

CURRICULUM VITAE

Caitrin Wheeler McDonough

(Legal Name: Caitrin Wheeler McDonough Rowe)

May 2013

PERSONAL INFORMATION

Business Address: Department of Pharmacotherapy and Translational Research
College of Pharmacy
University of Florida
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Gainesville, FL 32610
(352) 273-6435
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EDUCATION AND TRAINING

Bachelor of Science in Biochemistry, with Honors, Minor in Chemistry, The University of Iowa, Iowa City, Iowa, May 2005

Ph.D. in Molecular Medicine and Translational Science, Wake Forest University School of Medicine, Winston-Salem, North Carolina, May 2010

Advisor: Donald W. Bowden, Ph.D.

Dissertation Research: The Genetics of Type 2 Diabetic End-Stage Renal Disease in African Americans

Postdoctoral Fellowship in Cardiovascular Pharmacogenomics, The University of Florida, Gainesville, Florida, July 2010 to May 2013

Advisor: Julie A. Johnson, Pharm.D.

PROFESSIONAL APPOINTMENTS

2013-present Research Assistant Professor, Department of Pharmacotherapy and Translational Research, College of Pharmacy, The University of Florida, Gainesville, Florida, May 2013 to present

PROFESSIONAL EXPERIENCE

Undergraduate Research Experience, Department of Biochemistry, The University of Iowa, Iowa City, Iowa, 2004-2005

Advisor: Lori L. Wallrath, Ph.D.

Laboratory Assistant, Department of Biochemistry, The University of Iowa, Iowa City, Iowa, 2003-2005
Advisor: Lori L. Wallrath, Ph.D.

PROFESSIONAL MEMBERSHIPS

American Society of Human Genetics, 2007-present

American Society for Clinical Pharmacology and Therapeutics, 2011-present

GRANTS AND CONTRACTS

Source: NIH, National Heart, Lung, and Blood Institute, Loan Repayment Program
Title: "The Identification of Pharmacogenomic Predictors of Adverse Cardiovascular Outcomes in Patients with Hypertension and Coronary Artery Disease"
Time period: July 2012 to June 2014
Role: Award Recipient

Source: NIH, National Institute of Diabetes and Digestive and Kidney Diseases, T32 DK007518
Title: "Pre & Post-Doctoral Training in Nephrology & Hypertension"
Time period: July 2010 to June 2012
Role: Post-Doctoral Fellow (PI: Mark Segal)

HONORS AND AWARDS

3rd Place, University of Iowa Biosciences Undergraduate Poster Competition, September 2004.

1st Place, University of Florida College of Pharmacy 25th Annual Research Showcase, Poster Competition, Post-doctoral Fellow Division, February 2012.

1st Place, University of Florida College of Pharmacy 26th Annual Research Showcase, Poster Competition, Post-doctoral Fellow Division, February 2013.

PUBLICATIONS

Original Articles

1. Freedman BI, Hicks PJ, Sale MM, Pierson ED, Langefeld CD, Rich SS, Xu J, **McDonough C**, Janssen B, Yard BA, van der Woude FJ, Bowden DW. A leucine repeat in the carnosinase gene *CNDP1* is associated with diabetic end-stage renal disease in European Americans. *NDT*. 2007; 22(4):1131-5.

2. **McDonough CW**, Hicks PJ, Lu L, Langefeld CD, Freedman BI, Bowden DW. The influence of carnosinase gene polymorphisms on diabetic nephropathy risk in African-Americans. *Hum Genet.* 2009; 126(2):265-75. [PMC2885788]
3. Schulze SR, Curio-Penny B, Speese S, Dialynas G, Cryderman DE, **McDonough CW**, Nalbant D, Petersen M, Budnick V, Geyer PK, Wallrath LL. A comparative study of *Drosophila* and human A-type lamins. *PLoS One.* 2009; 4(10):e7564. [PMC2762312]
4. **McDonough CW**, Bostrom MA, Lu L, Hicks PJ, Langefeld CD, Divers J, Mychaleckyj JC, Freedman BI, Bowden DW. Genetic analysis of diabetic nephropathy on chromosome 18 in African Americans: linkage analysis and dense SNP mapping. *Hum Genet.* 2009; 126(6):805-817. [PMC2937163]
5. **McDonough CW**, Palmer ND, Hicks PJ, Roh BH, An SS, Cooke JN, Hester JM, Wing MR, Bostrom MA, Rudock ME, Lewis JP, Talbert ME, Blevins RA, Lu L, Ng MC, Sale MM, Divers J, Langefeld CD, Freedman BI, Bowden DW. A genome wide association study for diabetic nephropathy genes in African Americans. *Kidney Int.* 2011; 79(5):563-72. [PMC3056271]
6. Murea M, Lu L, Ma L, Hicks PJ, Divers J, **McDonough CW**, Langefeld CD, Bowden DW, Freedman BI. Genome-wide association scan for survival on dialysis in African-Americans with type 2 diabetes. *Am J Nephrol.* 2011; 33(6):502-9. [PMC3202959]
7. Freedman BI, Langefeld CD, Lu L, Divers J, Comeau ME, Kopp JB, Winkler CA, Nelson GW, Palmer ND, Hicks PJ, Bostrom MA, Cooke JN, **McDonough CW**, Bowden DW. Differential effects of MYH9 and APOL1 risk variants on FRMD3 Association with Diabetic ESRD in African Americans. *PLoS Genetics.* 2011; 7(6):e1002150. [PMC3116917]
8. Palmer ND, **McDonough CW**, Hicks PJ, Roh BH, Wing MR, An SS, Hester JM, Cooke JN, Bostrom MA, Rudock ME, Talbert ME, Lewis JP, DIAGRAM Consortium, MAGIC Investigators, Ferrara A, Lu L, Ziegler JT, Sale MM, Divers J, Shriner D, Adeyemo A, Rotimi CN, Ng MCY, Langefeld CD, Freedman BI, Bowden DW. A Genome-Wide Association Search for Type 2 Diabetes Genes in African Americans. *PLoS ONE.* 2012; 7(1): e29202. [PMC3251563]
9. Karnes JH, **McDonough CW**, Gong Y, Vo TT, Langae TY, Chapman AB, Gums JG, Beitelshes AL, Bailey KR, Del-Aguila JL, Boerwinkle EA, Pepine CJ, Turner ST, Johnson JA, and Cooper-DeHoff RM. Association of *KCNJ1* Variation with Change in Fasting Glucose and New Onset Diabetes during HCTZ Treatment. *Pharmacogenomics J.* 2012. [Epub ahead of print, August 21, 2012]. [PMC3529742]
10. Asselbergs FW, Guo Y, van Iperen EP, Sivapalaratnam S, Tragante V, Lanktree MB, Lange LA, Almqvister B, Appelman YE, Barnard J, Baumert J, Beitelshes AL, Bhangale TR, Chen YD, Gaunt TR, Gong Y, Hopewell JC, Johnson T, Kleber ME, Langae TY, Li M, Li YR, Liu K, **McDonough CW**, Meijis MF, Middelberg RP, Musunuru K, Nelson CP, O'Connell JR, Padmanabhan S, Pankow JS, Pankratz N, Rafelt S, Rajagopalan R, Romaine SP, Schork NJ, Shaffer J, Shen H, Smith EN, Tischfield SE, van der Most PJ, van Vliet-Ostaptchouk JV, Verweij N, Volcik KA, Zhang L, Bailey KR, Bailey KM, Bauer F, Boer JM, Braund PS, Burt A, Burton PR, Buxbaum SG, Chen W, Cooper-Dehoff RM, Cupples LA, DeJong JS, Delles C, Duggan D, Fornage M, Furlong CE, Glazer N, Gums JG, Hastie C, Holmes MV, Illig T, Kirkland SA, Kivimaki M, Klein R, Klein BE, Kooperberg

C, Kottke-Marchant K, Kumari M, Lacroix AZ, Mallela L, Murugesan G, Ordovas J, Ouwehand WH, Post WS, Saxena R, Scharnagl H, Schreiner PJ, Shah T, Shields DC, Shimbo D, Srinivasan SR, Stolk RP, Swerdlow DI, Taylor HA Jr, Topol EJ, Toskala E, van Pelt JL, van Setten J, Yusuf S, Whittaker JC, Zwinderman AH; LifeLines Cohort Study, Anand SS, Balmforth AJ, Berenson GS, Bezzina CR, Boehm BO, Boerwinkle E, Casas JP, Caulfield MJ, Clarke R, Connell JM, Cruickshanks KJ, Davidson KW, Day IN, de Bakker PI, Doevendans PA, Dominiczak AF, Hall AS, Hartman CA, Hengstenberg C, Hillege HL, Hofker MH, Humphries SE, Jarvik GP, Johnson JA, Kaess BM, Kathiresan S, Koenig W, Lawlor DA, März W, Melander O, Mitchell BD, Montgomery GW, Munroe PB, Murray SS, Newhouse SJ, Onland-Moret NC, Poulter N, Psaty B, Redline S, Rich SS, Rotter JI, Schunkert H, Sever P, Shuldiner AR, Silverstein RL, Stanton A, Thorand B, Trip MD, Tsai MY, van der Harst P, van der Schoot E, van der Schouw YT, Verschuren WM, Watkins H, Wilde AA, Wolffenbuttel BH, Whitfield JB, Hovingh GK, Ballantyne CM, Wijmenga C, Reilly MP, Martin NG, Wilson JG, Rader DJ, Samani NJ, Reiner AP, Hegele RA, Kastelein JJ, Hingorani AD, Talmud PJ, Hakonarson H, Elbers CC, Keating BJ, Drenos F. Large-Scale Gene-Centric Meta-analysis across 32 Studies Identifies Multiple Lipid Loci. *Am J Hum Genet.* 2012; 91(5):823-38. [PMC3487124].

11. Gong Y, **McDonough CW**, Wang Z, Cooper-DeHoff RM, Langaee TY, Beitelshes AL, Chapman AB, Gums JG, Bailey KR, Boerwinkle E, Turner ST, Johnson JA. Hypertension susceptibility loci and blood pressure response to antihypertensives – results from the pharmacogenomic evaluation of antihypertensive responses (PEAR) study. *Circ Cardiovasc Genet.* 2012; 5(6):686-91. [PMC3529147].
12. Karnes JH, Langaee TY, **McDonough CW**, Chang SW, Ramos M, Catlin JR, Casanova O, Gong Y, Pepine CJ, Johnson JA, and Cooper-DeHoff RM. Lack of association of the *HMG1* IVS5-13insC variant with type 2 diabetes in an ethnically diverse hypertensive case control cohort. *J Transl Med.* 2013; 11(1):12. [PMC3558451].
13. Ganesh SK, Tragante V, Guo W, Guo Y, Lanktree MB, Smith EN, Johnson T, Castillo BA, Barnard J, Baumert J, Chang YP, Elbers CC, Farrall M, Fischer ME, Franceschini N, Gaunt TR, Gho JM, Gieger C, Gong Y, Isaacs A, Kleber ME, Leach IM, **McDonough CW**, Meijis MF, Mellander O, Molony CM, Nolte IM, Padmanabhan S, Price TS, Rajagopalan R, Shaffer J, Shah S, Shen H, Soranzo N, van der Most PJ, Van Iperen EP, van Setten J, Vonk JM, Zhang L, Beitelshes AL, Berenson GS, Bhatt DL, Boer JM, Boerwinkle E, Burkley B, Burt A, Chakravarti A, Chen W, Cooper-Dehoff RM, Curtis SP, Dreisbach A, Duggan D, Ehret GB, Fabsitz RR, Fornage M, Fox E, Furlong CE, Gansevoort RT, Hofker MH, Hovingh GK, Kirkland SA, Kottke-Marchant K, Kutlar A, Lacroix AZ, Langaee TY, Li YR, Lin H, Liu K, Maiwald S, Malik R; METASTROKE, Murugesan G, Newton-Cheh C, O'Connell JR, Onland-Moret NC, Ouwehand WH, Palmas W, Penninx BW, Pepine CJ, Pettinger M, Polak JF, Ramachandran VS, Ranchalis J, Redline S, Ridker PM, Rose LM, Scharnagl H, Schork NJ, Shimbo D, Shuldiner AR, Srinivasan SR, Stolk RP, Taylor HA, Thorand B, Trip MD, van Duijn CM, Verschuren WM, Wijmenga C, Winkelmann BR, Wyatt S, Young JH, Boehm BO, Caulfield MJ, Chasman DI, Davidson KW, Doevendans PA, Fitzgerald GA, Gums JG, Hakonarson H, Hillege HL, Illig T, Jarvik GP, Johnson JA, Kastelein JJ, Koenig W; LifeLines Cohort Study, März W, Mitchell BD, Murray SS, Oldehinkel AJ, Rader DJ, Reilly MP, Reiner AP, Schadt EE, Silverstein RL, Snieder H, Stanton AV, Uitterlinden AG, van der Harst P, van der Schouw YT, Samani NJ, Johnson AD, Munroe PB, de Bakker PI, Zhu X, Levy D, Keating BJ, Asselbergs FW. Loci influencing blood pressure identified using a cardiovascular gene-centric array. *Hum Mol Genet.* 2013 Jan 8. [Epub ahead of print]. PMID: 23303523.

14. **McDonough CW**, Burbage SE, Duarte JD, Gong Y, Langaee TY, Turner ST, Gums JG, Chapman AB, Bailey KR, Beitelshes AL, Boerwinkle E, Pepine CJ, Cooper-DeHoff RM, Johnson JA. Association of variants in *NEDD4L* with blood pressure response and adverse cardiovascular outcomes in hypertensive patients treated with thiazide diuretics. *Journal of Hypertension*, 2013; 31(4):698-704. PMID: 23353631.
15. **McDonough CW**, Gong Y, Padmanabhan S, Burkley B, Langaee TY, Melander O, Pepine CJ, Dominiczak AF, Cooper-DeHoff RM, Johnson JA. Pharmacogenomic association of non-synonymous SNPs in *SIGLEC12*, *A1BG*, and the Selectin Region and Cardiovascular Outcomes. 2013, *Hypertension, In Press*.
16. Turner ST, Boerwinkle E, O'Connell JR, Bailey KR, Gong Y, Chapman AB, **McDonough CW**, Beitelshes AL, Schwartz GL, Gums JG, Padmanabhan S, Hiltunen TP, Citterio L, Donner KM, Hedner T, Lanzani C, Melander O, Saarela J, Ripatti S, Wahlstrand B, Manunta P, Kontula K, Anna F, Dominiczak AF, Cooper-DeHoff RM, Johnson JA. Genomic Association Analysis of Common Variants Influencing Antihypertensive Response to Hydrochlorothiazide. 2013, *Hypertension, In Press*.
17. Karnes JH, Gong Y, Pacanowski MA, **McDonough CW**, Arwood M, Langaee TY, Pepine CJ, Johnson JA, and Cooper-DeHoff RM. Impact of *TCF7L2* Single Nucleotide Polymorphisms on Hydrochlorothiazide-induced Diabetes. 2012, submitted for publication.
18. **McDonough CW**, Gillis NK, Alsultan A, Chang SW, Kawaguchi-Suzuki M, Lang JE, Shahin MHA, Buford TW, El Roubi NM, Sá ACC, Langaee TY, Gums JG, Chapman AB, Cooper-DeHoff RM, Turner ST, Gong Y, Johnson JA. Atenolol Induced HDL-C Change in the Pharmacogenomic Evaluation of Antihypertensive Responses (PEAR) Study. 2013, submitted for publication.

Abstracts

1. **McDonough CW**, Hicks PJ, Freedman BI, Bowden DW. Genetic evaluation of *CNDP1* and *CNDP2* polymorphisms in Diabetic Nephropathy. *Am J Hum Genet* 81(4) suppl: 2007, 481. Presented as a poster at the 57th Annual Meeting of the American Society of Human Genetics (ASHG), San Diego, CA, October 2007.
2. **McDonough CW**, Hicks PJ, Freedman BI, Bowden DW. Genetic evaluation of *CNDP1* and *CNDP2* polymorphisms in Diabetic Nephropathy. *J Am Soc Nephrol* 18: 2007, 607A. Presented as a poster at the 40th Annual Meeting of the American Society of Nephrology (ASN) – Renal Week 2007, San Francisco, CA, October 2007.
3. **McDonough CW**, Hicks PJ, Freedman BI, Bowden DW. Association of the Carnosinase Genes (*CNDP1* and *CNDP2*) with Diabetic Nephropathy (DN) in African Americans (AA). *J. Am. Soc. Nephrol.* 19: 2008, 132A. Presented as a poster at the 41st Annual Meeting of the American Society of Nephrology (ASN) – Renal Week 2008, Philadelphia, PA, November 2008.
4. **McDonough CW**, Bostrom M, Lu L, Hicks PJ, Langefeld CD, Divers J, Freedman BI, Bowden DW. Identifying Diabetic Nephropathy Genes on Chromosome 18 in African Americans: A Dense SNP Map. *Am. J. Hum. Genet.* 83(5) suppl: 2008, 416. Presented as

a poster at the 58th Annual Meeting of the American Society of Human Genetics (ASHG), Philadelphia, PA, November 2008.

5. Palmer ND, **McDonough CW**, Smith S, Langefeld CD, Divers J, Lu L, Freedman BI, Bowden DW. A Genome-wide Association Study in 1997 African Americans reveals candidate susceptibility loci for Type 2 Diabetes. *Am. J. Hum. Genet.* 85(5) suppl. 2009. Presented as a poster at the 59th Annual Meeting of the American Society of Human Genetics (ASHG), Honolulu, HI, October 2009.
6. **McDonough CW**, Palmer ND, Bostrom MA, Hicks PJ, Lu L, Divers J, Langefeld CD, Freedman BI, Bowden DW. A Genome-Wide Association Study of Diabetic Nephropathy in African Americans. *Am. J. Hum. Genet.* 85(5) suppl. 2009. Presented as a poster at the 59th Annual Meeting of the American Society of Human Genetics (ASHG), Honolulu, HI, October 2009.
7. **McDonough CW**, Palmer ND, Bostrom MA, Hicks PJ, Lu L, Divers J, Langefeld CD, Freedman BI, Bowden DW. A Genome-Wide Association Study (GWAS) of Diabetic Nephropathy (DN) in African Americans (AA). *J. Am. Soc. Nephrol.* 20: 2009, 433A. Presented as a poster at the 42nd Annual Meeting of the American Society of Nephrology (ASN) – Renal Week 2009, San Diego, CA, October 2009.
8. Palmer ND, **McDonough CW**, Langefeld CD, Divers J, Lu L, Freedman BI, Bowden DW. A Genome-wide Association Study in African Americans Reveals Novel Susceptibility Loci for Type 2 Diabetes. *Diabetes.* 59 suppl 1: 2010, A115. Presented as a Presidential Poster at the 70th Annual Scientific Sessions of the American Diabetes Association (ADA). Orlando, FL, June 2010.
9. **McDonough CW**, Palmer ND, Bostrom MA, Hicks PJ, Roh BH, Wing MR, Cooke JN, Hester JM, An SS, Talbert ME, Lu L, Ng MCY, Divers J, Langefeld CD, Freedman BI, Bowden DW. A Genome Wide Association Study for Diabetic Nephropathy Genes in African Americans. *Diabetes.* 59 suppl 1: 2010, A56. Presented as an Oral Platform Presentation at the 70th Annual Scientific Sessions of the American Diabetes Association (ADA). Orlando, FL, June 2010.
10. **McDonough CW**, Palmer ND, Hicks PJ, Bostrom MA, Lu L, Ng MCY, Langefeld CD, Freedman BI, Bowden DW. A Genome-Wide Association Study (GWAS) for Diabetic Nephropathy (DN) genes in African Americans (AA). *J Am Soc Nephrol* 21: 2010, 729A. Presented as a poster at the 43rd Annual Meeting of the American Society of Nephrology (ASN) – Renal Week 2010, Denver, CO, November 2010.
11. Freedman BI, Langefeld CD, Lu L, Divers J, Comeau ME, Kopp JB, Winkler CA, Nelson GW, Palmer ND, Hicks PJ, Bostrom MA, Cooke JN, **McDonough CW**, Bowden DW. Accounting for risk variants in *MYH9* reveals *FRMD3* association with diabetic ESRD in African Americans. *J Am Soc Nephrol* 21: 2010, 728A. Presented as a poster at the 43rd Annual Meeting of the American Society of Nephrology (ASN) – Renal Week 2010, Denver, CO, November 2010.
12. **McDonough CW**, Gong Y, Langae TY, Cooper-DeHoff RM, Pepine CJ, Johnson JA. Association of variants in the Selectin E precursor (*SELE*) with Adverse Outcomes in the INternational VErapamil SR-Trandolapril STudy GENetic Substudy (INVEST-GENES). Presented as an Oral Platform Presentation at the 8th Annual Cold Spring Harbor/Wellcome

Trust meeting on Pharmacogenomics and Personalized Therapy, Cold Spring Harbor, NY. November 2010.

13. Vandell AG, **McDonough CW**, Hou W and Gong Y. GWAS, Expression and Pathway Analyses of Triglyceride Response to Simvastatin Therapy. Presented as an Oral Presentation at the PGRN Statistical Analysis Resources Workshop. Chicago, IL. December 2011.
14. **McDonough CW**, Burkley B, Gong Y, Langaee TY, Pepine CJ, Cooper-DeHoff RM, Johnson JA. Non-synonymous SNPs in *SELE*, *SELP*, and *SIGLEC12* associate with Cardiovascular (CV) Outcomes in the International Verapamil SR-Trandolapril Study Genetic Substudy (INVEST-GENES). *Clin Pharmacol Ther*. 2012; 91 (S1): S20. Presented as a poster at the 113th Annual Meeting of the American Society for Clinical Pharmacology and Therapeutics (ASCPT), National Harbor, MD, March 2012.
15. Karnes JH, **McDonough CW**, Gong Y, Langaee TY, Pepine CJ, Johnson JA, Cooper-DeHoff RM. Alpha adducin-1 (*ADD1*) single nucleotide polymorphism (SNP) associated with new onset diabetes risk with hydrochlorothiazide (HCTZ) therapy in the International Verapamil SR Trandolapril Genetic Substudy (INVEST-GENES). *Clin Pharmacol Ther* 2012; 91 (S1): S21. Presented as a poster at the 113th Annual Meeting of the American Society for Clinical Pharmacology and Therapeutics (ASCPT), National Harbor, MD, March 2012.
16. Gong Y, **McDonough CW**, Wang Z, Cooper-DeHoff RM, Langaee TY, Beitelshes AL, Turner ST, Chapman AB, Gums JG, Bailey KR, Boerwinkle E, Johnson JA. Hypertension susceptibility loci and blood pressure response to antihypertensives – results from the pharmacogenomic evaluation of antihypertensive responses (PEAR) study. *Clin Pharmacol Ther* 2012; 91 (S1): S16. Presented as a poster at the 113th Annual Meeting of the American Society for Clinical Pharmacology and Therapeutics (ASCPT), National Harbor, MD, March 2012.
17. Vandell AG, **McDonough CW**, Langaee TY, Burkley B, Gong Y, Turner ST, Gums JG, Chapman AB, Beitelshes AL, Cooper-DeHoff RM, Johnson JA. Association of FTO with Hydrochlorothiazide (HCTZ)-induced elevation in uric acid (UA) in African American (AA) hypertensives in the Pharmacogenomic Evaluation of Antihypertensive Response (PEAR) study. *Clin Pharmacol Ther* 2012; 91 (S1): S59. Presented as a poster at the 113th Annual Meeting of the American Society for Clinical Pharmacology and Therapeutics (ASCPT), National Harbor, MD, March 2012.
18. Gong Y, Moore MJ, Karnes JH, **McDonough CW**, Wang Z, Langaee TY, Beitelshes AL, Turner ST, Chapman AB, Gums JG, Bailey K, Boerwinkle E, Johnson JA, Cooper-DeHoff RM. Fasting Glucose Loci Associated with Glucose Response to Antihypertensives-Results from the Pharmacogenomic Evaluation of Antihypertensive Responses (PEAR). *Clin Pharmacol Ther* 2013; 93 (S1): S28. Presented as a poster at the 114th Annual Meeting of the American Society for Clinical Pharmacology and Therapeutics (ASCPT), Indianapolis, IN, March 2013.

PRESENTATIONS

Seminars and Invited Presentations

“The effects of weight loss and exercise in humans on poly unsaturated fatty acid levels in serum.” Contemporary Issues in Molecular Medicine, Molecular Medicine Departmental Seminar, Winston-Salem, NC. November 2005.

“Carnosinase 2 (*CNDP2*) and Diabetic end-stage renal disease.” Contemporary Issues in Molecular Medicine, Molecular Medicine Departmental Seminar, Winston-Salem, NC. March 2006.

“The search for diabetic end-stage renal disease genes on chromosome 18: *CNDP1*, *CNDP2*, and *BCL2*.” Contemporary Issues in Molecular Medicine, Molecular Medicine Departmental Seminar, Winston-Salem, NC. February 2007.

“The search for diabetic end-stage renal disease genes on chromosome 18: a dense SNP map.” Contemporary Issues in Molecular Medicine, Molecular Medicine Departmental Seminar, Winston-Salem, NC. February 2008.

“The search for diabetic end-stage renal disease genes on chromosome 18: candidate gene analysis and Dense SNP mapping.” Contemporary Issues in Molecular Medicine and Translational Science, Molecular Medicine and Translational Sciences Departmental Seminar, Winston-Salem, NC. October 2008.

“The search for type 2 diabetic end-stage renal disease genes: candidate gene analysis, dense SNP mapping, and a genome wide association study.” Translational Science Seminar Series, Molecular Medicine and Translational Sciences Departmental Seminar, Winston-Salem, NC. September 2009.

“The Genetics of Type 2 Diabetic End-Stage Renal Disease in African Americans.” Ph.D. Defense Seminar. Wake Forest University Graduate School of Arts and Sciences. Winston-Salem, NC. April 2010.

“The Genetics of Type 2 Diabetic End-Stage Renal Disease in African Americans.” University of Iowa Gene Lata Biochemistry Undergraduate Honors Symposium. Invited Speaker. Iowa City, IA. April 2011.

“The Application of Genetic Risk Scores in Antihypertensive Pharmacogenomics: Essential for Future Clinical Translation.” The Pharmacogenetics Research Network (PGRN) – Research In Progress Series, National Webinar. Presented with Yan Gong, PhD. October 2012.

Continuing Education Presentations

“Pharmacogenetic Predictors of Adverse Cardiovascular Outcomes in Hypertension and Coronary Artery Disease.” Pharmacotherapy and Translational Research Department Seminar with CE. University of Florida, College of Pharmacy. Gainesville, FL. February 2011.

“Pharmacogenetic Predictors of Blood Pressure Response and Adverse Cardiovascular Outcomes in Hypertension.” Pharmacotherapy and Translational Research Department Seminar with CE. University of Florida College of Pharmacy. Gainesville, FL. February 2012.

“Pharmacogenomic Predictors of HDL Response to Atenolol: A Group Research Project as a Teaching Tool.” Pharmacotherapy and Translational Research Department Seminar with CE. University of Florida College of Pharmacy. Gainesville, FL. December 2012.

PROFESSIONAL SERVICE

Manuscript Reviewer, PLoS One

UNIVERSITY SERVICE

Wake Forest University

Student Representative, Molecular Medicine Recruitment Committee, 2005-2006

Volunteer, MMARS (Matching Matriculates and Returning Students), 2006-2008

Volunteer, North Carolina DNA Day, 2008-2009

Student Representative, Molecular Medicine Curriculum Committee, 2009-2010

University of Florida

Coordinator, Pharmacotherapy and Translational Research Journal Club, 2011-2012

TEACHING

Wake Forest University

MOGN 734 – Human Molecular Genetics

2007: Teaching Assistant. Graduate class, size: ~10 students.

University of Florida

PHA 5113 – Personalized Medicine

2010: Course lecturer on principles of genetic medicine.

2011-2012: Course lecturer on principles of genetic medicine and database tools for genetic medicine. PharmD class, size: ~270-300 students.

Research Elective Clerkship in Cardiovascular Pharmacogenomics– course number varies by month

2010-present: Discussion leader – Genome wide association studies and applications to pharmacogenomics.

2011-2012: Assist clerkship students with their journal club presentations.

PHA 6449 – Pharmacogenomics

2012: Course lecturer on web tools and databases, and controlling for population structure in genetic association analysis. Assisted in coordinating student projects, answering student questions on data analysis for projects, and oral presentation grading. Graduate class, size: 7 students.

PHA 6427 – Pharmacogenetics of Drug Metabolism and Transport

2012: Course lecturer on principles of genetic medicine and genetic/pharmacogenetic databases. Graduate class, size: 14 students.

BMS 6828 & 6829 – Interdisciplinary Family Health I and II

2012-2013: Small group facilitator. Class size: ~12 students.

Mentorship of Students

- 2011 Roger Hart, Undergraduate. Howard Hughes Science for Life Summer Research Program. Project Title: Association of Variants in *MCM6*, Lactose Intolerance, and Blood Pressure Response to Atenolol and HCTZ.
- 2011 Sarah Burbage, PharmD student. Pharmacotherapy and Translational Research Summer Research Training Program and subsequent Research Elective. Project Title: *NEDD4L* variation associates with hydrochlorothiazide response in hypertensive patients.
- 2012 Anne Lucas, PharmD student. Pharmacotherapy and Translational Research Summer Research Training Program and subsequent Research Elective. Project Title: Expression Analysis of Novel Genes Associated with HCTZ-induced Hyperuricemia.
- 2013 Nihal El Roubi, Graduate student. Lab Rotation. Project Title: Expression Analysis of *FTO* in the Pharmacogenomic Evaluation of Antihypertensive Responses (PEAR) Study.
- 2013 Carol Ana Sa, Graduate student. Lab Rotation. Project Title: Expression Analysis of *GALNT2* in the Pharmacogenomic Evaluation of Antihypertensive Responses (PEAR) Study.