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## CURRICULUM VITAE

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**Name:** Jan Michael Williams      **Date of Appointment to UMC Faculty:** 10/2009

**Title:** Associate Professor

**Contact Address:** University of Mississippi Medical Center  
Department of Pharmacology and Toxicology  
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**Place of Birth:** Frankfurt, Germany

### Education Background:

#### Undergraduate:

1995-1999      Georgia Southern University, Statesboro, Georgia  
Bachelor of Science in Chemistry

#### Professional School of Graduate Study:

2000-2005      Medical College of Georgia, Augusta, Georgia  
Ph.D. Program in Physiology  
Dissertation Advisor: David M. Pollock, Ph.D.

#### Postgraduate Training:

2005-2009      Medical College of Wisconsin, Milwaukee, Wisconsin  
Postdoctoral Fellowship  
Mentor: Richard J. Roman, Ph.D.

### Professional Memberships:

2006-Present      AHA/ASA Professional Member  
2004-Present      American Physiological Society

### Honors and Awards:

2012      Fellow of the American Heart Association  
2014      Excellence in Research Award at the University of Mississippi Medical Center  
2016      Excellence in Research Award at the University of Mississippi Medical Center

### Academic Appointments:

2015-present      Associate Professor, University of Mississippi Medical Center, Department of  
Pharmacology and Toxicology, Jackson, Mississippi (tenure track)  
Dental Pharmacology – Assistant Course Director (2013-present)

- 2009-2015 Assistant Professor, University of Mississippi Medical Center, Department of Pharmacology and Toxicology, Jackson, Mississippi
- 2009-2009 Assistant Professor, Medical College of Wisconsin, Milwaukee, Wisconsin-Department of Physiology (research/non-tenure track)

#### **Non-Faculty Positions:**

- 2007-2009 Technical Consultant, Physiogenix, Milwaukee, Wisconsin
- 2005-2009 Postdoctoral Fellow, Medical College of Wisconsin, Milwaukee, Wisconsin-Department of Physiology
- 2000-2005 Graduate Research Assistant, Medical College of Georgia, Augusta, Georgia
- 2003-2005 Physiology Instructor, Paine College Upward Bound Project, Augusta, Georgia
- 2000 Winder Operator, Procter & Gamble Paper Products Company, Albany, Georgia

#### **Academic and Teaching Experience:**

- 2016-present Medical Pharmacology – Chronic Kidney Disease Case Study
- 2014-present Medical Pharmacology – Small group Cardiovascular Session
- 2013-present Dental Pharmacology - Autonomic Nervous System, Antidiabetic Drugs
- 2013-present Mechanisms of Drug Actions – Cardiovascular Hypertrophy/Diabetic Nephropathy
- 2006-07 MCW Medical School Student Laboratory Exercise – Renal Physiology

#### **Committees:**

- 2015-present AHA Vascular Endothelial Biology – Clinical Peer Review Committee
- 2013-2014 AHA Cardiorenal-Basic Science & Clinical/Translational 3 Peer Review Committee
- 2011-2014 APS Awards Committee
- 2012-2015 University of Mississippi Medical Center Graduate School Alumni Committee

#### **Adhoc Review for Journals:**

- PLOS ONE
- Journal of Hypertension
- Hypertension
- AJP Renal Physiology (member of the Editorial Board)
- AJP Regulatory Integrative Comparative Physiology

#### **Directed Student Learning:**

##### ***Mentor to the Base Pair Program – Murrah High School, Jackson MS***

- 2015-2016 Ashley Szabo-Johnson – Involvement of Endothelin in nondiabetic obesity – University of Southern California
- 2013-2014 Judson Womack – Inflammation during diabetic nephropathy – Davidson University
- 2013-2014 Alyssa Pennington – Role of TNF-alpha in the development of diabetic kidney disease – Jackson State University
- 2012-2013 Brianca Fizer – Gender differences in diabetic nephropathy – University of Mississippi
- 2011-2012 Carlos Rucker – Effects of inhibition of MMP activity on kidney disease associated with diabetes – University of Mississippi
- 2010-2011 Denisha Spire – Characterization of the induction of diabetes in Dahl salt-sensitive rats – Tougaloo College

##### ***Research Advisor to the Summer Undergraduate Research Experience (SURE) Program***

- 2013 Devin Guillory – Jackson State University (Chemistry) – Gender differences in the development of metabolic syndrome associated chronic kidney disease
- 2014-2016 Brianca Fizer – University of Mississippi (Pre-Pharmacy) – Role of dyslipidemia in chronic kidney disease

- 2014-2015 Destene Green – Tuskegee University (Chemistry) – Effects of statin therapy on the development of diabetic nephropathy
- 2016 Alyssa Pennington – Jackson State University (Chemistry) – Treatment with Lisinopril Delays the Early Progression of Proteinuria in a Novel Model of Prepubertal Obesity

***Research Advisor to Undergraduate Students***

- 2012-2015 Denisha Spires – Effects endothelin receptor A (ETA) blockade on the progression diabetes-induced renal disease (graduate student in the Department of Physiology at the Medical College of Wisconsin)

***Dissertation Advisor for the Department of Pharmacology Graduate Students***

- 2012-present Kasi McPherson (Ph.D. candidate)  
*Dissertation title:* Evaluating temporal changes in renal hemodynamics during obesity related kidney disease
- 2010-2014 Dr. Tiffani White  
*Dissertation title:* Role of MMP-2 in the progression of diabetes-induced renal disease (postdoctoral fellow in the Department of Nephrology at Duke University)

***Publications:***

1. Cunningham MW Jr, **Williams JM**, Amaral L, Usry N, Wallukat G, Dechend R, LaMarca B. Agonistic Autoantibodies to the Angiotensin II Type 1 Receptor Enhance Angiotensin II-Induced Renal Vascular Sensitivity and Reduce Renal Function During Pregnancy. *Hypertension*. 2016 Nov;68(5):1308-1313.
2. Bean C, Spencer SK, Bowles T, Kyle PB, **Williams JM**, Gibbens J, Wallace K. Inhibition of T-cell activation attenuates hypertension, TNF $\alpha$ , IL-17, and blood-brain barrier permeability in pregnant rats with angiogenic imbalance. *Am J Reprod Immunol*. 2016 Oct;76(4):272-9.
3. McPherson KC, Taylor L, Johnson AC, Didion SP, Geurts AM, Garrett MR, **Williams JM**. Early development of podocyte injury independently of hyperglycemia and elevations in arterial pressure in nondiabetic obese Dahl SS leptin receptor mutant rats. *Am J Physiol Renal Physiol*. 2016 Oct 1;311(4):F793-F804.
4. Wang X, Johnson AC, Sasser JM, **Williams JM**, Solberg Woods LC, Garrett MR. Spontaneous one-kidney rats are more susceptible to develop hypertension by DOCA-NaCl and subsequent kidney injury compared with uninephrectomized rats. *Am J Physiol Renal Physiol*. 2016 May 1;310(10):F1054-64.
5. Fan F, Chen CC, Zhang J, Schreck CM, Roman EA, **Williams JM**, Hirata T, Sharma M, Beard DA, Savin VJ, Roman RJ. Fluorescence dilution technique for measurement of albumin reflection coefficient in isolated glomeruli. *Am J Physiol Renal Physiol*. 2015 Dec 15;309(12):F1049-59.
6. Kojima N, **Williams JM**, Slaughter TN, Kato S, Takahashi T, Miyata N, Roman RJ. Renoprotective effects of combined SGLT2 and ACE inhibitor therapy in diabetic Dahl S rats. *Physiol Rep*. 2015 Jul;3(7).
7. Morris R, Spencer SK, Kyle PB, **Williams JM**, Harris A, Owen MY, and Wallace K. Hypertension in an animal model of HELLP syndrome is associated with activation of endothelin-1. *Reprod Sci*. 2015 June 30.
8. Gillis EE, **Williams JM**, Garrett MR, Mooney JN, and Sasser JM. The Dahl salt-sensitive rat is a spontaneous model of superimposed preeclampsia. *Am J Physiol Regul Integr Comp Physiol*. 2015 Apr 22.
9. Ge Y, Murphy SR, Fan F, **Williams JM**, Falck JR, Liu R, and Roman RJ. Role of 20-HETE in the impaired myogenic and TGF responses of the Af-Art of Dahl salt-sensitive rats. *Am J Physiol*. 2014 Sept 1;307(5):F509-15.

10. Wang X, Johnson AC, **Williams JM**, White T, Chade AR, Zhang J, Liu R, Roman RJ, Lee JW, Kyle PB, Solber-Woods L, and Garrett MR. Nephron deficiency and predisposition to renal injury in a novel one-kidney genetic model. *J Am Soc Nephrol*. 2014 Oct 27.
11. Westbrook L, Johnson AC, Regner KR, **Williams JM**, Mattson DL, Kyle PB, Henegar JR and Garrett MR. Genetic susceptibility and loss of Nr4a1 enhances macrophage-mediated renal injury in CKD. *J Am Soc Nephrol*. 2014 Nov;25(11):2499-510.
12. Fan F, Sun CW, Maier KG, **Williams JM**, Pabbidi MR, Didion SP, Falck JR, Zhou J, Roman RJ. 20-HETE contributes to the inhibition of K<sup>+</sup> channel activity and vasoconstrictor response to angiotensin II in rat renal microvessels. *PLoS One*. 2013 Dec 4;8(12):e82482.
13. Kojima N, Slaughter TN, Paige A, Kato S, Roman RJ and **Williams JM\***. Comparison of the development diabetic induced renal disease in strains of Goto-Kakizaki rats. *J Diabetes Metabolism*. 2013, S9-004.
14. Mathis KW, Venegas-Pont M, Flynn ER, **Williams JM**, Maric-Bilkan C, Dwyer TM, Ryan MJ. Hypertension in an experimental model of systemic lupus erythematosus occurs independently of the renal nerves. *Am J Physiol Regul Integr Comp Physiol*. 2013 Oct;305(7):R711-9.
15. Slaughter TN, Paige A, Spires D, Kojima N, Kyle PB, Garrett MR, Roman RJ and **Williams JM\***. Characterization of the development of renal injury in type-1 diabetic Dahl salt-sensitive rats. *Am J Physiol Regul Integr Comp Physiol*. 2013 Oct;305(7):R727-34.
16. Murphy S and **Williams JM\***. Impaired renal autoregulation in susceptible models of renal disease. *Current Vascular Pharmacology*. (accepted in May 2013).
17. Kojima N, **Williams JM**, Takahashi T, Miyata N and Roman RJ. Effects of a new SGLT2 inhibitor, Luseogliflozin, on diabetic nephropathy in T2DN rats. *J Pharmacol Exp Ther*. 2013 June;345(3):464-72.
18. Burke M, Pabbidi M, Fan F, Ge Y, Liu R, **Williams JM**, Sarkis A, Lazar J, Jacob HJ and Roman RJ. Genetic basis of the impaired renal myogenic response in FHH. *Am J Physiol Renal Physiol*. 2013 Mar 1;304(5):F565-77.
19. **Williams JM**, Johnson AC, Stelloh C, Dreisbach AC, Franceschini N, Regner KR, Townsend RR, Roman RJ, and Garrett MR. Genetic variants in ARHGEF11 are associated with kidney injury in the Dahl S rat. Hypertension. 2012 Nov;60(5):1157-68.
20. Sawyer RT, Flynn ER, Hutchens ZM, **Williams JM**, Garrett MR and Maric-Bilkan C. Renoprotective effects of C-peptide in the Dahl salt-sensitive rat. *Am J Physiol Renal Physiol*. 2012 Sep;303(6):F893-9.
21. Regner K, Harmon AC, **Williams JM**, Stelloh C, Johnson A, Kyle PB, Lerch-Gaggi A, White SM and Garrett MR. Increased susceptibility to kidney injury by transfer of genomic segment from SHR onto Dahl S genetic background. *Physiological Genomics*. 2012 Jun 18;44(12):629-37.
22. Federik Fernandez M, **Williams JM**, Roman RJ and Nowicki S. Inhibitors of 20-HETE formation attenuate the natriuretic effect of dopamine. *Eur J Pharmacol*. 2012 Jul 5;686(1-3):97-103.
23. Murphy SR, Dahly-Vernon AJ, Dunn KM, Chen CC, Ledbetter SR, **Williams JM** and Roman RJ. Renoprotective effects of anti-TGF- $\beta$  antibody and antihypertensive therapies in Dahl salt-sensitive rats. *Am J Physiol Regul Integr Comp Physiol*. 2012 Jul 1;303(1):R57-69.

24. **Williams JM**, Fan F, Murphy SR, Schreck C, Lazar J, Jacob HJ, and Roman RJ. Role of 20-HETE in the antihypertensive effect of transfer of chromosome 5 from Brown Norway to Dahl Salt-sensitive rats. *Am J Physiol Regul Integr Comp Physiol*. 2012 May 15;302(10):R1209-18.
25. Moreno C, **Williams JM**, Lu L, Liang M, Lazar J, Jacob HJ, Cowley AW, and Richard Roman. Narrowing a region on rat chromosome 13 that protects against hypertension in Dahl S-13BN congenic strains. *Am J Physiol Heart Circ Physiol*. 2011 Apr;300(4):H1530-5.
26. **Williams JM**, North P, Lacy S, Yakes M, Dahly-Vernon A and Roman RJ. Evaluation of metalloprotease inhibitors on hypertension and diabetic nephropathy. *Am J Physiol Renal Physiol*. 2011 Apr;300(4):F983-98.
27. **Williams JM**, Ryan RP, Lazar J, Jacob HJ, and Roman RJ. Temporal characterization of the development of hypertension induced renal injury in FHH and FHH.1<sup>BN</sup> congenic strains. *Am J Physiol Renal Physiol*. 2011 Feb;300(2):F330-8.
28. **Williams JM**, Murphy S, Burke M and Roman RJ. 20-HETE: A new target for the treatment of hypertension. *Journal of Cardiovascular Pharmacology. J Cardiovasc Pharmacol*. 2010 Oct;56(4):336-44.
29. **Williams JM**, Sarkis A, Hoagland KM, Fredrich K, Moreno C, Lopez B, Lazar J, Fenoy FJ, Sharma M, Garrett MR, Jacob HJ, and Roman RJ. Transfer of the CYP4A region of chromosome 5 from Lewis to Dahl S rats attenuates renal injury. *Am J Physiol Renal Physiol*. 2008 Dec;295(6):F1764-77.
30. **Williams JM**, Sharma M, Anjaiah S, Falck JR, and Roman RJ. Role of Endogenous CYP450 Metabolites of Arachidonic Acid in Maintaining the Glomerular Protein Permeability Barrier. *Am J Physiol Renal Physiol*. 2007 Aug;293(2):F501-5.
31. **Williams JM**, Sarkis A, Lopez B, Ryan RP, Flasch AK, and Roman RJ. Elevations in Renal Interstitial Hydrostatic Pressure and 20-HETE Contribute to Pressure Natriuresis. *Hypertension*. 2007. Mar;49:687-94.
32. Elmarakby AA, **Williams JM**, Imig JD, Pollock JS, and Pollock DM. Synergistic actions of enalapril and tempol during chronic angiotensin II-induced Hypertension. *Vascul Pharmacol*. 2007 Feb;46(2):144-51.
33. **Williams JM** and Pollock DM. Renal Endothelin. In: *Handbook of Biologically Active Peptides*, A.J. Kastin, Editor. Elsevier, San Diego, 2006.
34. **Williams JM** and Pollock DM. Contribution of TP Receptors to the Pressor and Intrarenal Hemodynamic Response to ET-1. *Clin Exp Pharmacol Physiol*. 2006 Mar;33(3):253-7.
35. **Williams JM**, Zhao X, Wang MH, Imig JD, and Pollock DM. PPAR-alpha Activation During Chronic ETB Receptor Blockade. *Hypertension*. 2005;46:366-371.
36. **Williams JM**, Pollock JS, and Pollock DM. Arterial Pressure Response to the Antioxidant, Tempol, and ETB Receptor Blockade in Rats on a High Salt Diet. *Hypertension*. 2004;44:1-6.
37. Wingard CJ, Husain S, **Williams J**, and James S. RhoA-Rho kinase mediates synergistic ET-1 and phenylephrine contraction of rat corpus cavernosum. *Am J Physiol Regul Integr Comp Physiol*. 2003 Nov;285(5):R1145-52
38. Elmarakby AA, **Williams JM**, and Pollock DM. Targeting sources of superoxide and increasing nitric oxide bioavailability in hypertension. *Curr Opin Investig Drugs*. 2003 Mar;4(3):282-90. Review.

*\*indicates corresponding author*

## Abstracts:

1. McPherson K, Pennington A, and **Williams JM**. Treatment with Lisinopril Delays the Early Progression of Proteinuria in a Novel Model of Prepubertal Obesity. FASEB J April 2016.
2. McPherson K, Taylor L, Spires D, Johnson A, Guillory D, Garrett MR, and **Williams JM**. Decreased survival rate in female obese leptin receptor mutant Dahl salt-sensitive rats that develop chronic kidney disease. Hypertension Scientific Sessions 2015.
3. McPherson K, Taylor L, Spires D, Szabo-Johnson A, and **Williams JM**. Evaluation of endothelin A receptor (ETA) blockade on the progression of renal injury in various models of metabolic disorders with pre-existing renal disease. Endothelin 14 Meeting 2015.
4. McPherson K, Cornelius D, Thomas D, Taylor L, Spires D, Johnson A, Lamarca B, Garrett MR, and **Williams JM**. Early development of glomerular injury in Dahl salt-sensitive rats with metabolic syndrome independent of diabetes and hypertension. FASEB J April 2015 29:964.8
5. Taylor L, Fizer B, McPherson K, and **Williams JM**. The effects of atorvastatin on the progression of metabolic syndrome associated kidney disease. FASEB J April 2015 29:964.4
6. Spires D, Taylor L, McPherson K, and **Williams JM**. Effects of Endothelin-A Receptor and Angiotensin Converting Enzyme Inhibition on the Development of Progressive Proteinuria in Diabetic Dahl SS Rats with Pre-existing Renal Disease FASEB J April 2015 29:959.8
7. Murphy S, Wu W, White TN, **Williams JM**, Mayoux E, and Roman RJ. Renoprotective effects of empagliflozin in type 1 and type 2 models of diabetic nephropathy with hypertension. (850-P) Diabetes June 2014 63: Supplement 1 A217:850-P.
8. White TN, Spires D, Roman RJ and **Williams JM**. Effects of hyperglycemia and cyclic stretching on MMP-2 and TGF- $\beta$  in rat mesangial cells. (689.8) FASEB J April 2014 28:689.8.
9. McPherson K, White TN, Johnson A, Geurts AM, Jacob HJ, Garrett MR and **Williams JM**. Initial characterization of leptin receptor knockout Dahl salt-sensitive (SS) rats. (1121.2) FASEB J April 2014 28:1121.2.
10. Spires D, White TN, Taylor L and **Williams JM**. Contrasting differences of chronic endothelin A receptor (ETA) blockade during the progression of renal injury in type-1 and type-2 diabetic nephropathy. (689.3) FASEB J April 2014 28:689.3.
11. Slaughter TN, Kojima N, Roman RJ and **Williams JM**. Alterations in renal hemodynamics are associated with increased renal MMP-2 expression during the early phase of diabetic nephropathy. FASEB J 27: 1183.2, 2013.
12. Spires D, Slaughter TN, Taylor L and **Williams JM**. Chronic ETA receptor blockade prevents the progression of renal injury in diabetic Dahl salt-sensitive (SS) rats. FASEB J 27: 702.10, 2013.
13. Gillis E, Mooney J, Roman RJ, **Williams JM** and Sasser JM. Using the T2DN rat as a model to determine therapeutic efficacy of Serelaxin (recombinant human relaxin-2) for Diabetic Nephropathy. FASEB J 27:LB889, 2013.
14. Kojima N, **Williams JM**, Takahashi T, Miyata N and Roman RJ. Renoprotective effects of SGLT2 inhibitor, Luseogliflozin, on the progression of diabetic nephropathy in T2DN rats. Hypertension. 2012;60:A221.

15. Slaughter TN, Paige A, Fan F, Kyle PB, Geurts AM, Howard JJ, Roman RJ and **Williams JM**. Involvement of MMP-2 during the progression of renal disease in diabetic Dahl salt-sensitive rats. *Hypertension*. 2012;60:A55.
16. **Williams JM**, Slaughter TN, Paige A, Chen CC, Fan F, Geurts AM, Howard JJ, Roman RJ. The role of MMP-2 during the development of hypertension-induced renal injury Dahl salt-sensitive rats. *Hypertension*. 2012;60:A347.
17. Slaughter TN, Paige A, Rucker C, Kyle PB, Kojima N, Garrett MR, Roman RJ and **Williams JM**. Temporal characterization of the development diabetic-induced renal disease in strains of Goto-Kakizaki rats. *Hypertension*. 2012;60:134.
18. **Williams JM**, Slaughter TN, Wells A, Rucker C, Spires D, Kyle PB and Roman RJ. Increased MMP-9 activity during the progression of renal injury in Type-2 Diabetic Nephropathy rats. *Faseb J* 26: 687.4, 2012.
19. Slaughter TN, Spires D, Rucker C, Wells A, Kyle PB, Roman RJ and **Williams JM**. The reduction of renal injury in diabetic Dahl salt-sensitive rats with insulin is associated with decreased MMP activity. *Faseb J* 26: 687.3, 2012.
20. **Williams JM**, Wells A, Spires D. The progression of diabetes-induced renal injury in Dahl salt-sensitive rats. *Faseb J* 25: 664.7, 2011.
21. Zhang J, **Williams JM**, Roman RJ. Assessment of changes in glomerular permeability to albumin in rat models of glomerular disease. *Faseb J* 25: 839.8, 2011.
22. Roman RJ, **Williams JM**, Burke M, Juncos J, Renic M, Harder D. Genetic basis of impaired myogenic response and cerebral blood flow autoregulation FHH rats. *Faseb J* 25: 1024.22, 2011.
23. Burke M, Pabbidi MR, **Williams JM**, Liu R, Lazar J, Jacob HJ, Roman RJ. Genetic basis of altered myogenic response and renal injury in FHH rats. *Faseb J* 25: 665.7, 2011.
24. **Williams JM**, Stelloh C, Regner KR, Roman RJ, Garrett MR. Genetic Variants in *Arhgef11* linked to Proteinuria, Renal Hemodynamic Parameters, and GFR in the Dahl Salt-Sensitive Rats *JASN* 21: 732A, 2010.
25. Roman RJ, Liu R, **Williams JM**, Burke M, Lazar J, Jacob HJ. Genetic basis of alterations in renal hemodynamics and the pathogenesis of glomerular disease in FHH rats. Abstracts Renal Hemodynamics Meeting, Saxton River, Vermont, June 2010.
26. **Williams JM**, Lazar J, Jacob HJ, and Roman RJ. Involvement of 20-HETE in salt-sensitive hypertension. *FASEB Summer Conference*, June 2010.
27. Spires D, Roman RJ, and **Williams JM**. Effects of a high fat diet on the progression of renal injury in Dahl S rats. *University of Mississippi Medical Center Research Day*, April 2010.
28. **Williams JM**, Schreck CM, Lazar J, Jacob HJ and Roman RJ. Role of 20-HETE in mediating the antihypertensive effects of transfer of chromosome 5 from Brown Norway rats to Dahl S rats. *12<sup>th</sup> Winter Eicosanoid Conference*, March 2010.
29. **Williams JM**, Schreck CM, and Roman RJ. Early implications of increased matrix metalloprotease-2 and transforming growth factor in the early onset of renal injury in Fawn hooded hypertensive rats. *High Blood Pressure Research Conference*, September 2009.

30. Schreck CM, **Williams JM**, Sharma M, and Roman RJ. Dilutional fluorescent method to measure glomerular albumin reflection coefficient ( $\sigma_{\text{Alb}}$ ) in vitro. *FASEB J* 25: 969.3, 2009.
31. **Williams JM**, Lazar J, Jacob HJ, and Roman RJ. Increased TGF- $\beta$  is associated with the early onset of renal injury in the Fawn Hooded Hypertensive rat. Cardiovascular-Renal Meeting, October 2008.
32. **Williams JM**, Lazar J, Jacob HJ, and Roman RJ. Antihypertensive effects of substitution of chromosome 5 from the BN rat onto the Dahl S genetic background is associated with upregulation of the renal formation of 20-HETE. *High Blood Pressure Research Conference*, September 2008.
33. **Williams JM**, Lazar J, Jacob HJ, and Roman RJ. Temporal characterization of the development of hypertension induced renal injury in FHH and FHH.1BN congenic strains. *High Blood Pressure Research Conference*, September 2008.
34. Roman RJ, **Williams JM**, Moreno C, Lazar J, Cowley AW, Jacob HJ. Narrowing of a region on rat chromosome 13 that protects against the development of hypertension using overlapping Dahl SS.13BN congenic strains. *High Blood Pressure Research Conference*, September 2008.
35. **Williams JM**, Ryan RP, Flasch AK, Lazar J, Jacob HJ, and Roman RJ. The role of CYP450 metabolites of arachidonic acid during the development of glomerular disease in the Fawn-hooded hypertensive Rat. *FASEB Summer Conference Meeting*, July 2007.
36. **Williams JM**, Sharma M, McCarthy ET, and Roman RJ. 20-HETE inhibition disrupts the glomerular protein permeability barrier. *ASN Renal Meeting*, November 2006.
37. Sharma M, **Williams JM**, Reddy DS, Falck JR, Medhora MM, Roman RJ, McCarthy ET, and Savin VJ. Epoxyeicosatrienoic Acids (EETs) contribute to the preservation and protection of the glomerular filtration barrier. *ASN Renal Meeting*, November 2006.
38. **Williams JM**, Sarkis A, Lopez B, Ryan RP, Flasch AK, and Roman RJ. Preventing an increase in RIHP reduces renal 20-HETE levels and inhibits pressure natriuresis. *AHA Council Meeting*, October 2006.
39. **Williams JM** and Pollock DM. Inhibition of TP receptors inhibits the pressor response to ET-1 during ETB receptor blockade. *FASEB J.*, April 2005.
40. **Williams JM**, Zhao X, Wang MH, Imig JD, and Pollock DM. The Effects of Clofibrate on the Hypertension Produced by ETB receptor Blockade in Female Rats. *FASEB J.*, April 2004.
41. **Williams JM**, Pollock JS and Pollock DM. Arterial Pressure Response to the Antioxidant, Tempol, and ET<sub>B</sub> Receptor Blockade in Rats on a High Salt Diet. *FASEB J.*, April 2003.
42. Sasser JM, Sullivan JC, Elmarakby AA, **Williams JM**, Pollock DM and Pollock JS. Reduced NOS3 Phosphorylation and cGMP Production in Mesenteric Arteries of DOCA-Salt Hypertensive Rats. *FASEB J.*, April 2003.
43. **Williams JM**, Pollock JS and Pollock DM. Nitric Oxide Synthase Activity in the Kidneys of Mineralocorticoid Hypertensive Rats. *FASEB J.*, April 2002.
44. Sullivan JC, **Williams JM**, Pollock DM and Pollock JS. Effect of Apocynin on NOS Activity and Expression in Mesenteric Arteries in DOCA-Salt Hypertension. *FASEB J.*, 2002.



**Current Grant Support:**

P20GM104357 (Hall, PI)

9/05/2013 – 4/30/2018

NIH/NIGMS Cardioresenal and Metabolic Disease Center

Project 3 Leader (Williams, PI)

The role of matrix metalloproteinase-2 during the progression of diabetes-induced renal injury

This extramural funding is intended to support salary for laboratory personnel and research supplies.

**Pending Grant Support:**

R01 DK109133-01 (Williams, PI)

4/01/2017 – 3/31/2022

NIH/NIDDK Mechanisms involved in the early development of renal disease associated with prepubertal obesity. This extramural funding is intended to support salary for laboratory personnel and research supplies.

*Score: 10% percentile and an impact factor of 25***Past Grant Support:**

AHA Scientist Development Grant (Williams, PI)

1/01/2012 – 12/31/2015

Discovering new therapies for the treatment of diabetic nephropathy

This extramural funding provides research supply and salary support.

PhRMA Foundation (Williams, PI)

1/01/2011 – 12/31/2011

Matrix Metalloproteinases in Diabetic Nephropathy

This extramural funding is intended to support salary for laboratory personnel and research supplies.

UMMC/IRSP (Williams, PI)

11/01/2010 – 10/31/2011

Mechanisms of Diabetic Nephropathy

This is intramural funding from the University and Mississippi Medical Center that is intended to support only research and supplies.

3PO1 HL029587-27S1 (Cowley, PI)

9/01/2009 - 8/31/2011

NIH/NHLB Blood Pressure: Determinants and Controllers

This is a minority supplement intended to support Dr. Williams toward becoming an independent investigator.

The major goal of this project is to determine the role of diabetes and/or high salt/high fat diet in altering the renal hemodynamics in the progression of hypertension in the Dahl S rats. Role: Assistant Professor

3 R37 HL036279-20S1(Roman, PI)

4/1/06 - 3/31/2009

NIH/NHLBI 20-HETE-TGF-beta in Hypertension-Induced Renal Injury

Research Supplement Grant to Promote Diversity in Health-Related Research.

UNCF Merck Postdoctoral Science Research Fellowship.

2006-2008

20-HETE and TGF- $\beta$  in Hypertension-Induced Renal Injury.

NRSA Predoctoral Fellowship

2004-2005

NIH/NHLBI

The Contributions of Oxidative Stress and TP-R activation in Salt-Sensitive Hypertension.

AHA Predoctoral Fellowship

2002-2004

American Heart Association

Effects of Oxidative Stress on Sodium Balance.