., Cell and Molecular Biology**, St Cloud State University, MN. Thesis title: “*Motilin and secretion of gonadotropin-releasing hormone (GnHR) in hypothalamic explants from male and female Sprague-Dawley rats*”. Advisor: Oladele S. Gazal. All courses and research finished in 2005. Thesis defended: June 2010.
- **B.S., Biochemistry and Molecular Biology**, Universidad Autónoma de Madrid, Madrid, Spain. January 2002.

## Academic Appointments

- **Assistant Professor**, Section of Cardio-Renal Physiology and Medicine, Division of Nephrology, Department of Medicine, University of Alabama at Birmingham, Birmingham, AL. April 2019 - present.
- **Assistant Professor** (secondary appointment), Department of Cell, Developmental and Integrative Biology, University of Alabama at Birmingham, Birmingham, AL. August 2019 - present.
- **Associate Scientist**, Nephrology Research & Training Center, University of Alabama at Birmingham, Birmingham, AL. September 2017-present.
- **Associate Scientist**, Diabetes Research Center, School of Medicine, University of Alabama at Birmingham, Birmingham, AL. January 2022-present.
- **Member**, Comprehensive Diabetes Center, University of Alabama at Birmingham, Birmingham, AL. January 2022-present.
- **Associate Scientist**, Heersink School of Medicine Immunology Institute, University of Alabama at Birmingham, Birmingham, AL. December 2022-present.
- **Instructor of Medicine**, Section of Cardio-Renal Physiology and Medicine, Division of Nephrology, Department of Medicine, University of Alabama at Birmingham, Birmingham, AL. September 2017-April 2019.

## Training

- **Postdoctoral Scholar**, Section of Cardio-Renal Physiology and Medicine, Division of Nephrology, Department of Medicine, University of Alabama at Birmingham, Birmingham, AL. Mentor: Jennifer S. Pollock. January 2014- September 2017.

- **Postdoctoral Fellow**, Section of Experimental Medicine, Department of Medicine, Georgia Regents University, Augusta, GA. Mentor: Jennifer S. Pollock. August 2010 – December 2013.
  - Study of the involvement of the endothelin system and endoplasmic reticulum (ER) stress in the development of type 1 diabetes-induced renal inflammation.
  - Human studies elucidating the relationship between circulatory immune biomarkers in teens and the development of cardiovascular disease in adulthood.
  - Effects of early life stress on the development of hypertension and renal disease in adulthood.
  - Implications of the immune system in the development of high fat-sensitive hypertension.
- **Postdoctoral Fellow**, Medical College of Wisconsin, Milwaukee, WI. Mentor: David L. Mattson. May - July 2010.
  - Study of the relationship between renal immune cell infiltration and salt-sensitive hypertension: adoptive transfer of renal T-lymphocytes from high salt-fed Dahl SS rats to low salt-fed Dahl SS rats.
- **Renal and Cardiovascular Laboratory**, Medical College of Wisconsin, Milwaukee, WI. Mentor: David L. Mattson. August 2005 – May 2010.
  - **Ph.D. Research:** Study of the involvement of renal immune cell infiltration in salt-sensitive hypertension.
  - Study of renal immune infiltration in the development of salt-sensitive hypertension after renal ischemia-reperfusion injury in Sprague-Dawley rats.
  - Study of the effects of chronic infusion of L-Arginine in the development and reversal of Angiotensin II-induced hypertension in Sprague-Dawley rats.
- **Reproductive Endocrinology Laboratory**, St Cloud State University, St Cloud, MN. Mentor: Oladele S. Gazal. September 2003- July 2005.
  - **M.S. Research:** Study of the effects of gastrointestinal peptides (motilin and ghrelin) on the secretion of reproductive hormones such as GnRH, LH, GHRH and SST by the rat hypothalamus.
  - Study of the effects of GABA on the secretion of GnRH by hypothalamic explants from hysterectomized rats.
  - Effects of sewage steroids on GnRH secretion by rat hypothalamic explants.
  - Effects of motilin on GnRH secretion in hypothalamic explants from hysterectomized rats.

## Research Funding

### A. Current:

1. **NHLBI Mentored Career Development Award K01 (K01HL145324)**, 02/01/2019 – 01/31/2024. *“Role of endothelin in hypertension-mediated inflammation and end-organ damage”*. PI: Carmen De Miguel, PhD, MS.

### B. Completed:

1. **2022 Future Faculty of Cardiovascular Sciences (FOCUS) Program Small Research Project (SRP) (R25HL145817)**. *Endothelin-1 and Dendritic Cells in Salt-Sensitive Hypertension*. 02/01/2022 – 04/30/2023. PI: Carmen De Miguel, PhD, MS.
2. **2021 AQA Carolyn L. Kuckein Student Research Fellowship**. *Defining the role of endothelin-1 in hyperoxia-induced kidney damage*. 06/01/21 – 08/30/22. PI: Abigayle Kraus (M3 student); Mentor: Carmen De Miguel, PhD, MS.
3. **Vanderbilt O'Brien Kidney Center Pilot & Feasibility Grant**, 07/01/2021 – 06/30/22. *“Sex differences in diabetic kidney disease: the innate immune system and endothelin-1”*. PI: Carmen De Miguel, PhD, MS.
4. **UAB Diabetes Research Center Pilot & Feasibility Grant**, 09/01/2018 – 06/01/2020. *“Endothelin-1, dendritic cells and diabetic kidney damage”*. PI: Carmen De Miguel, PhD, MS.
5. **NHLBI Investigator Developing Independent Research Career Supplement (IRS) (P01 HL136267-01S1)**, 03/01/2018 - 03/31/2022. *“Integrating novel mechanisms controlling sodium*

- excretion and blood pressure*". PI: David Pollock, PhD; Supplement's PI: Carmen De Miguel, PhD, MS. Terminated after 9 months due to acceptance of K01 award.
6. **National Institute of Health Training grant (NIH T32 DK007545)**, 09/01/2014 - 08/31/2017. *"Interdisciplinary Training in Kidney-Related Research"*. PI: Anupam Agarwal, MD.
  7. **American Heart Association (AHA) Greater Southeast Affiliate Post-Doctoral Fellowship (#11POST7690066)**, 07/01/2011 – 06/30/2013. *"Role of Renal Medullary Endoplasmic Reticulum Stress in Endothelin-Mediated Diabetic Inflammation"*. PI: Carmen De Miguel, PhD, MS.

## Honors and Awards

1. Trainee choice invited speaker, Ribeirão Preto Medical School, University of São Paulo, Brazil. August 2023.
2. 2023 John F. Perkins Jr. Research Career Enhancement Award, *American Physiological Society*. July 2023.
3. Selected for the iACTIVATE Professional Development Program for early career investigators. July 2023.
4. Underrepresented in Medicine (URiM) Emerging Researchers Award, Department of Medicine, University of Alabama at Birmingham, June 2023.
5. Trainee choice invited speaker, Department of Physiology & Biophysics, Jacobs School of Medicine and Biomedical Sciences, SUNY University at Buffalo. May 2022.
6. Junior faculty travel award, The 2<sup>nd</sup> Acute Kidney Injury Conference: From Bench to Bedside, FASEB conference, Banff, Canada. May 2022.
7. Invited speaker to The 2<sup>nd</sup> Acute Kidney Injury Conference: From Bench to Bedside, FASEB conference, Banff, Canada. May 2022.
8. Selected as scholar in the NHLBI Programs to Increase Diversity Among Individuals Engaged in Health-Related Research (PRIDE) – 4<sup>th</sup> cohort Future Faculty of Cardiovascular Sciences (FOCUS) at UCSD, April 2022.
9. APS Abstract Young Investigator Merit Award, New Trends in Sex and Gender Medicine Conference, October 2021.
10. APS New Trends in Sex and Gender Medicine Diversity Conference Scholarship, October 2021.
11. 2020 Star Reviewer (1 of 3 out of more than 175 reviewers in the journal), *American Journal of Renal Physiology*, September 2021.
12. Return to Science Research Grant, *Sapphire North America*, July 2021.
13. Finalist for the *Acta Physiologica* Award, Scandinavian Physiological Society, May 2021 – *"Tauroursodeoxycholic acid (TUDCA) abolishes chronic high salt-induced renal injury and inflammation"*.
14. Accepted in the NIH Early Career Reviewer Program, April 2021.
15. Annual University of Utah Translational Hypertension Symposium and Early Stage Investigator Workshop Travel award, October 2020.
16. Women in Research Grant, Cayman Biomedical Research Institute, *Cayman Chemicals*, May 2020.

17. Fellow of the American Heart Association (FAHA), Council on the Kidney in Cardiovascular Disease (KCVD), September 2019.
18. 2019 APS Dale J. Benos Early Career Professional Service Award, *American Physiological Society*, March 2019.
19. American Heart Association Best of Specialty Conferences (Council on Hypertension 2018), selected Top 10% abstracts, *AHA Scientific Sessions*, September 2018.
20. Kidney Council New Investigator Award, *American Heart Association Council on Kidney in Cardiovascular Disease*, September 2018.
21. Featured early career investigator in the AHA Council on the Kidney in Cardiovascular Disease newsletter, *AHA Connections Newsletter*, Summer 2018.
22. NIDDK Basic Science Exemplary Research Award for best research abstract and exemplary oral presentation at the Network of Minority Health Research Investigators (NMRI) 16<sup>th</sup> Annual Workshop, Bethesda, MD. April 2018.
23. 2018 ASN Travel Award to attend and present at the NIDDK Network of Minority Health Research Investigators (NMRI) Workshop in Bethesda, MD. March 2018.
24. APS Minority Travel Fellowship Award to attend and present at the Experimental Biology meeting 2018, *American Physiological Society*, January 2018.
25. Physiology Understanding Week 5-year Organizer Award, *American Physiological Society*, April 2017.
26. Best Oral Presentation by a Postdoctoral Scholar, *1<sup>st</sup> prize, 2017 UAB Postdoctoral Research Day, University of Alabama at Birmingham*, February 2017.
27. Career Enhancement Award for Postdoctoral Scholars, *UAB Office of Postdoctoral Education*, January 2017.
28. APS Minority Travel Fellowship Award to attend and present at the Experimental Biology meeting 2017, *American Physiological Society*, January 2017.
29. Fellowship to attend the Writing and Reviewing for Scientific Journals Workshop, *American Physiological Society*, January 2017.
30. 2016 Dale Benos Scholar Award, *Nephrology Research Training Center, Department of Medicine/Nephrology, University of Alabama at Birmingham*, September 2016.
31. APS Travel Award, to attend and present at the APS Inflammation, Immunity and Cardiovascular Disease, *American Physiological Society*, August 2016.
32. Joseph Reeves Award for Excellence in Research by a Postdoctoral Scholar, *Honorable Mention, 32<sup>nd</sup> UAB Department of Medicine Trainee Research Symposium*, March 2016.
33. 2016-2017 APS K-12 Minority Outreach Fellowship Award, *American Physiological Society*, February 2016.
34. APS Minority Travel Fellowship Award to attend and present at the Experimental Biology meeting 2016, *American Physiological Society*, January 2016.
35. American Heart Association Best of Specialty Conferences (Council on Hypertension Scientific Sessions 2015), selected Top 10% abstracts, *AHA Scientific Sessions*, September 2015.

36. 2015 Dale Benos Scholar Award, *Nephrology Research Training Center, Department of Medicine/Nephrology, University of Alabama at Birmingham*, August 2015.
37. APS Minority Travel Fellowship Award to attend and present at the 14<sup>th</sup> International Conference in Endothelin, *American Physiological Society*, July 2015.
38. UAB Travel Award for Postdoctoral Scholars, *Office of Postdoctoral Education*, July 2015.
39. Best Oral Presentation by a Postdoctoral Scholar, *1<sup>st</sup> prize, 2015 UAB Postdoctoral Research Day, University of Alabama at Birmingham*, February 2015.
40. APS Minority Travel Fellowship Award to attend and present at the Experimental Biology meeting 2015, *American Physiological Society*, January 2015.
41. Travel fellowship to attend the 2<sup>nd</sup> Annual UAB Workshop on Metabolomics, *National Institute of General Medical Sciences (NIGMS) and Departments of Chemistry and Pharmacology and Toxicology at UAB*, May 2014.
42. Juan Carlos Romero Postdoctoral Research Recognition Award of the Water and Electrolyte Homeostasis Section, *American Physiological Society*, April 2014.
43. FASEB MARC Travel Award to attend the 2014 Postdoctoral Preparation Institute Workshop, *Federation of American Societies for Experimental Biology/Maximizing Access to Research Careers Program*, April 2014.
44. 2013 Caroline tum Suden/Francis A. Hellebrandt Professional Opportunity Award, *American Physiological Society - Women in Physiology Committee*, April 2013.
45. Award for Excellence in Research by a Postdoctoral Fellow, *29<sup>th</sup> Annual Graduate Research Day, Georgia Regents University*, finalist oral presentation, March 2013.
46. Trainee Poster Presentation Award, *Council for High Blood Pressure Research Trainee Advocacy Committee and Daiichi Sankyo Pharmaceuticals*, September 2012.
47. Award for Excellence in Research by a Postdoctoral Fellow: Best Poster Presentation, *28<sup>th</sup> Annual Graduate Research Day, Georgia Health Sciences University*, April 2012.
48. American Heart Association Best of Specialty Conferences (HBPR 2010), selected Top 10% abstracts, *AHA Scientific Sessions*, November 2010.
49. Kidney Council New Investigator Award - Trainee, *Council on Kidney in Cardiovascular Disease*, October 2010.
50. Cardiovascular Section Featured Topic Presenter Travel Award, *American Physiological Society*, April 2010.
51. Graduate Student Travel Award, *Medical College of Wisconsin*, April 2010.
52. Annual High Blood Pressure Research Conference New Investigator Award, *Council for High Blood Pressure Research*, September 2009.
53. Graduate Student Travel Award, *Medical College of Wisconsin*, September 2009.
54. Pre-doctoral Research Recognition Award of the Water and Electrolyte Homeostasis Section, *American Physiological Society*, April 2009.

55. Graduate Student Travel Award, *Medical College of Wisconsin*, April 2009.
56. Student Professional Development Fund, *College of Science and Engineering, St Cloud State University*, May 2005.
57. Graduate Student Research Scholarship, *St Cloud State University*, May 2005.

## Publications

1. **De Miguel C.**<sup>†</sup>, Marañón O.C. and Cuevas S. Inflammation and oxidative stress in vascular and renal disease: role of the inflammasome and pyroptosis. <sup>†</sup> **Corresponding author.** *Front. Physiol.* 14:1270554, September 2023.
2. Kraus A.C. and **De Miguel C.** Hyperoxia and acute kidney injury: a tale of oxygen and the kidney. *Seminars in Nephrology*, November 2022. *Semin Nephrol.* 2022 Nov 17:151282. doi: 10.1016/j.semnephrol.2022.10.008.
3. Matsumura S., D'Addario C., Slivan O.J., **De Miguel C.**, Stier C., Gupte R., Minao J.M. and Gupte S. Mediterranean G6PD variant rats are protected from Angiotensin II-induced hypertension and kidney damage, but not from inflammation and arterial stiffness. *Vasc Pharmacol.* 145, August 2022, 107002.
4. **De Miguel C.** Managing your career: How to use social media to promote your scientific career. *Tips for Professional development, American Physiological Society.* June 2022. <https://www.physiology.org/professional-development/career-professional-development/career-gateway/trainee-resources/designing-your-career/how-to-use-social-media-to-promote-your-scientific-career?emid=gL89YqDEVQ3JPQcAokhxZ5L5thuGW15cfxSeGUR7XZU%3d&SSO=Y>
5. Gohar E.Y., **De Miguel C.**, Obi I.E., Daugherty E.M., Hyndman K.A., Becker B.K., Jin C., Sedaka R., Johnston J.G., Liu P., Speed J.S., Mitchell T., Kriegel A.J., Pollock J.S., Pollock D.M. Acclimation to a high salt diet is sex-dependent. *Journal of the American Heart Association.* 2022 Mar; 11(5):e020450.
6. **De Miguel C.**<sup>†</sup>, Pelegrín P., Baroja A. and Cuevas S.<sup>†</sup>. Emerging role of the inflammasome and pyroptosis in hypertension. *Int. J. Mol. Sci.* 2021 22 (3) 1064. <sup>†</sup> **Corresponding authors.**
7. Gohar E.Y., Almutlaq R. N., Daugherty E. M., Butt M.K., Jin C., Pollock J.S., Pollock D.M., **De Miguel C.**<sup>‡</sup> Activation of G Protein-Coupled Estrogen Receptor 1 Ameliorates Proximal Tubular Injury and Proteinuria in Dahl Salt-Sensitive Female Rats. *Am J Physiol Reg Int Comp Physiol* 2021 Mar 1;320(3):R297-R306. <sup>‡</sup> **Senior author.**
8. Hutchens M.P. and **De Miguel C.**<sup>†</sup> The CAT-1 is out of the bag: endothelial Cationic Amino Acid Transporter-1 is a critical player in cardiorenal syndrome type 2. *Clinical Science* (2021) 135: 105-108. <sup>†</sup> **Corresponding author.**
9. Zimmerman M. A., Ogola, B. O., Wilkinson, M.M, **De Miguel, C.**, and Lindsey S.H. Medroxyprogesterone Opposes Estradiol-Induced Renal Damage in Midlife Ovariectomized Long Evans Rats. *Menopause.* 2020 27 (12) 1411-19.
10. **De Miguel C.**<sup>†</sup>, Kraus A.C., Saludes M.A., Konkalmatt P., Ruiz Domínguez A., Asico L.D., Offen D., Jose P.A., and Cuevas S.<sup>†</sup>. ND-13, a DJ-1 Derived Peptide, Attenuates the Renal Expression of Fibrotic and Inflammatory Markers Associated with Unilateral Ureter Obstruction. *Int. J. Mol. Sci.* 2020 21(19) 7048. <sup>†</sup> **Corresponding authors.**
11. Gohar E.Y., Daugherty E.M., Aceves J.O., Sedaka R., Obi I.E., Allan J.M., Soliman R. H., Jin C., **De Miguel C.**, Lindsey S.H., Pollock J.S., Pollock D.M. Evidence for G Protein-coupled Estrogen

- Receptor as a Pro-natriuretic Factor. *Journal of the American Heart Association* 2020 May 18; 9 (10): e015110.
12. Mitchell, T., **De Miguel C.**, and Gohar E.Y. Sex differences in redox homeostasis in renal disease. *Redox Biology* 2020 April 31:101489.
  13. **De Miguel, C.** UAB: Hypertension and Kidney Research in the Heart of Alabama. *AHA Connections Magazine*. Summer 2019.
  14. **De Miguel C.**, Hamrick W.C., Sedaka R.S., Jagarlamudi S., Asico L.D., Jose P.A., Cuevas S. Uncoupling Protein 2 increases blood pressure in DJ-1 knockout mice. *Journal of the American Heart Association*. 2019 May 7; 8 (9):e011856.
  15. **De Miguel C.†**, Sedaka R., Kasztan M., Lever J.M., Sonnenberger M., Abad A., Jin C., Carmines P.K., Pollock D.M., Pollock J.S. Tauroursodeoxycholic acid (TUDCA) abolishes chronic high salt-induced renal injury and inflammation. *Acta Physiologica* 2019 May; 226(1):e13227 † **Corresponding author.**
  16. **De Miguel C.** Teaching Kidney Physiology in Inner City Elementary Schools is PhUn!! American Physiological Society PhUn Week blog. February 2019. <https://blog.lifescitrc.org/phunweek/2019/02/06/teaching-kidney-physiology-in-inner-city-elementary-schools-is-phun/>
  17. Loria A.S., Spradley F.T., Obi I.E., Becker B., **De Miguel C.**, Speed J.S., Pollock D.M., and Pollock J.S. Maternal Separation Enhances Anti-contractile Perivascular Adipose Tissue Function in High Fat-Fed Male Rats. *Am J Physiol Reg Int Comp Physiol*. 2018 315: R1085–R1095.
  18. **De Miguel, C.\***, Obi, I.E.\*, Ho, D.H., Loria, A.S., and Pollock J.S. Early life stress induces renal pro-inflammatory mediators in adult male rats. *Am J Physiol Reg Int Comp Physiol* 2018 Mar 1; 314(3):F343-F355. \* indicates co-first authorship. **Selected by APSselect as one of the best recently published articles in physiological research.**
  19. Kasztan, M., Fox, B.M., Speed, J.S., **De Miguel, C.**, Gohar, E.M., Townes, T.M., Kutlar, A., Pollock, J.S., and Pollock D.M. Long-term ET<sub>A</sub> receptor antagonism provides robust renal protection in humanized sickle cell disease mice. *J Am Soc Nephrol*. 2017 Aug; 28(8):2443-2458.
  20. **De Miguel C.**, Hamrick W.C., Hobbs J., Carmines P.K., David M. Pollock, and Pollock J.S. Endothelin receptor-specific control of endoplasmic reticulum stress and apoptosis in the kidney. *Scientific Reports* 2017 7: 43152.
  21. Saleh M.A., **De Miguel C.**, Stevens D.I., Carmines P.K., Pollock D.M. and Pollock J.S. Free radical scavenging decreases endothelin-1 excretion and glomerular albumin permeability during type 1 diabetes. *Physiological Reports* 2016 Dec; 4(24): e13055.
  22. **De Miguel C.**, Speed J.S., Kasztan M., Gohar E.Y. and Pollock D.M. Endothelin-1 and the kidney: new perspectives and recent findings. *Curr Opin Nephrol Hypert* 2016 25(1):35-41.
  23. **De Miguel C.**, Pollock D.M. and Pollock, J.S. Endothelial-derived ET-1 and the development of renal injury. *Am J Physiol Reg Int Comp Physiol* 2015 309(9):R1071-3.
  24. **De Miguel C.**, Rudemiller N.P., Abbais J.M. and Mattson D.L. Inflammation and hypertension: new understandings and potential therapeutic targets. *Curr Hypertens Rep* 2015 17(1):507.
  25. Xu X., Su S., Wang X., Barnes V., **De Miguel C.**, Ownby D., Pollock J., Snieder H., Chen W. and Wang X. Obesity is Associated with More Activated Neutrophils in African American Male Youth. *Int J Obes* 2015 39, 26-32.

26. Osmond D.A., Zhang S., Pollock J.S., Yamamoto T., **De Miguel C.** and Inscho E.W. Clopidogrel preserves whole kidney autoregulatory behavior in ANG II-induced hypertension. *Am J Physiol Renal Physiol* 2014 306 (6):F619-28.
27. Spradley F.T.\*, **De Miguel C.\***, Hobbs J., Pollock D.M. and Pollock J.S. Mycophenolate mofetil prevents high fat diet-induced hypertension and renal glomerular injury in Dahl SS rats. *Physiological Reports* 2013 (1 (6): e00137). \* indicates co-first authorship.
28. **De Miguel C.\***, Foster J.M.\*, Carmines P.K., and Pollock, J.S. Interaction between NO synthase and NADPH oxidase in control of sodium transport by the renal thick ascending limb during diabetes. *Acta Physiologica* 2013 209 (2):148-155. \* indicates co-first authorship. **Selected for an editorial.**
29. **De Miguel C.** and Pollock, J.S. Does endoplasmic reticulum stress mediate endothelin-1-induced renal inflammation? *Am J Physiol Reg Int Comp Physiol* 2013; 305 (2):R107-9.
30. Xu X., Su S., Barnes V., **De Miguel C.**, Pollock J., Ownby D., Shi H., Zhu H., Snieder H., and Wang X. A genome-wide methylation study on obesity: Differential variability and differential methylation. *Epigenetics* 2013; 8 (5): 522-533.
31. **De Miguel C.**, Lund H. and Mattson D.L. High dietary protein exacerbates hypertension and renal damage in Dahl salt-sensitive (SS) rats by increasing infiltrating immune cells. *Hypertension* 2011; 57 (2):269-274.
32. **De Miguel C.**, Guo C., Lund H., Feng D. and Mattson D.L. Infiltrating T lymphocytes in the kidney increase oxidative stress and participate in the development of salt-sensitive hypertension and renal injury. *Am J Physiol Renal Physiol* 2011; 300 (3):F734-742.
33. **De Miguel C.**, Das S., Lund H. and Mattson D.L. Renal infiltration of T-lymphocytes is associated with elevated intrarenal angiotensin II (AngII) and the development of hypertension and kidney damage in Dahl salt-sensitive (SS) rats. *Am J Physiol Reg Int Comp Physiol* 2010; 298 (4):R1136-1142.
34. Pechman K.R., **De Miguel C.**, Lund H., Basile D.P. and Mattson D.L. Recovery from renal ischemia-reperfusion injury is associated with altered renal hemodynamics, blunted pressure natriuresis, and sodium-sensitive hypertension. *Am J Physiol Reg Int Comp Physiol*. 2009; 297: R1358-1363.
35. Rajapakse N.W., **De Miguel C.**, Das S. and Mattson D.L. Exogenous L-Arginine ameliorates angiotensin II-induced hypertension and renal damage in rats. *Hypertension*. 2008; 52:1-2. **Selected to be on the cover of the journal.**

## Leadership Positions

### A. American Heart Association:

1. Member-at-large, *Leadership Committee, American Heart Association Council on Hypertension*, July 2023-June 2025.
2. Chair, *Communications Committee, American Heart Association Council on the Kidney in Cardiovascular Disease*, July 2023 – present.
3. Representative of the *American Heart Association Council on the Kidney in Cardiovascular Disease* to the Editorial board of the *Journal of American Heart Association*, May 2023-present.
4. Member, *Awards and Lectures subcommittee, Council Operations Committee, American Heart Association*, November 2022-July 2024.
5. Member, *Communications Committee, American Heart Association Council on Hypertension*, July 2022-June 2024.
6. Vice-chair, *Communications Committee, American Heart Association Council on the Kidney in Cardiovascular Disease*, July 2021 – June 2023.
7. Member, *Leadership committee, American Heart Association Council on the Kidney in Cardiovascular Disease*, July 2021 - present.



8. *Social Media Administrator, American Heart Association Council on the Kidney in Cardiovascular Disease*, July 2020 - present.
9. Member, *Membership and Communications Committee, Council on Hypertension*, July 2020-June 2022.
10. Member, *Council on Hypertension Awards Committee*, July 2019 – June 2023.
11. Member, *Membership and Communications Committee, Council on the Kidney in Cardiovascular Disease*, September 2017 – June 2021.
12. Member, *Trainee Advocacy Committee, Council on Hypertension*, December 2016 – December 2022.

**B. American Physiological Society:**

1. *Co-chair, Water and Electrolyte Homeostasis Section Awards Committee, American Physiological Society*, August 2023 - present.
2. *Renal Section Awards Committee member, American Physiological Society*, July 2022 – 2025.
3. *Steering Committee member, Parliamentarian and Councilor-at-large, Water and Electrolyte Homeostasis Section, American Physiological Society*, April 2022 - present.
4. *Water and Electrolyte Homeostasis Section Awards Committee, American Physiological Society*, August 2020 - 2023.
5. *International Committee member, American Physiological Society*, January 2020 - April 2023.
6. *Steering Committee member, Membership Chair and Councilor-at-large, Water and Electrolyte Homeostasis Section, American Physiological Society*, April 2019 – April 2022.
7. *American Physiological Society Life Science Teaching Resource Community (LifeSciTRC) Review Board*, April 2016 – present.
8. *Education Committee member, American Physiological Society*, January 2015 - December 2017.
9. *Trainee subcommittee member, American Physiological Society Water and Electrolyte Homeostasis Section*, January 2014 - December 2016.
10. *Trainee representative, Communications Committee, American Physiological Society*, January 2011 - December 2013.

**C. University of Alabama at Birmingham:**

1. Department of Medicine Wellness Council, member, October 2023- present.
2. Associate Director, KURE-Mentoring Academy program, September 2022-present.
3. Co-leader, UAB Nephrology Research Training Center (NRTC) seminar series, May 2022-present.
4. *Koopman Medical Student Research Excellence Award selection committee*, April 2022.
5. *Kidney Undergraduate Research Experience (KURE) Advisory Committee*, February 2022-present.
6. *Kidney Undergraduate Research Experience (KURE) student selection committee*, March 2022-present.
7. *UAB Center for Clinical and Translational Science (CCTS) Grant Review Panels Done Quickly*, member, January 2022 – present.
8. *Research Intensive Faculty search committee member*, Division of Nephrology, Department of Medicine, November 2021-present.
9. *UAB Kidney Club science outreach*, leader, Division of Nephrology, Department of Medicine, September 2020 - present.
10. *Career Development Award (K) Internal Review Panel, member, Department of Medicine, October 2020 - present.*
11. *Research Development Group*, member, Department of Medicine, August 2020 - August 2023. Extended for another term (until 2026).
12. *Task Force for Addressing Systemic Racism*, Division of Nephrology, Department of Medicine, August 2020 - present.
13. Director, *Study section Meeting And Review Training (SMART) grant review program for trainees at UAB*, Section of Cardio-Renal Physiology and Medicine, Department of Medicine/Nephrology, September 2017 – September 2021.
14. *Birmingham Physiology Network Board member, training program coordinating committee member*, November 2015 - present.

15. *Scientific Peer-mentoring and Advisory for Renal and Cardiovascular fellows (SPARC) Program at UAB*, co-leader, February 2016 - February 2018.

## **Organized/Chaired conference sessions and symposia**

1. *Sex Differences and Hypertension-Associated Complications of Pregnancy. Trainee Advocacy Committee Oral Abstract Session.* AHA Hypertension Scientific Sessions. Co-chaired with Emily Waigi. September 7, 2023.
2. *Cardiovascular Physiology and Diseases*, Seventeenth International Conference on Endothelin. Co-chaired with Dr. David Webb. October 4, 2021.
3. *Hormones and Growth Factors: Trainee Advocacy Committee Oral Abstract session.* AHA Hypertension Scientific Sessions, September 2021. \*Virtual Conference due to COVID-19.
4. *Mechanisms of Hypertension I: Top TAC Awards moderated session.* AHA Hypertension Scientific Sessions, September 2020. Co-chaired with Dr. Sivarajan Kumarasami. \*Virtual Conference due to COVID-19.
5. *Watokines, Diabesity, and Inflammaging*, Experimental Biology Meeting, San Diego, CA. April 2020. Co-chaired with Dr. Edgar D. Torres Fernandez. \*Conference cancelled due to COVID-19; APS Live: EB Featured Topics virtual session held on May 29, 2020.
6. *Mechanisms of Chronic Kidney Disease and Fibrosis*, AHA Council on Hypertension 2019 Scientific Sessions. Co-chaired with Dr. Daria Ilatovskaya.
7. *CHAMP (Council on Hypertension Advisory and Mentoring Program) panel organizer and session moderator*, AHA Council on Hypertension 2019 Scientific Sessions.
8. *Obesity, Diabetes and Metabolic Syndrome*, AHA Council on Hypertension 2018 Scientific Sessions. Co-chaired with Dr. Kamal Rahmouni.
9. *Mechanisms of Hypertension Risk*, APS Water and Electrolyte Homeostasis Section, Experimental Biology 2017. Co-chaired with Dr. Justine Abais-Battad.
10. *Inflammation, Immunity and Cytokines II*, AHA Hypertension 2015 Scientific Sessions. Co-chaired with Dr. Mohan Raizada.
11. *Under stress: Endoplasmic Reticulum Stress and Apoptosis in cardiovascular and renal disease*, APS Water and Electrolyte Homeostasis Section, Experimental Biology 2014. Co-chaired with Dr. Frank Spradley.
12. *Pathogenesis of renal dysfunction in hypertension*, FASEB Renal Hemodynamics Meeting 2013. Co-chaired with Dr. Ole Skott.
13. *Obesity and Inflammation: Contributions to Vascular and Renal Disease*, APS Water and Electrolyte Homeostasis Section, Experimental Biology 2013. Co-chaired with Dr. Frank Spradley.
14. *Regulation of water and electrolyte balance in diabetic nephropathy*, APS Water and Electrolyte Homeostasis Section, Experimental Biology 2012. Co-chaired with Dr. Richard Roman.

## **Grant review panels**

1. *Special emphasis Panel/Scientific Review Group 2024/05 HLBP-K (workgroup 22) 1 Program Project Grants, Immunity and Cardiovascular Diseases*, NHLBI, January 2024.
2. *Innovative Project Award Vascular Basic Sciences 1 Peer Reviewer Committee*, American Heart Association, January 2023-present.
3. *Clinical 2 Fellowship Peer Review Committee*, American Heart Association, November 2022 - present.
4. *NIDDK-sponsored Innovative Science Accelerator (ISAC) Funding Program*, May 2022, December 2022, December 2023, January 2024.
5. *Kidney and Urological Systems Functions and Dysfunction (KUFD) Study Section*, NIH – as part of the Early Career Reviewer Program, February 2022.
6. *UAB Center for Clinical and Translational Science (CCTS) Grant Review Panels Done Quickly*, member, January 2022 – present.
7. *HT Peer Review Panel*, Medical Research Program (PRMRP), Department of Defense Congressionally Directed Medical Research Programs (CDMRP), October 2021, August 2022.
8. *Pre-HT Peer Review Panel*, Medical Research Program (PRMRP), Department of Defense Congressionally Directed Medical Research Programs (CDMRP), June 2021.

9. *Career Development Award Vascular 3 Peer Review Committee*, American Heart Association, May 2021 - present.
10. *Career Development Award Vascular 2 Peer Review Committee*, American Heart Association, April 2021.
11. *United Kingdom Research and Innovation (UKRI), Medical Research Council Grant Proposal Review Committee*, November 2020.
12. *Career Development Award (K) Internal Review Panel, member, Department of Medicine, October 2020 - present.*
13. *Center for Heart and Vascular Research Pilot Project Application Review Committee*, University of Nebraska Medical Center, December 2019 - present.
14. *Vascular Endothelial Biology Basic Science Fellowship Peer Review Committee*, American Heart Association, 2019 - present.

## Review groups

1. Center for Physiology Education Focus group, Review editor, *American Physiological Society*, May 2021.

## Editorial boards

1. Editorial board member, *American Journal of Physiology Heart and Circulatory Physiology*, December 2023 – present.
2. Editorial board member, Review editor, *Frontiers in Physiology – Renal Physiology and Pathophysiology*, May 2023 - present.
3. Guest editor, *American Journal of Physiology Heart and Circulatory Physiology*, May 2023 – present.
4. Editorial board member, *Journal of the American Heart Association*, April 2023 - present.
5. Guest editor, *Frontiers in Immunology*, March 2023.
6. Guest Editor, Topic editor, *Frontiers in Medicine, Obstetrics and Gynecology*, January 2023.
7. Editorial board member, *Circulation Research*, June 2022-present.
8. Guest Associate Editor, Topic editor, *Frontiers in Redox Physiology*, June 2022 - present.
9. Editorial board member, Reviewing editor, *Experimental Physiology*, February 2022 - present.
10. Editorial board member, Review editor, *Frontiers in Physiology – Metabolic Physiology*, March 2021 - present.
11. Editorial board member, *American Journal of Physiology Renal Physiology*, July 2020 - present.
12. Editorial board member, *Biomedicine and Pharmacotherapy*, December 2023 - present.
13. Associate editor, *Biomedicine and Pharmacotherapy*, December 2019 – December 2023.
14. Junior editor, *Hypertension Digital Editorial Team*, September 2018 - present.

## Journal Ad hoc Reviewer

1. American Journal of Physiology Heart and Circulatory Physiology
2. American Journal of Physiology Regulatory, Integrative and Comparative Physiology
3. American Journal of Physiology Renal Physiology
4. Autophagy
5. Biochemical Pharmacology
6. Biomedicines
7. Bioscience Reports
8. Canadian Journal of Physiology and Pharmacology
9. Cell Biology and Toxicology
10. Cellular signaling
11. Circulation
12. Circulation Research
13. Clinical and Translational Medicine
14. Clinical Research
15. Clinical Science
16. Current Molecular Medicine
17. Cytokine
18. Diabetes/Metabolism Research and Reviews

19. European Journal of Pharmacology
20. Experimental and Molecular Pathology
21. Experimental Biology and Medicine
22. Experimental Physiology
23. FASEB Journal
24. Food Research International
25. Free Radical Biology and Medicine
26. Frontiers – Vascular Biology
27. Frontiers in Physiology
28. Frontiers in Immunology
29. Frontiers in Genetics
30. Hypertension
31. JASN
32. Journal of Physiology and Pharmacology
33. Journal of the American Heart Association
34. Laboratory Investigation
35. Life Sciences
36. Molecular Biology Reports
37. Molecular Medicine
38. Nature Nephrology
39. Oxidative Medicine and Cellular Longevity
40. Pharmacogenomics Journal
41. Pharmacological Research
42. Physiological Reports
43. Physiological Research
44. PLOS ONE
45. Scientific Reports
46. The American Journal of the Medical Sciences
47. Toxicology in vitro

## Abstract Reviewer

1. Angiotensin Gordon Research Conference - Interplay Between the RAAS and Other Hormonal Systems, January 2024.
2. American Physiological Society, Renal section trainee abstracts, January 2023, December 2024.
3. American Physiological Society, Water and Electrolyte Homeostasis section trainee abstracts, January 2023, December 2024.
4. ENDO 2024, Endocrine Society Annual Conference Abstracts, December 2024.
5. ENDO 2023, Endocrine Society Annual Conference Abstracts, January 2023.
6. American Society of Nephrology, Kidney Week 2022.
7. ENDO 2022, Endocrine Society Annual Conference Late-breaking Abstracts, April 2022.
8. ENDO 2022, Endocrine Society Annual Conference Abstracts, January 2022.
9. ENDO 2021, Endocrine Society Annual Conference Abstracts, November 2020.
10. BioRender, Graphical Abstract Competition, 2020.
11. American Physiological Society, Caroline tum Suden/Frances Hellebrandt Professional Opportunity Awards 2020.
12. American Society of Nephrology, Kidney Week 2019.
13. Society for the Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS) – National Diversity in STEM Conference 2018, 2019, 2020.
14. UAB Medical Student Research Day 2018, 2020.
15. UAB Kidney Undergraduate Research Experience (KURE) poster and symposium 2017, 2018.
16. Annual Biomedical Research Conference for Minority Students (ABRCMS) 2016, 2017, 2018, 2019, 2020.
17. American Heart Association Scientific Sessions 2016.
18. American Physiological Society David Bruce/Horwitz-Horowitz Excellence in Undergraduate Research Awards 2015- 2021, 2023, 2024.
19. American Physiological Society Early Career Innovator Award 2015 - 2017.

## Scientific Society Memberships

1. American Society of Nephrology. 2013-present.
2. American Heart Association. 2009-present.
3. The American Physiological Society. 2006-present.
4. The Endocrine Society. 2005-present.
5. SACNAS. 2019-present.

## Conference Talks and Seminars

### A. International:

1. “El sistema de la endotelina y diferencias de sexo en la enfermedad renal crónica”. Vice-Chancellor Seminar series in Nephrology, Department of Medicine and Science, University San Sebastián, Concepción, Chile. January 23, 2024.
2. “The endothelin system and sex differences in chronic kidney disease”. Seminar series on basic to translational sciences, Ribeirão Preto Medical School, University of São Paulo, Brazil. August 24, 2023. **Trainee Choice Invited speaker.**
2. “Hyperoxia and AKI: a role for endothelin-1?”, The 2<sup>nd</sup> Acute Kidney Injury Conference: From Bench to Bedside, FASEB conference, Banff, Canada. May 16, 2022. **Invited speaker.**
3. “Promote your scientific career through social media”, Quarter Course session, International Mentoring Foundation for the Advancement of Higher Education (IMFAHE). March 16, 2022.
4. “Inflammatory and cell death pathways in diabetic kidney disease: the role of endothelin-1”, Department seminar, Department of Physiology, Anatomy and Microbiology, LaTrobe University, Melbourne, Australia. November 1, 2021.
5. “To tweet or not to tweet: Las redes sociales y la Ciencia moderna”, Department seminar, Foundation for Biomedical Investigation i+12/ Instituto de Investigación Biomédica Hospital Universitario 12 de Octubre, Madrid, Spain. October 28, 2021.
6. “Inflamación y muerte celular durante la enfermedad renal diabética: el papel de Endothelin-1”, Department seminar, Department of Pharmacy and Biochemistry, University of Buenos Aires, Argentina. May 26, 2021.
7. “To tweet or not to tweet: las redes sociales y la Ciencia moderna”, Department seminar, Biomedical Research Institute of Murcia/ Instituto Murciano de Investigación Biosanitaria Virgen de la Arrixaca (IMIB-Arrixaca), El Palmar, Murcia, Spain. May 13, 2021.
8. “Differential activation of renal cell death pathways in male and female vascular endothelial cell ET-1 knockout mice during diabetes.” 16<sup>th</sup> International Conference on Endothelin: Physiology, Pathophysiology and Therapeutics. Kobe, Japan. September 2019.

### B. National:

1. “The endothelin system and sex differences in chronic kidney disease”. Lunch & Learn seminar series, Cardiovascular Center, Medical College of Wisconsin, Milwaukee, WI. August 16, 2023.
2. “Endothelin-1 and dendritic cells in salt-sensitive hypertension”. UC San Diego Future Faculty of Cardiovascular Sciences (FOCUS) Program Summer Institute II. San Diego, CA. July 21 2023.
3. “The endothelin system and sex differences in chronic kidney disease”. Core Concepts seminar series, Division of Nephrology, University of Alabama at Birmingham, Birmingham, AL. June 5 2023.
4. “Endothelin-1 and dendritic cells in salt-sensitive hypertension”. Research-track meeting for residents, Internal Medicine, University of Massachusetts Chan School of Medicine, MA. May 18 2023.
5. “Endothelin-1 and dendritic cells in salt-sensitive hypertension”. NIH PRIDE Program Annual Meeting. Bethesda, MD. April 24 2023.
6. “NIH Early career reviewer (ECR) program”. Peer reviewer’s perspective workshop. NIH PRIDE Program Annual Meeting. Bethesda, MD. April 24 2023.
7. “Sex differences in renal mechanisms of salt-sensitive hypertension”. American Physiology Summit 2023. Long Beach, CA. April 2023. **Foundational Science Session Keynote speaker.**
8. “Mentoring is not short-term: Effective continuing mentoring strategies for undergraduate summer short-term summer programs”. American Physiology Summit 2023. Long Beach, CA. April 2023.

9. "Inflammatory and Cell Death Pathways in Diabetic Kidney Disease: the Role of Endothelin-1", Center for Precision Medicine, Wake Forest School of Medicine, Winston-Salem, NC. March 28, 2023.
10. "Inflammatory and Cell Death Pathways in Diabetic Kidney Disease: the Role of Endothelin-1", Department of Physiology, University of Arizona Tucson, Tucson, AZ. March 17, 2023.
11. "Inflammatory and Cell Death Pathways in Diabetic Kidney Disease: the Role of Endothelin-1", Department of Physiology & Biophysics, Jacobs School of Medicine and Biomedical Sciences, SUNY University at Buffalo. May 26, 2022. **Trainee Choice Invited speaker.**
12. "Inflammation and cell death pathways in diabetic kidney disease: the role of endothelin-1", Faculty Investigator Research in Medicine Seminars (FIRMS-Nephrology), University of Texas Southwestern. May 9, 2022.
13. "Social media and the modern scientist", Women in Pathology, American Society for investigative Pathology (ASIP). May 4, 2022.
14. "To tweet or not to tweet: Using social media to promote your scientific career", Cardiovascular Translational Research Center, School of Medicine Columbia, University of South Carolina. April 29, 2022.
15. "Using social media to promote your manuscripts and scientific career", APS Trainee Advocacy Committee Symposium, Experimental Biology Meeting, Philadelphia, PA. April 5, 2022.
16. "Social media and the modern scientist", Women in Medicine and Science (WiMS), Department of Medicine, Tufts Medical Center. March 8, 2022.
17. "Social media and the modern scientist", Graduate School of Biomedical Sciences, Tufts University. November 10, 2021.
18. "Social media and the modern scientist", Women in Medicine and Science (WiMS), Department of Medicine, University of Kentucky, KY. April 20, 2021.
19. "Reaching out: Engaging the Public with Science", Kentucky Academy of Science (KAS) Science Communication, Education and Advocacy Symposium. March 26, 2021.
20. "Inflammatory and cell death pathways in diabetic kidney disease: the role of endothelin-1", Renal Grand Rounds, Division of Renal Medicine, Emory University, Atlanta, GA. January 2021.
21. "Next Generation Scientist: Science Outreach and Community Engagement". American Physiological Society, Trainee Advisory Committee Next Generation Scientist Webinar Series. December 2020.
22. "Social media and the modern scientist", Department of Kinesiology and Health Sciences, Virginia Commonwealth University, Richmond, VA. November 2020.
23. "Cell death and inflammatory pathways in diabetic kidney disease: the role of endothelin-1", Nephrology Research & Training Center (NRTC) Seminar Series, Division of Nephrology, University of Alabama at Birmingham, Birmingham, AL. October 2020.
24. "Social media and the modern scientist", Training Leaders course, Department of Physiology and Pharmacology, University of Toledo, Toledo, OH. August 2020.
25. "Sex differences in the activation of renal cell death pathways in diabetic vascular endothelial cell ET-1 knockout mice". Experimental Biology Meeting, San Diego, CA. April 2020. \*Conference cancelled due to COVID-19 – Talk given in the APS Live: EB Featured Topics virtual session held on May 29, 2020. **Featured speaker.**
26. "Differential activation of renal cell death pathways in male and female vascular endothelial cell ET-1 knockout mice during diabetes." 16<sup>th</sup> International Conference on Endothelin: Physiology, Pathophysiology and Therapeutics. Kobe, Japan. September 2019.
27. "The role of the endothelin system in renal damage and inflammation". Renal Grand Rounds, Division of Renal Diseases and Hypertension, University of Minnesota, Minneapolis, MN. June 2019.
28. "Activation of the renal inflammasome and dendritic cells with ET<sub>B</sub> receptor dysfunction during type 1 diabetes". UAB-Vanderbilt Nephrology Retreat, Chattanooga, TN. June 2019.
29. "The endothelin system in renal damage and inflammation". Department of Cellular & Integrative Physiology, University of Nebraska Medical Center, Omaha, NE. March 2019.
30. "Loss of ET<sub>B</sub> Receptor Function Activates Inflammasome Signaling Pathways and Dendritic Cells in the Renal Outer Medulla during Type 1 Diabetes". AHA Council on Hypertension 2018 Scientific Sessions, Chicago, IL. September 2018.

31. "ND-13, a DJ-1-derived peptide, protects against the renal fibrosis and inflammation associated with unilateral ureter obstruction". AHA Council on Hypertension 2018 Scientific Sessions, Chicago, IL. September 2018.
32. "Loss of ET<sub>B</sub> receptor primes the renal inflammasome during type 1 diabetes". NIDDK Network of Minority Health Research Investigators (NMRI) 16<sup>th</sup> Annual Workshop, Bethesda, MD. April 2018.
33. "Endothelin-1, inflammation and chronic kidney disease". Nephrology Research & Training Center (NRTC) Seminar Series, Division of Nephrology, University of Alabama at Birmingham, Birmingham, AL. March 2018.
34. "Salt-dependent kidney damage is prevented by TUDCA treatment". UAB-Vanderbilt Nephrology Retreat, Chattanooga, TN. July 2017.
35. "Tauroursodeoxycholic acid (TUDCA) prevents high salt-induced renal damage in ET<sub>B</sub> deficient rats in a blood pressure-independent manner". 2017 UAB Postdoctoral Research Day, University of Alabama at Birmingham, Birmingham, AL. February 2017.
36. "Tauroursodeoxycholic acid (TUDCA) prevents high salt-induced renal damage in ET<sub>B</sub> deficient rats in a blood pressure-independent manner". AHA Council on Hypertension 2016 Scientific Sessions, Orlando, FL. September 2016.
37. "Early life stress induces renal pro-inflammatory immune responses". 2016 UAB Postdoctoral Research Day, University of Alabama at Birmingham, Birmingham, AL. February 2016.
38. "Early life stress induces renal pro-inflammatory immune responses". AHA Council on Hypertension 2015 Scientific Sessions, Washington, D.C. September 2015.
39. "The Endothelin System Mediates Renal Endoplasmic Reticulum Stress and Apoptosis". 14<sup>th</sup> International Conference on Endothelin: Physiology, Pathophysiology and Therapeutics, Savannah, GA. September 2015.
40. "Endothelin-1 promotes renal endoplasmic reticulum stress and apoptosis". UAB-Vanderbilt Nephrology Retreat, Chattanooga, TN. August 2015.
41. "The Role of Endothelin-1 in the Development of Renal Endoplasmic Reticulum Stress". Nephrology Research & Training Center (NRTC) Seminar Series, Division of Nephrology, University of Alabama at Birmingham, Birmingham, AL. April 2015.
42. "Evidence that Vascular Endothelial Derived Endothelin-1 Promotes Development of Tunicamycin-Induced Endoplasmic Reticulum Stress in Renal Vessels". Data Diuresis, APS Water and Electrolyte Homeostasis Section, Experimental Biology meeting, Boston, MS. March 2015.
43. "The Endothelin System Mediates Renal Endoplasmic Reticulum Stress Development". 2015 UAB Postdoctoral Research Day, University of Alabama at Birmingham, Birmingham, AL. February 2015.
44. "The Endothelin System and the Development of Renal Endoplasmic Reticulum Stress". Southern Salt, Water and Kidney Club, Sarasota, FL. December 2014.
45. "Renal Endoplasmic Reticulum (ER) stress is induced *via* Endothelin A (ET<sub>A</sub>) receptor". Experimental Biology meeting, San Diego, CA. April 2014.
46. "Renal Endoplasmic Reticulum (ER) stress is induced *via* Endothelin A (ET<sub>A</sub>) receptor". Juan Carlos Romero Postdoctoral Research Recognition Award Symposium, APS Water and Electrolyte Homeostasis Section, Experimental Biology meeting, San Diego, CA. April 2014.
47. "Endothelin B receptor protects against endoplasmic reticulum stress-induced renal damage". Data Diuresis, APS Water and Electrolyte Homeostasis Section, Experimental Biology meeting, Boston, MS. April 2013.
48. "Endothelin B receptor protects against renal endoplasmic reticulum stress". 29<sup>th</sup> Annual Graduate Research Day, College of Graduate Studies, Georgia Regents University, Augusta, GA. March 2013.
49. "Mechanisms of Endothelin-dependent Inflammation during Diabetic Nephropathy". Research Forum Series, Section of Experimental Medicine, Department of Medicine, Georgia Health Sciences University, Augusta, GA. December 2011.
50. "Adoptive Transfer of Renal Infiltrating T-lymphocytes Increases Blood Pressure and Renal Damage in Dahl Salt-Sensitive (SS) Rats". 64<sup>th</sup> High Blood Pressure Research Conference, Washington, D.C. October 2010.
51. "Motilin and secretion of gonadotropin-releasing hormone (GnHR) in hypothalamic explants from male and female Sprague-Dawley rats". Master's thesis defense. Department of Biological Sciences, St. Cloud State University, St. Cloud, MN. June 2010.

52. "Renal infiltration of immune cells and salt-sensitive hypertension". Doctoral dissertation defense, Department of Physiology, Medical College of Wisconsin, Milwaukee, WI. May 2010.
53. "High Dietary Protein Exacerbates Hypertension and Renal Damage in Dahl Salt-Sensitive (SS) Rats by Increasing Infiltrating Immune Cells". Experimental Biology Meeting, Anaheim, CA. April 2010.
54. "The role of renal immune cell infiltration in salt-sensitive hypertension". Vascular Biology Center, Medical College of Georgia, Augusta, GA. October 2009.
55. "Renal infiltrating T-lymphocytes are associated with increased renal oxidative stress in Dahl Salt Sensitive (SS) hypertension". 63<sup>rd</sup> High Blood Pressure Research Conference, Chicago, IL. September 2009.
56. "The role of renal immune cell infiltration in salt-sensitive hypertension". Department of Physiology Seminar Series, Medical College of Wisconsin, Milwaukee, WI. July 2009.
57. "Renal infiltration of T-lymphocytes is associated with elevated intrarenal angiotensin II (Ang II) and the development of hypertension and kidney damage in Dahl salt-sensitive (SS) rats". Experimental Biology Meeting, New Orleans, LA. April 2009.
58. "Renal infiltration of immune cells and salt-sensitive hypertension". DSI-Water and Electrolyte Homeostasis Student and Fellow Awards Symposium. New Orleans, LA. April 2009.
59. "Renal infiltration of immune cells and hypertension". Department of Physiology Seminar Series, Medical College of Wisconsin, Milwaukee, WI. September 2008.
60. "Effects of L-Arginine infusion on Angiotensin II-induced hypertension". Department of Physiology Seminar Series, Medical College of Wisconsin, Milwaukee, WI. October 2007.
61. "L-Arginine transport and nitric oxide production". Department of Physiology Seminar Series, Medical College of Wisconsin, Milwaukee, WI. August 2006.
62. "Molecular basis of obesity". Department of Biological Sciences Seminar Series, St Cloud State University, St Cloud, MN. May 2005.

## Conference Abstracts

1. "Vascular endothelin-1 mediates hyperoxia-induced cellular stress in kidney vessels". AHA Hypertension Scientific Sessions. Boston, MA. September 9, 2023. *Trainees: Sara Biswal, William A. Johnston, Abigail C. Kraus and Gabriel J. Coleman. Selected for oral presentation.*
2. "Time restricted feeding in diet-induced obesity reduces kidney CD8<sup>+</sup> T cells". AHA Hypertension Scientific Sessions. Boston, MA. September 9, 2023. Claudia Edell, Jackson Colson, Paramita Pati, David M. Pollock, **Carmen De Miguel** and Jennifer S. Pollock. **Selected for oral presentation.**
3. "Endothelin-1 and dendritic cells in salt-sensitive hypertension". NIH PRIDE Program Annual Meeting. Bethesda, MD. April 2023.
4. "Sex differences in renal mechanisms of salt-sensitive hypertension". American Physiology Summit 2023. Long Beach, CA. April 2023.
5. "Mentoring is not short-term: Effective continuing mentoring strategies for undergraduate summer short-term summer programs". American Physiology Summit 2023. Long Beach, CA. April 2023.
6. "High Oxygen Exposure Activates the Renal Endothelin System and Induces Extracellular Matrix Deposition". American Society of Nephrology (ASN) Kidney Week. Orlando, FL. *Trainee: Abigail C. Kraus.* November 2022.
7. "Endothelin-1 Receptor B (ET<sub>B</sub>) Deficient Rats Fed High Salt Diet Display Differential Mitochondria-Related Gene Expression in the Kidney Cortex and Outer Medulla". Experimental Biology Meeting, Philadelphia, PA. *Trainee: Brian Soto Miranda.* April 2022. **Selected for oral presentation and awarded the Barbara Horwitz and John M. Horowitz Research Excellence award by the American Physiological Society.**
8. "Necrosis and Sex Differences in Diabetic Kidney Disease – where do we stand today?" Annual Biomedical Research Conference for Minority Students (ABRCMS). *Trainee: María A. Cabrera Echevarría.* November 2021. **Selected for lightning talk and awarded best lightning talk award.**
9. "Vascular Endothelium-Derived Endothelin-1 is Crucial in Promoting the Renal Deposition of Collagen during High Salt Diet". Annual Biomedical Research Conference for Minority Students (ABRCMS). *Trainee: Mingmar Sherpa.* November 2021.
10. "Sex Differences in the Role of Vascular Endothelin-1 in Diabetic Kidney Disease". Annual Biomedical Research Conference for Minority Students (ABRCMS). *Trainee: Sharrell Greene.* November 2021. **Awarded the ABRCMS 2021 poster award - Physiology category.**



11. "Differential Activation of Renal Cell Death Pathways in Diabetic Male and Female Vascular Endothelial Cell ET-1 Knockout Mice", New Trends in Sex and Gender Medicine Conference: 20<sup>th</sup> anniversary. October 2021.
12. "Vascular endothelium-derived endothelin 1 mediates the renal innate and adaptive inflammatory response in male but not female mice on high salt diet". ET-17 International Endothelin conference. *Trainee: Patrick A. Molina*. October 2021.
13. "Time restricted feeding in mice on a chronic high fat diet leads to reduced aortic damage and oxidative stress". 2021 AHA Hypertension Scientific Sessions. October 2021.
14. "Vascular endothelium-derived endothelin 1 promotes salt-induced kidney inflammation in male but not female mice". 2021 AHA Hypertension Scientific Sessions. *Trainee: Patrick A. Molina*. **Selected for oral presentation.**
15. "Sex Differences in the Role of Vascular Endothelin-1 in Diabetic Kidney Disease". 2021 American Association for Laboratory Animal Science (AALAS) National Meeting. *Trainee: Sharrell Greene*. October 2021.
16. "Time Restricted Feeding Reduces Vascular and Renal Damage in Mice on a Chronic High Fat Diet". 2020 ASN Basic Research Forum.
17. "Activation of G Protein-coupled Estrogen Receptor Ameliorates Proteinuria in Dahl Salt-sensitive Female Rats". 2020 ASN Kidney Week.
18. "Vascular endothelium-derived endothelin 1 regulates the renal T cell-macrophage interplay under high salt diet". Experimental Biology 2021. April 2021. Virtual conference. *Trainee: Patrick A. Molina*. **Selected for oral presentation.**
19. "High salt diet promotes immune cell egress from the small intestine to specific peripheral sites". Experimental Biology 2021. April 2021. Virtual conference. *Trainee: Patrick A. Molina*. **Selected for oral presentation.**
20. "Sex differential effects of hyperoxia and thioredoxin reductase-1 inhibition on the kidney endothelin-1 system". AHA Hypertension Scientific Sessions. September 2020. \*Conference held online due to COVID19.
21. "Sex differences in the activation of renal cell death pathways in diabetic vascular endothelial cell ET-1 knockout mice". Experimental Biology Meeting, San Diego, CA. April 2020. Selected for oral presentation - Featured speaker. \*Conference cancelled due to COVID19 – Talk given in the APS Live: EB Featured Topics virtual session held on May 29, 2020.
22. Differential activation of renal cell death pathways in male and female vascular endothelial cell ET-1 knockout mice during diabetes. 16<sup>th</sup> International Conference on Endothelin: Physiology, Pathophysiology and Therapeutics. Kobe, Japan. September 2019. **Selected for oral presentation.**
23. Distinct roles for ET<sub>A</sub> and ET<sub>B</sub> receptors in TH17 differentiation. 16<sup>th</sup> International Conference on Endothelin: Physiology, Pathophysiology and Therapeutics. Kobe, Japan. September 2019. *Trainee: Patrick A. Molina*. **Selected for oral presentation.**
24. Tauroursodeoxycholic Acid (TUDCA) Prevents High Salt-Induced Renal Injury by Reducing Glomerular Permeability to Albumin and Attenuating CD4<sup>+</sup> Cell Inflammation in the Renal Cortex. Experimental Biology 2019, Orlando, FL, April 2019.
25. Sex-Differences in Renal Na<sup>+</sup> Regulatory Mechanisms During Acclimation to a High Salt Diet. Experimental Biology 2019, Orlando, FL. *Trainee: Patrick A. Molina*. April 2019.
26. Renal T<sub>H</sub>17 cells are elevated in humanized sickle cell mice. Experimental Biology 2019, Orlando, FL. *Trainee: Patrick A. Molina*. April 2019.
27. "Loss of ET<sub>B</sub> Receptor Function Activates Inflammasome Signaling Pathways and Dendritic Cells in the Renal Outer Medulla During Type 1 Diabetes". AHA Council on Hypertension 2018 Scientific Sessions, Chicago, IL. September 2018. **Selected for oral presentation and selected as one of the Top 10% abstracts in the American Heart Association Best of Specialty Conferences (Council on Hypertension Scientific Sessions 2018).**
28. "ND-13, a DJ-1-Derived Peptide, Protects Against the Renal Fibrosis and Inflammation Associated With Unilateral Ureter Obstruction". AHA Council on Hypertension 2018 Scientific Sessions, Chicago, IL. September 2018. **Selected for oral presentation.**
29. "Lack of endothelium-derived ET-1 accelerates diabetes-mediated renal damage in female, but not male, mice". Experimental Biology 2018, San Diego, CA. April 2018.
30. "DJ-1 protects against renal mitochondrial oxidative stress and T cell infiltration". Experimental Biology 2018, San Diego, CA. April 2018.

31. "Loss of ET<sub>B</sub> receptor function activates NOD-like receptor and inflammasome signaling pathways in renal outer medulla during type 1 diabetes through an ER stress-independent mechanism". NIDDK Network of Minority Health Research Investigators (NMRI) 16<sup>th</sup> Annual Workshop, Bethesda, MD. April 2018. **Selected as the Best Basic Science abstract, selected for oral presentation and awarded the Exemplary Research Presentation Award.**
32. "Role of UCP2 on mitochondrial dysfunction and blood pressure regulation in the renal oxidative stress-mediated hypertension associated with DJ-1 depletion". AHA Council on Hypertension 2017 Scientific Sessions, San Francisco, CA. September 2017.
33. "New evidence for G protein-coupled estrogen receptor as a natriuretic factor". AHA Council on Hypertension 2017 Scientific Sessions, San Francisco, CA. September 2017.
34. "Early life stress (ELS) induces priming of immune response in kidneys of adult male rats". 6<sup>th</sup> Comprehensive Cardiovascular Center Annual Symposium – Trainee Poster Session, University of Alabama at Birmingham, Birmingham, AL. September 2017.
35. "ET<sub>B</sub> Receptor Dysfunction Leads to Exaggerated Apoptosis and Inflammasome Priming in Renal Outer Medulla during Type 1 Diabetes". 28<sup>th</sup> Annual Vascular Biology and Hypertension Symposium – Annual Trainee Poster Session, University of Alabama at Birmingham, Birmingham, AL. May 2017.
36. "Role of UCP2 on mitochondrial dysfunction in the renal oxidative stress-mediated hypertension associated with DJ-1 depletion". Experimental Biology meeting, Chicago, IL. April 2017.
37. "Potential Role for Renal Nerves in Mediating Hypertension in Male ET<sub>B</sub>-deficient Rats". Experimental Biology meeting, Chicago, IL. April 2017.
38. "ET<sub>B</sub> Receptor Dysfunction Leads to Exaggerated Apoptosis and Inflammasome Priming in Renal Outer Medulla during Type 1 Diabetes". Experimental Biology meeting, Chicago, IL. April 2017.
39. "Tauroursodeoxycholic acid (TUDCA) prevents high salt-induced renal damage in ET<sub>B</sub> deficient rats in a blood pressure-independent manner". 33<sup>rd</sup> UAB Department of Medicine Trainee Research Symposium, Birmingham, AL. March 2017.
40. "Protective role of the endothelin B receptor against the development of tunicamycin-induced renal apoptosis". American Society of Nephrology Kidney Week 2016, Chicago, IL. November 2016.
41. "Loss of ET<sub>B</sub> function activates NOD-like receptor and inflammasome signaling pathways in renal outer medulla during type 1 diabetes through an ER stress-independent mechanism". 27<sup>th</sup> Annual Vascular Biology and Hypertension Symposium – Annual Trainee Poster Session, University of Alabama at Birmingham, Birmingham, AL. October 2016.
42. "Tauroursodeoxycholic acid (TUDCA) prevents high salt-induced renal damage in ET<sub>B</sub> deficient rats in a blood pressure-independent manner". AHA Council on Hypertension 2016 Scientific Sessions, Orlando, FL. September 2016. **Selected for oral presentation.**
43. "Role of UCP2 in the oxidative/nitrosative stress-mediated hypertension associated with DJ-1 depletion". AHA Council on Hypertension 2016 Scientific Sessions, Orlando, FL. September 2016.
44. "Loss of ET<sub>B</sub> function activates NOD-like receptor and inflammasome signaling pathways in renal outer medulla during type 1 diabetes through an ER stress-independent mechanism". 2016 APS Conference: Inflammation, Immunity, and Cardiovascular Disease, Westminster, CO. August 2016.
45. "Loss of ET<sub>B</sub> function activates NOD-like receptor and inflammasome signaling pathways in renal outer medulla during type 1 diabetes through an ER stress-independent mechanism. 7<sup>th</sup> Annual UAB Diabetes Research Day, Birmingham, AL. May 2016.
46. "Endothelial-derived Endothelin-1 distinctly mediates the development of renal apoptosis in male and female mice". Experimental Biology meeting, San Diego, CA. April 2016.
47. "Endothelial-derived Endothelin-1 distinctly mediates the development of renal apoptosis in male and female mice". 32<sup>nd</sup> UAB Department of Medicine Trainee Research Symposium, Birmingham, AL. March 2016. **Selected as Joseph Reeves Award for Excellence in Research by a Postdoctoral Scholar, Honorable Mention.**
48. "Early life stress induces renal pro-inflammatory immune responses". 4<sup>th</sup> Comprehensive Cardiovascular Center Annual Symposium: Inflammation and Cardiovascular Disease – Trainee Poster Session, University of Alabama at Birmingham, Birmingham, AL. October 2015.
49. "Protective role of the endothelin B receptor (ET<sub>B</sub>) against the development of renal apoptosis in response to acute and chronic insults". 26<sup>th</sup> Annual Vascular Biology and Hypertension Symposium – Annual Trainee Poster Session, University of Alabama at Birmingham, Birmingham, AL. September 2015.
50. "Early life stress induces renal pro-inflammatory immune responses". AHA Council on Hypertension 2015 Scientific Sessions, Washington, D.C. September 2015. **Selected for oral presentation and**

- selected as one of the Top 10% abstracts in the American Heart Association Best of Specialty Conferences (Council on Hypertension Scientific Sessions 2015).**
51. "Teen obesity leads to changes in the circulatory T lymphocyte profile". AHA Council on Hypertension 2015 Scientific Sessions, Washington, D.C. September 2015. **Highlighted as a news release in the conference newsletter and picked up by more than 21 national and international medical/science websites.**
  52. "The Endothelin System Mediates Renal Endoplasmic Reticulum Stress and Apoptosis". 14<sup>th</sup> International Conference on Endothelin: Physiology, Pathophysiology and Therapeutics, Savannah, GA. September 2015. **Selected for oral presentation.**
  53. "Evidence that Vascular Endothelial Derived Endothelin-1 Promotes Development of Tunicamycin-Induced Endoplasmic Reticulum Stress in Renal Vessels". Experimental Biology meeting, Boston, MS. March 2015. **Selected for oral presentation.**
  54. "TUDCA Attenuates High Salt-Induced Renal Injury in ET<sub>B</sub> Deficient Rats". Experimental Biology meeting, Boston, MS. March 2015.
  55. "The Endothelin System Mediates Renal Endoplasmic Reticulum Stress Development". 31<sup>st</sup> UAB Department of Medicine Trainee Research Symposium, Birmingham, AL. March 2015.
  56. "Lack of endothelin-1 protects against tunicamycin-induced endoplasmic reticulum (ER) stress in renal vessels". 3<sup>rd</sup> Annual Symposium UAB Comprehensive Cardiovascular Center: Frontiers in Diabetes-Related Cardiovascular Disease – Trainee Poster Session, Birmingham, AL. October 2014.
  57. "Renal Endoplasmic Reticulum (ER) stress is induced *via* Endothelin A (ET<sub>A</sub>) receptor". 25<sup>th</sup> Annual Vascular Biology and Hypertension Symposium – Annual Trainee Poster Session, University of Alabama at Birmingham, Birmingham, AL. September 2014.
  58. "The Role of Endothelin Receptors on high salt-induced renal apoptosis". 25<sup>th</sup> Annual Vascular Biology and Hypertension Symposium – Annual Trainee Poster Session, University of Alabama at Birmingham, Birmingham, AL. September 2014.
  59. "Renal Endoplasmic Reticulum (ER) stress is induced *via* Endothelin A (ET<sub>A</sub>) receptor". International Society of Hypertension New Investigator Symposium, San Francisco, CA. September 2014.
  60. "Renal Endoplasmic Reticulum (ER) stress is induced *via* Endothelin A (ET<sub>A</sub>) receptor". Experimental Biology meeting, San Diego, CA. April 2014. **Selected for oral presentation.**
  61. "Early life stress enhances renal expression of T-cell and B-cell activation factors". Experimental Biology meeting, San Diego, CA. April 2014.
  62. "Combination Therapy of Olmesartan/Exenatide Decreases Renal ER Stress in a Rat Model of Metabolic Syndrome". Experimental Biology meeting, San Diego, CA. April 2014.
  63. "Endothelin-1 is involved in the induction of renal vascular apoptosis *via* CHOP activation". International Society of Nephrology (ISN) Forefronts Symposium: Intrinsic Regulation of Kidney Function, Charleston, NC. March 2014.
  64. "Renal endoplasmic reticulum (ER) stress is induced *via* Endothelin A (ET<sub>A</sub>) receptor activation". 30<sup>th</sup> UAB Department of Medicine Trainee Research Symposium, Birmingham, AL. March 2014.
  65. "Obesity leads to activation of circulating T lymphocytes in female, not male, African American teenagers". 67<sup>th</sup> High Blood Pressure Research Conference, New Orleans, LA. September 2013.
  66. "Thick Ascending Limb-Specific NOS1 Knockout Reduces Urinary Osmolality in Type 1 Diabetes", FASEB Renal Hemodynamics Meeting, Saxtons River, VT. July 2013.
  67. "Thick Ascending Limb-Specific NOS1 Knockout Reduces Urinary Osmolality in Type 1 Diabetes", Experimental Biology meeting, Boston, MS. April 2013.
  68. "Endothelin B receptor protects against endoplasmic reticulum stress-induced renal damage", Experimental Biology meeting, Boston, MS. April 2013. **Selected for oral presentation in WEH Data Diuresis Session.**
  69. "Endothelin B receptor protects against renal endoplasmic reticulum stress". 29<sup>th</sup> Annual Graduate Research Day, College of Graduate Studies, Georgia Regents University, Augusta, GA. March 2013. **Selected for oral presentation at postdoctoral fellow session.**
  70. "Obesity alters the circulating T cell profile in female African American teenagers". 66<sup>th</sup> High Blood Pressure Research Conference, Washington, D.C., September 2012. **Selected as Best Poster Presentation Award by the Trainee Advocacy Committee and Daiichi Sankyo Pharmaceuticals.**
  71. "Obesity alters the circulatory T cell profile in female African American teenagers". 2012 Southern Translational Education and Research Conference (STaR), Augusta, GA. September 2012.

72. "Ethnicity differences in the circulatory immune profile of lean male and female teenagers". 28<sup>th</sup> Annual Graduate Research Day, Georgia Health Sciences University, Augusta, GA. March 2012. **Selected as best poster presentation by a Postdoctoral Fellow.**
73. "T lymphocytes infiltrating the kidneys of Dahl SS rats are activated and differentiated". Experimental Biology Meeting, San Diego, CA. April 2012.
74. "Specific Endothelin A Receptor Blockade Results in Reduced Expression of Endoplasmic Reticulum Stress Proteins in Renal Medulla of Type-1 Diabetic Rats". Experimental Biology Meeting, San Diego, CA. April 2012.
75. "Differences in the circulatory immune profile between lean and obese African American teenagers". 3<sup>rd</sup> Go Red for Women Symposium, Georgia Health Sciences University, Augusta, GA. February 2012.
76. "Specific Endothelin A Receptor Blockade Results in Reduced Expression of Endoplasmic Reticulum Stress Proteins in Renal Medulla of Type-1 Diabetic Rats". 3<sup>rd</sup> Go Red for Women Symposium, Georgia Health Sciences University, Augusta, GA. February 2012.
77. "Specific Endothelin A Receptor Blockade Results in Reduced Expression of Endoplasmic Reticulum Stress Proteins in Renal Medulla of Type-1 Diabetic Rats". Georgia Life Sciences Summit, Atlanta, GA. September 2011.
78. "Mycophenolate Mofetil Prevents Renal Injury in Dahl S Rats on High Fat Diet". 65<sup>th</sup> High Blood Pressure Research Conference, Orlando, FL. September 2011.
79. "Early Life Stress Enhances Circulating T-cell Activation and Renal Inflammatory Markers". Experimental Biology Meeting, Washington, D.C. April 2011.
80. "Mycophenolate Mofetil Reduces Renal T-cell Numbers and Prevents High Fat-Induced Hypertension in Dahl Rats". Experimental Biology Meeting, Washington, D.C. April 2011.
81. "Specific Endothelin A Receptor Blockade Results in Reduced Expression of Endoplasmic Reticulum Stress Proteins in Renal Medulla of Type-1 Diabetic Rats". Georgia Health Sciences University Graduate Research Day, Augusta, GA. March 2011.
82. "Early Life Stress Enhances Circulating T-cell Activation and Renal Inflammatory Markers". Georgia Health Sciences University Graduate Research Day, Augusta, GA. March 2011.
83. "Mycophenolate mofetil reduces renal T-cell numbers and prevents high fat-induced hypertension in Dahl rats". Georgia Health Sciences University Graduate Research Day, Augusta, GA. March 2011.
84. "Adoptive Transfer of Renal Infiltrating T-lymphocytes Increases Blood Pressure and Renal Damage in Dahl Salt-Sensitive (SS) Rats". American Heart Association Scientific Sessions 2010, Best of Specialty Conferences (HBPR 2010), Chicago, IL. November 2010.
85. "Adoptive Transfer of Renal Infiltrating T-lymphocytes Increases Blood Pressure and Renal Damage in Dahl Salt-Sensitive (SS) Rats". 64<sup>th</sup> High Blood Pressure Research Conference, Washington, D.C. October 2010. **Selected for oral presentation.**
86. "High Dietary Protein Exacerbates Hypertension and Renal Damage in Dahl Salt-Sensitive (SS) Rats by Increasing Infiltrating Immune Cells". Experimental Biology Meeting, Anaheim, CA. April 2010. **Selected for oral presentation.**
87. "TNF- $\alpha$  inhibition reduces the development of sodium-sensitive renal disease in rats recovered from ischemia-reperfusion (I/R) injury". Central Society for Clinical Research / Midwestern Section American Federation for Medical Research 2010 Combined Annual Meeting, Chicago, IL. April 2010.
88. "Renal infiltrating T-lymphocytes are associated with increased renal oxidative stress in Dahl Salt Sensitive (SS) hypertension". 63<sup>rd</sup> High Blood Pressure Research Conference, Chicago, IL. September 2009. **Selected for oral presentation.**
89. "Renal infiltration of T-lymphocytes is associated with elevated intrarenal angiotensin II (Ang II) and the development of hypertension and kidney damage in Dahl salt-sensitive (SS) rats". Experimental Biology Meeting, New Orleans, LA. April 2009. **Selected for oral presentation.**
90. "Exogenous L-Arginine blunts Angiotensin II-mediated renal vasoconstriction and improves pressure-diuresis". Experimental Biology Meeting, New Orleans, LA. April 2009.
91. "Motilin stimulates *in vitro* gonadotropin-releasing hormone secretion in female and male rats". 87<sup>th</sup> Annual Meeting of the Endocrine Society, San Diego, CA. June 2005.
92. "Ghrelin effects on growth hormone releasing hormone (GHRH) and somatostatin (SST) secretion in hypothalamic explants". Student Research Colloquium, St Cloud State University, St Cloud, MN. February 2005.

93. "Motilin and gonadotropin-releasing hormone (GnRH) secretion". Student Research Colloquium, St Cloud State University, St Cloud, MN. February 2005.

## Teaching Experience

1. **Lecturer**, "The immune system and the kidney", *Fundamentals of Renal Physiology Course GBS 741*, 3h lecture and small group discussion. Department of Medicine/Nephrology. University of Alabama at Birmingham, AL. October 2023.
2. **Lecturer**, "Body fluids", *Fundamentals of Renal Physiology Course GBS 741*, 3h lecture and small group discussion. Department of Medicine/Nephrology. University of Alabama at Birmingham, AL. September 2023.
3. **Lecturer**, "Mentoring is not short-term: next steps for undergraduate students finishing a summer research program", KCTW, 1h lecture, Kidney Undergraduate Research Experience (KURE) Program. Division of Nephrology, University of Alabama at Birmingham, AL. July 25<sup>th</sup>, 2023.
4. **Lecturer**, "Gross and microscopic anatomy of the kidney", KCTW, 1h lecture, Kidney Undergraduate Research Experience (KURE) Program. Division of Nephrology, University of Alabama at Birmingham, AL. June 6<sup>th</sup>, 2023.
5. **Lecturer**, "Gross and microscopic anatomy of the kidney", PSDO 720, 1h lecture, PRedOctoral PhD and MD research training in TEams (PROmoTE) Program. Section of Cardio-Renal Physiology and Medicine and Graduate Biomedical Sciences, University of Alabama at Birmingham, AL. June 1<sup>st</sup>, 2023.
6. **Lecturer**, "Time management strategies", KURE Mentoring Academy, UAB kidney, Urology, and Non-Malignant Hematology (KUH) undergraduate research experience (KURE). 1h lecture. Division of Nephrology, University of Alabama at Birmingham, AL. March 23 and 24, 2023.
7. **Facilitator**, "Principles of Scientific Ethics", GRD 717, 2 4h in person sessions, University of Alabama at Birmingham, AL. March 2023.
8. **Lecturer**, "Building effective summer undergraduate research projects", KURE Mentoring Academy, UAB kidney, Urology, and Non-Malignant Hematology (KUH) undergraduate research experience (KURE). 1h lecture. Division of Nephrology, University of Alabama at Birmingham, AL. December 15<sup>th</sup>, 2022.
9. **Lecturer**, "Goal setting and motivation with undergraduates", KURE Mentoring Academy, UAB kidney, Urology, and Non-Malignant Hematology (KUH) undergraduate research experience (KURE). 1h lecture. Division of Nephrology, University of Alabama at Birmingham, AL. December 5<sup>th</sup>, 2022.
10. **Lecturer**, "Kidney anatomy and transformational kidney research", KCTW, 1h lecture, Kidney Undergraduate Research Experience (KURE) Program. Division of Nephrology, University of Alabama at Birmingham, AL. June 7<sup>th</sup>, 2022.
11. **Lecturer**, "Kidney anatomy and transformational kidney research", PSDO 720, 1h lecture, PRedOctoral PhD and MD research training in TEams (PROmoTE) Program. Section of Cardio-Renal Physiology and Medicine and Graduate Biomedical Sciences, University of Alabama at Birmingham, AL. June 3<sup>rd</sup>, 2021; May 27<sup>th</sup>, 2022.
12. **Lecturer**, "Diabetic Nephropathy", *Advanced Study of Renal Physiology GBS 732*, 2h lecture. Department of Medicine/Nephrology. University of Alabama at Birmingham, AL. March 29<sup>th</sup>, 2022.
13. **Workshop Instructor**, "Writing a conference abstract", *Research in Residency Program Discussion Series*, 1h lecture and small group discussion. Department of Medicine. University of Alabama at Birmingham, AL. January 2022.

14. **Lecturer**, “The immune system and the kidney”, *Fundamentals of Renal Physiology Course GBS 741*, 3h lecture and small group discussion. Department of Medicine/Nephrology. University of Alabama at Birmingham, AL. October 2021.
15. **Lecturer**, “Body fluids”, *Fundamentals of Renal Physiology Course GBS 741*, 3h lecture and small group discussion. Department of Medicine/Nephrology. University of Alabama at Birmingham, AL. September 2021.
16. **Lecturer**, “Kidney anatomy and transformational kidney research”, KCTW, 1h lecture, Kidney Undergraduate Research Experience (KURE) Program. Division of Nephrology, University of Alabama at Birmingham, AL. June 10<sup>th</sup>, 2021.
17. **Lecturer**, “Kidney anatomy and transformational kidney research”, PSDO 720, 1h lecture, PRedOctoral PhD and MD research training in TEams (PRoMoTE) Program. Section of Cardio-Renal Physiology and Medicine and Graduate Biomedical Sciences, University of Alabama at Birmingham, AL. June 3<sup>rd</sup>, 2021.
18. **Lecturer**, “*Diabetic Nephropathy*”, *Advanced Study of Renal Physiology GBS 732*, 2h lecture. Department of Medicine/Nephrology. University of Alabama at Birmingham, AL. March 23<sup>rd</sup>, 2021.
19. **Lecturer**, “The immune system and the kidney”, *Fundamentals of Renal Physiology Course GBS 741*, 1.5 h lecture. Department of Medicine/Nephrology. University of Alabama at Birmingham, AL. November 2020.
20. **Journal Club facilitator**, *Cardio-Renal Physiology and Medicine Journal Club GBSC 700*. University of Alabama at Birmingham, AL. October 1, 2020; February 18, April 15, and September 9 2021; February 11 2022; March 2023.
21. **Lecturer**, “Keeping a proper laboratory notebook”, *Introduction to research PSDO 200*, 1h lecture (online). Offices of Undergraduate Research and Graduate School, University of Alabama at Birmingham, AL. August 2020.
22. **Workshop Instructor**, “Scientific Communications: Fundamentals of Manuscript Writing”. 1h lecture (online). PRedOctoral PhD and MD research training in TEams (PRoMoTE) Program. Section of Cardio-Renal Physiology and Medicine and Graduate Biomedical Sciences, University of Alabama at Birmingham, AL. June 19<sup>th</sup>, 2020.
23. **Workshop Instructor**, “Manuscript Writing Forum: Where to begin?” 1h lecture (online). Section of Cardio-Renal Physiology and Medicine and Graduate Biomedical Sciences, University of Alabama at Birmingham, AL. April 28<sup>th</sup>, 2020.
24. **Workshop Instructor**, “Lab safety 101”. *UAB Undergraduate Workshop Series – Theme: “Building blocks”*. 1h lecture. Offices of Undergraduate Research and Postdoctoral Education, University of Alabama at Birmingham, AL. October 2<sup>nd</sup>, 2019.
25. **Lecturer**, “*Diabetic Nephropathy*”, *Advanced Study of Renal Physiology GBS 732*, 2h lecture. Department of Medicine/Nephrology. University of Alabama at Birmingham, AL. February 18<sup>th</sup>, 2019.
26. **Workshop Instructor**, “How to write an award-winning scientific abstract”. 1h lecture. *Kidney Undergraduate Research Experience (KURE) Program*, University of Alabama at Birmingham, AL. June 2018; June 2019.
27. **Preceptor**, “*Body Fluids*” and “*Physiology behind clinical cases I and II*”. 1<sup>st</sup> year Medical School Renal Module-small group sessions, PCL 1170. 3 sessions, 3h/each. UASOM Preclerkship Curriculum, University of Alabama at Birmingham, Department of Medicine/Nephrology. May 4<sup>th</sup> and 9<sup>th</sup>, 2018; May 8-15 2019; May 6-12 2020 (online); May 5-12 2021.

28. **Lecturer**, “Renal Inflammation” and “Diabetic Nephropathy”, *Advanced Study of Renal Physiology* GBS 732, 2h lecture/each. Department of Medicine/Nephrology. University of Alabama at Birmingham, AL. April 2<sup>nd</sup> and 9<sup>th</sup>, 2018.
29. **Lecturer**, “Acid-base regulation”, *Fundamentals of Renal Physiology Course* GBS 748, 2.5h lecture and 3h small group discussion. Department of Medicine/Nephrology. University of Alabama at Birmingham, AL. October 9<sup>th</sup>, 2017; October 16<sup>th</sup> and 18<sup>th</sup>, 2018.
30. **Workshop Instructor**, “Lab Basics/Lab safety 101”. *UAB Summer Undergraduate Workshop Series – Theme: “Building blocks”*. 1h lecture. Offices of Undergraduate Research and Postdoctoral Education, University of Alabama at Birmingham, AL. June 7<sup>th</sup>, 2017; June 6<sup>th</sup>, 2018; June 12<sup>th</sup>, 2019; March 4<sup>th</sup>, 2020.
31. **Workshop Instructor**, “Endothelial cell nitric oxide: implications in the clinic”, *Translational Research Immersion Module Program (TRIM)*, Department of Medicine/Nephrology. University of Alabama at Birmingham, AL. January 2017, 2018.
32. **Lecturer**, “Renal consequences of diabetes”, *Advanced Renal Physiology Course*, 2h lecture. Department of Medicine/Nephrology. University of Alabama at Birmingham, AL. November 14<sup>th</sup>, 2016.
33. **Workshop instructor**, *American Physiological Society (APS) Professional Skills Training Online Course: Abstract Writing for Scientific Meetings*. October 15-21, 2015; November 3-8, 2016; November 2017; May 2018.
34. **Workshop instructor**, “Lab basics 101”. 1h lecture. *UAB Office of Undergraduate Research “Map for success” workshop series*. University of Alabama at Birmingham, AL. February and September 2016; February and September 2017; February and September 2018; March 2019.
35. **Workshop instructor**, American Physiological Society (APS) Professional Skills Training Online Course: Creating a Poster for a Scientific Meeting. February 18-24, 2016.
36. **Workshop Instructor**, “How to write a scientific abstract”. 1h lecture. *Summer Cardio-Renal Physiology Undergraduate Research Experience (SeCURE) Program*, University of Alabama at Birmingham, AL. July 2015, May 2016.
37. **Workshop Instructor**, “How to get involved in science”. 1h lecture. *Summer Cardio-Renal Physiology Undergraduate Research Experience (SeCURE) Program*, University of Alabama at Birmingham, AL. July 2014.
38. **Lecturer of Cardiovascular Physiology - Prematriculation Medicine Program**. 3h lecture. *Department of Physiology, Georgia Regents University, GA*. July 2012, 2013.
39. **Laboratory Instructor** (Teaching Assistant). **Medical Physiology for medical students**. “Assessment and analysis of cardiovascular function in the pig and the dog”. *Department of Physiology, Medical College of Wisconsin, WI*. February 2008, 2009.
40. **Laboratory Instructor** (Teaching Assistant). **Medical Physiology for medical students**. “Contractility of visceral and vascular smooth muscle”. *Department of Physiology, Medical College of Wisconsin, WI*. January 2008, 2010.
41. **Laboratory Instructor** (Teaching Assistant). **Medical Physiology for medical students**. “Electrical and mechanical properties of the skeletal muscle”. *Department of Physiology, Medical College of Wisconsin, WI*. January 2007, 2010.
42. **Laboratory Instructor** (Teaching Assistant). **General Biology**. *Department of Biological Sciences, St Cloud State University, MN*. May-June 2005.

43. **Laboratory Instructor** (Teaching Assistant). **Human Physiology**. *Department of Biological Sciences, St Cloud State University, MN.* January-May 2005.
44. **Laboratory Instructor** (Teaching Assistant). **Anatomy and Physiology for pre-nursing students**. *Department of Biological Sciences, St Cloud State University, MN.* January 2004-May 2005.
45. **Laboratory Instructor** (Teaching Assistant). **Women's Biology**. *Department of Biological Sciences, St Cloud State University, MN.* June-July 2004.
46. **Laboratory Instructor** (Teaching Assistant). **Organismal Diversity**. *Department of Biological Sciences, St Cloud State University, MN.* September - December 2003.

## Mentoring committees

### A. Postdoctoral fellows:

1. Anne Ramsey, PhD - UAB
2. Keri Kemp, PhD – UAB
3. Kasi McPherson, PhD – UAB, 2017-2022

### B. Ph.D. Dissertation committees:

1. Abigail J. Brooks – UAB, March 2023- present – PhD advisor.
2. Gillian C. Kelly – UAB, January 2023- present.
3. Jazmine J. Benjamin - UAB, Dissertation Committee Chair, 2020-2023.

### C. Master's thesis committee:

1. Margaret Lloyd – UAB, Thesis Committee Chair, 2021-2022

### D. External thesis examiner:

1. Jordyn M. Thomas – LaTrobe University, Australia. 2021.
2. José Alberto Navarro – Universidad Autónoma de Madrid, Spain. 2020.
3. Carlos Manuel González Casimiro – Universidad de Valladolid, Spain. 2022.
4. Marta Martínez Casales – Universidad Rey Juan Carlos, Spain. 2022.

### E. Undergraduate Honors thesis committee:

1. Abigail Donovan - UAB, Thesis committee member – October 2022- April 2023.

## Students mentored/supervised

### A. Medical students

1. Brian Soto Miranda, June-July 2023, UAB/UCSD O'Brien Center Summer Scholar from Ponce Medical School, Puerto Rico - University of Alabama at Birmingham
2. Abigayle Kraus, September 2020-present, University of Alabama at Birmingham.
3. Risa Kiernan, November 2021 – visiting medical student from the New York Institute of Technology, University of Alabama at Birmingham.
4. William Hamrick, June-July 2017, University of Alabama at Birmingham.
5. Leia Edenfield, May-July 2012, Georgia Regents University.
6. Tyler Cunningham, Medical student, May-July 2011, Georgia Regents University.

### B. Graduate students

1. Abigail J. Brooks, PhD Student, January 2023-present, University of Alabama at Birmingham – primary advisor.
  - a. Awarded: TL1 DK139566-1 KUH PRIME training grant, PI: Gutiérrez, O.
  - b. Awarded: AHA Predoctoral fellowship (24PRE1199652). *Declined due to acceptance of KUH PRIME TL1 award.*
  - c. Awarded: UAB AMC 21 Scholar Program 2022-2023.



2. Maryam Khawar, Non-thesis Master's student, October 2019-January 2020, University of Alabama at Birmingham.
3. Patrick Molina, MD/PhD student, 2017-2022, University of Alabama at Birmingham.
4. Luke Dunaway, Graduate student (2017-2021), University of Alabama at Birmingham.
5. Randee Sedaka, Graduate Student (2014-2020), University of Alabama at Birmingham.
6. Ijeoma Obi, Graduate student (2013-2019), University of Alabama at Birmingham.
7. Jermaine Johnston, Graduate student (2012-2018), University of Alabama at Birmingham.

**c. Undergraduate students**

1. Anmol Guard, September 2023-present, University of Alabama at Birmingham.
2. Malaika Maqbool, August 2022-present, University of Alabama at Birmingham.
3. Jona Pidgett, August 2022-present, University of Alabama at Birmingham.
4. Gabriel Coleman, August 2022-present, University of Alabama at Birmingham.
5. Trisha Sivam, February 2022 - present, University of Alabama at Birmingham.
6. María Alondra Cabrera Echevarría, August 2021-present, Remote undergraduate researcher from University of Puerto Rico, Río Piedras campus.
7. Kayla Bui, October 2021- May 2023, University of Alabama at Birmingham.
8. Sharrell Greene, October 2019 – December 2022, University of Alabama at Birmingham.
9. Madison D'Amico, June 2021- April 2022, University of Alabama at Birmingham.
10. William Johnston, September 2020 - May 2022, University of Alabama at Birmingham.
11. Lilla Stjernstrom, July 2020- April 2022, University of Alabama at Birmingham.
12. Mingmar Sherpa, December 2020-December 2021, University of Alabama at Birmingham.
13. Heather Thorn, July 2020-May 2021, University of Alabama at Birmingham.
14. Quincy Lacy Jr., January 2020-May 2021, University of Alabama at Birmingham.
15. Hannah Northcutt, January 2020-June 2020, University of Alabama at Birmingham.
16. Zoey Sexton, October-December 2019, University of Alabama at Birmingham
17. Aleena George, October 2019-June 2020, University of Alabama at Birmingham
18. Jillian A. Tinglin, 2018-2019, University of Alabama at Birmingham.
19. Priscilla Patel, 2005, St. Cloud State University.
20. Lalita Shrestha, 2005, St. Cloud State University.
21. Olayemi Durosaro, 2004-2005, St. Cloud State University.
22. Vivian Wang, 2004-2005, St. Cloud State University.
23. Christopher Walker, 2004, St. Cloud State University.
24. Anna Meszka, 2004, St. Cloud State University.
25. Lucas Hart, 2003-2004, St. Cloud State University.

**d. Summer undergraduate students**

1. Gabriel Coleman, Summer undergraduate student, May-July 2023, UAB-CORD Blazing to Biomedical Careers Program, University of Alabama at Birmingham.
2. María Alondra Cabrera Echevarría, KURE Undergraduate student, University of Alabama at Birmingham. June-August 2023.
3. Savannah S. Cook, KURE Undergraduate student, University of Alabama at Birmingham. June-August 2022.
4. Gabriel Coleman, Summer undergraduate student, May-July 2022, UAB-CORD Blazing to Biomedical Careers Program, University of Alabama at Birmingham.
5. Mary Odusami, Summer undergraduate student, American Physician Scientists Association Virtual Summer Research (VSRP) program. June-August 2021.
6. María Alondra Cabrera Echevarría, Remote Summer undergraduate student, American Physician Scientists Association Virtual Summer Research (VSRP) program. June-August 2021.
7. Annalisse McKee, KURE Undergraduate student (summer 2021), University of Alabama at Birmingham. June-August 2021.
8. Brian Soto Miranda, KURE Undergraduate student (summer 2021), University of Alabama at Birmingham. June-August 2021.
9. Gabriel Coleman, Summer undergraduate student, May-July 2021, UAB-CORD Blazing to Biomedical Careers Program, University of Alabama at Birmingham.
10. Vianna G. Martinez, KURE summer 2019, University of Alabama at Birmingham.

11. Michelle Sonnenberger, KURE summer 2016, University of Alabama at Birmingham.
12. Iris Montes, KURE summer 2015, University of Alabama at Birmingham.
13. Marco Antonio Rodriguez, KURE summer 2014, University of Alabama at Birmingham.
14. Steven Duval Ruilova, UpSTaRT summer 2013, Georgia Regents University.
15. Brett Glomski, SPUR summer 2010, Medical College of Wisconsin.
16. Jennifer Yeek, SPUR Undergraduate student, summer 2009, Medical College of Wisconsin.
17. Danielle Abraham, SPUR Undergraduate student, summer 2008, Medical College of Wisconsin.
18. Kayla Flores, SPUR Undergraduate student, summer 2007, Medical College of Wisconsin.

**E. Research assistants/Gap year interns**

1. Sara N. Biswal, Research Assistant, September 2019-present, University of Alabama at Birmingham.
2. Yihan Zhong, GAIN Gap year intern, March 2022-May 2023, University of Alabama at Birmingham.
3. Abigayle Kraus, Gap year intern, 2018-2019, University of Alabama at Birmingham.
4. J. Miller Allan, Gap year intern, 2017-2019, University of Alabama at Birmingham.
5. William C. Hamrick, Research Assistant, 2015-2016, University of Alabama at Birmingham.
6. Andrew Abad, Gap year intern, 2014-2015, University of Alabama at Birmingham.
7. Kevin Battles, Gap year intern, 2013-2014, University of Alabama at Birmingham.

**F. High school students**

1. Jimyce Watson, Summer undergraduate student, NIH-STEP-UP Program, June-August 2021.
2. Molly Thomson, High school student, 2008, Medical College of Wisconsin.
3. Serena Clark, High school student, summer 2006, St. Cloud State University.
4. Brianna Brown, High school student, summer 2006, St. Cloud State University.

**G. International virtual mentoring of graduate students**

1. Mario Martín Almeida - *International Mentor Program, International Mentoring Foundation for the Advancement of Higher Education (IMFAHE)*. University of La Laguna, Tenerife, Spain. December 2023-present.
2. Carmen Gallego López - *International Mentor Program, International Mentoring Foundation for the Advancement of Higher Education (IMFAHE)*. Seville University, Seville, Spain. December 2022 - present.
3. Inés Rivero Belenchón – *International Mentor Program, International Mentoring Foundation for the Advancement of Higher Education (IMFAHE)*. Seville University, Seville, Spain. December 2021 – December 2022.
4. Nuria Daghbouche – *International Mentor Program, International Mentoring Foundation for the Advancement of Higher Education (IMFAHE)*. University of Valladolid, Valladolid, Spain. February 2021 – December 2023.
5. Carlos Manuel González Casimiro – *International Mentor Program, International Mentoring Foundation for the Advancement of Higher Education (IMFAHE)*. University of Valladolid, Valladolid, Spain. February 2021 – December 2022.

**H. International virtual mentoring of junior faculty**

1. Caitlynd Myburgh, PhD. International Society of Hypertension (ISH) Mentoring Program. Assistant Professor at The King's University, Alberta, Canada. July 2021-December 2022.
2. Florencia Albertoni Borghese, PhD. Assistant Professor, Department of Pharmacy and Biochemistry, University of Buenos Aires, Argentina. January 2018-present.

**Science Outreach, Mentoring and Other Activities**

1. *Fall UAB Expo Judge*, judging undergraduate research poster session. University of Alabama at Birmingham, AL. December 2023.
2. *Conference mentor, CHAMP (Council on Hypertension Advisory and Mentoring Program)*, AHA Council on Hypertension 2023 Scientific Sessions, Boston, MA. September 2023.

3. *Poster Judge*, Hypertension Scientific Sessions Trainee Poster session, AHA Council on Hypertension 2023 Scientific Sessions. Boston, MA. September 2023.
4. *Summer UAB Expo Judge*, judging undergraduate research poster session. University of Alabama at Birmingham, AL. July 2023.
5. Interviewed by “Behind our science” Podcast of the *American Association of Pathology*. July 21, 2023.
6. *Panelist* –Career Journeys in Nephrology, KUH Pipeline Programs, Division of Nephrology, University of Alabama at Birmingham, AL. June 9<sup>th</sup>, 2023.
7. *Panelist – Workshop*: Peer reviewer’s perspective. NIH PRIDE Program Annual Meeting, Bethesda, MD. April 2023.
8. *Judge*, Posters and Professors, Renal Section, American Physiological Society. 2023 APS Summit, Long Beach, CA. April 2023.
9. *Conference mentor*, “Frank Martin Diversity Travel fellow” mentoring program, American Physiological Society. 2023 APS Summit, Long Beach, CA. April 2023.
10. *Conference mentor* (1 postdoctoral fellow, 1 graduate student), Mentoring on the go Program, Water and Electrolyte Homeostasis section of the American Physiological Society. APS Summit 2023, Long Beach, CA. April 2023.
11. *Judge team leader*, American Physiological Society Undergraduate Research Horwitz/Horowitz Awards. 2023 APS Summit, April 2023.
12. *Poster Judge*, Vascular Biology and Hypertension Annual Symposium. University of Alabama at Birmingham, AL. April 2023.
13. *Judge*, UAB Department of Medicine Trainee Research Day, Birmingham, March 8<sup>th</sup> 2023.
14. *Physiology Understanding (PhUn) Week Coordinator, Organizer and Volunteer* (American Physiological Society), Explaining renal physiology to students in the Spanish elementary school “El Torreón”, Arroyomolinos, Madrid, Spain. February 14 2023.
15. *Panelist – Career Development Session*: Networking and collaborating. Basic Research Forum for Emerging Kidney Scientists, ASN Kidney week 2022. Orlando, FL. November 4<sup>th</sup> 2022.
16. Kidney STARS mentor (5 graduate students + 1 postdoctoral fellow). American Society of nephrology Kidney Week Conference 2022. Orlando, FL. November 2022.
17. *Judge*, UAB Department of Medicine Medical Student Research Day, Birmingham, September 13<sup>th</sup> 2022.
18. *Conference mentor, CHAMP (Council on Hypertension Advisory and Mentoring Program)*, AHA Council on Hypertension 2022 Scientific Sessions, San Diego, CA. September 2022.
19. *Poster Judge*, Hypertension Scientific Sessions Trainee Poster session, AHA Council on Hypertension 2022 Scientific Sessions. San Diego, CA. September 2022.
20. *Conference mentor* (2 postdoctoral fellows, 1 junior faculty member, 2 graduate students), The 2<sup>nd</sup> Acute Kidney Injury Conference: From Bench to Bedside, FASEB conference, Banff, Canada. May 2022.

21. *Poster Judge*, Vascular Biology and Hypertension Annual Symposium. University of Alabama at Birmingham, AL. April 2022.
22. *Spring UAB Expo Judge*, judging undergraduate research poster session. University of Alabama at Birmingham, AL. April 2022.
23. *Conference mentor* (1 postdoctoral fellow, 1 graduate student), Mentoring on the go Program, Water and Electrolyte Homeostasis section of the American Physiological Society. Experimental Biology 2022, April 2022.
24. *Conference mentor* (1 graduate student), Posters and Professors Mentoring program, Renal section of the American Physiological Society. Experimental Biology 2022, April 2022.
25. *Judge*, UAB Department of Medicine Trainee Research Day, Birmingham, March 2<sup>nd</sup> 2022.
26. *Fall UAB Expo Judge*, judging undergraduate research poster session. University of Alabama at Birmingham, AL. December 2021.
27. *Panelist – Engaging with national organizations to grow your network*. Career development panel for Nephrology trainees. National O'Brien Center Kidney Seminar (NOCKS). Virtual. December 2021.
28. *Panelist – Early Career Kidney Conference: Establish your network before you need it*. Basic Research Forum for Emerging Kidney Scientists, ASN Kidney week 2021. Virtual. November 2021.
29. *Conference mentor*, “Frank Martin Diversity Travel fellow” mentoring program, American Physiological Society. New Trends in Sex and Gender Medicine: 20<sup>th</sup> anniversary, APS conference. October 2021.
30. Social Media Ambassador, 2021 AHA Hypertension Scientific Sessions. September 2021.
31. *Panelist – Hypertension Journal Early Career Roundtable: Publishing, reviewing and processing research manuscripts*. 2021 AHA Hypertension Scientific Sessions. Virtual. September 2021.
32. *Panelist – Women in Nephrology Fellow Career Development Panel*, sharing my experience in leadership in different organizations and in my institution. Virtual. September 2021.
33. *Judge*, UAB Postdoc Research Day, judging oral presentations from postdocs at UAB. Virtual. September 21, 2021.
34. *Spring UAB Expo Judge*, judging undergraduate research poster session. University of Alabama at Birmingham, AL. April 2021.
35. *Judge*, UAB Department of Medicine Trainee Research Day, Birmingham, March 3<sup>th</sup> 2021.
36. UAB Kidney Club virtual outreach visit at Booker T. Washington K-8 School, Birmingham, AL. February 2021.
37. *2020 UAB Medical Student Research Day Judge*, judging medical student research poster presentations. University of Alabama at Birmingham, AL. September 2020.
38. *ASN Communities Mentor*, July 2020-present.
39. *Summer UAB Expo Judge*, judging undergraduate research poster session. University of Alabama at Birmingham, AL. July 2019.
40. *Judge*, UAB Department of Medicine Trainee Research Day, Birmingham, March 4<sup>th</sup> 2020.

41. *Judge*, Hypertension Early Career Oral Award Session, AHA Council on Hypertension 2019 Scientific Sessions. New Orleans, LA. September 2019.
42. *Panelist – NIDDK T32 Best Practices Workshop*, sharing my experience as a T32 postdoctoral trainee at UAB. Bethesda, MD. May 2019.
43. *Spring UAB Expo Judge*, judging undergraduate research poster session. University of Alabama at Birmingham, AL. April 2019.
44. *Judge*, oral presentations from finalists for the APS WEH pre- and postdoctoral awards. Experimental Biology. April 2019.
45. *Conference mentor*, “Posters and Professors” Program of the Renal Section, American Physiological Society. Experimental Biology. April 2019, April 2022.
46. *Science Outreach blog post writer*, American Physiological Society PhUn week blog, October 2018.
47. *2018 UAB Medical Student Research Day Judge*, judging medical student research poster presentations. University of Alabama at Birmingham, AL. August 2018.
48. *Travel Scholarship Reviewer for the National Diversity in STEM Conference*, Society for the Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS). 2018, 2019.
49. *Panelist - Careers Panel in the Physiology for Life Sciences Student/Teacher Workshop*, talking to high school students about my scientific career path. Experimental Biology 2018, San Diego, CA. April 2018.
50. *American Physiological Society Undergraduate Horwitz/Horowitz Awards*. Selecting abstracts, leading a team of judges and judging undergraduate students posters at Experimental Biology (EB) April 2018; April 2019.
51. *Conference mentor*, “Mentoring on the Go” Program of the Water and Electrolyte Section, American Physiological Society. Experimental Biology. April 2018, April 2019, April 2021, April 2022.
52. *Conference mentor*, “Minority Travel fellow” mentoring program, American Physiological Society. Experimental Biology. April 2018, April 2019.
53. *Physiology Understanding (PhUn) Week Coordinator, Organizer and Volunteer* (American Physiological Society), helping to spread interest in science, in particular physiology, to students in inner city elementary schools and libraries. Birmingham, AL. 2012-present.
54. *Mentor - 1,000 Girls, 1,000 Futures Mentoring Program*, Global STEM Alliance, New York Academy of Sciences. March 2018-present.
55. *Fall UAB Expo Judge*, judging undergraduate research poster session. University of Alabama at Birmingham, AL. November 2016-present.
56. *2017 UAB Medical Student Research Day Judge*, judging medical student research poster presentations. University of Alabama at Birmingham, AL. November 2017.
57. *AHA Council of Hypertension Scientific Sessions Judge*, trainee/junior faculty session poster judge. September 2017, September 2018, September 2019, September 2022.
58. *Poster judge, NIH 2017 Kidney, Urologic, and Hematologic Diseases (KUH) Undergraduate Research Conference*. Washington, D.C., August 2017.
59. *UAB Kidney Undergraduate Research Experience (KURE) Symposium Organizer and Award Selection Committee Chair*. University of Alabama at Birmingham, AL. July 2017, 2018.

60. *UAB Kidney Undergraduate Research Experience (KURE) Poster Competition Organizer and Judge*. University of Alabama at Birmingham, AL. July 2017.
61. *Summer UAB Expo Judge*, judging undergraduate research poster and oral sessions. University of Alabama at Birmingham, AL. July 2014, 2015, 2016, 2017, 2018, 2019.
62. *Judge of scientific posters at the 2016 Annual Biomedical Research Conference for Minority Students (ABRCMS)*, Tampa, FL. November 2016.
63. *American Physiological Society Special Judge at the Intel International Science and Engineering Fair (ISEF) 2016*, Phoenix, AZ. May 2016. Organizing, selecting and leading a team of local judges and judging high school student's science projects from all over the world.
64. *American Physiological Society Undergraduate David S. Bruce Awards*. Selecting abstracts, organizing, leading a team of judges and judging undergraduate students posters at Experimental Biology (EB) 2015 Boston, MA (April 2015) and EB 2016 San Diego, CA (April 2016).
65. *2016 Central Alabama Regional Science and Engineering Fair (CARSEF) judge*, judging high school student's science projects. University of Alabama at Birmingham, Birmingham, AL. March 2016.
66. *Community outreach program "Science Tuesdays" at Avondale Library*, participating in after school program at the library, bringing 2 hands-on science activities to inner city children. Avondale, AL. February 2016.
67. *Member of Postdoc panel discussion for UAB Neuroscience Roadmap Scholars Program*, sharing postdoctoral experiences and advising graduate students in the program how to choose wisely for an optimal postdoctoral experience. Birmingham, AL. February 2016.
68. *2015 Center for Community Outreach Development (CORD) Summer Research Interns Poster Session Judge*, University of Alabama at Birmingham, Birmingham, AL. July 2015.
69. *American Physiological Society Special Judge at the Intel International Science and Engineering Fair (ISEF) 2015*, Pittsburgh, PA. May 2015. Judging high school student's science projects from all over the world.
70. *Fellow of the New York Academy of Sciences, NEXXT Scholar Program*, mentoring young women scholars interested in the STEM field, with the goal of helping them to pursue STEM degrees and increase the numbers of women in this field. November 2014 – July 2016.
71. *2014 Graduate Biomedical Sciences Spring Poster Session Judge*, University of Alabama at Birmingham, Birmingham, AL. May 2014.
72. *2013 Student Training and Research (STAR) Program Workshop Volunteer*, Georgia Regents University. Explaining how to study diabetic renal damage using histology, immunohistochemistry and microscopy to undergraduate participants. June 2011, May 2013.
73. *2012 Science Fair Judge, Copeland Elementary School, Augusta, GA*. Judging science projects from 2<sup>nd</sup>-5<sup>th</sup> grade students. February 2012.
74. *2011 Physiology Understanding (PhUn) Week Volunteer (American Physiological Society)*, helping to spread interest in science, in particular physiology, to students in elementary schools. Augusta, GA. January 2010 and November 2011.
75. *Online tutoring of students grades K-5 to 10 on how to develop scientific projects for Student Science Fairs*. At [www.sciencebuddies.com](http://www.sciencebuddies.com). January 2006-2012.

76. *Graduate student volunteer at the 8<sup>th</sup> World Congress for Microcirculation*, Milwaukee, WI. August 15-19, 2007.
77. *Student Judge at the 55<sup>th</sup> Central Minnesota Regional Science Fair at St Cloud State University*, MN. Judging scientific projects from high school students. February 2005.
78. *Tutor of Anatomy, Physiology and Biology at the Multicultural Studies Center*, St Cloud State University, MN. October 2004-July 2005.
79. *Instructor in the Scientific Discovery Program for Minority High School Students*, held at St Cloud State University, MN. Instructing high school students to work in a scientific environment, how to perform endocrinology studies and how to present their results to an audience. Summer 2004.