

BIOGRAPHICAL SKETCH

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|--|--|-------|------------------------|
| NAME Rhonda M. Cooper-DeHoff, Pharm D, MS | POSITION TITLE Associate Professor | | |
| eRA COMMONS USER NAME (credential, e.g., agency login) RMDEHOFF | | | |
| EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)</i> | | | |
| INSTITUTION AND LOCATION | DEGREE <i>(if applicable)</i> | MM/YY | FIELD OF STUDY |
| University of California, San Diego | BA | 06/82 | Biology |
| University of California, San Francisco | Pharm D | 06/86 | Pharmacy |
| University of California, San Francisco | Residency | 06/87 | Clinical Pharmacy |
| University of Florida | Masters | 05/07 | Clinical Investigation |

A. Personal Statement Dr Cooper-DeHoff is an expert in clinical pharmacology, pharmacogenomics and clinical trials, with particular focus in the area of hypertension and antihypertensive drugs – both blood pressure response and adverse metabolic responses. She has particular expertise in the pharmacogenomics of thiazide diuretics and beta-blockers. She has had funding and numerous publications in the areas of response and adverse response and pharmacogenomics associations of antihypertensive drugs. She has trained / is currently training 3 junior faculty, 3 postdoc and 8 graduate students. She also mentors clerkship students as well as 2-3 students per summer in our 10 week pharmacy student research internship program. One of her graduate students received the support on the inaugural TL1 program within the CTSI. Additionally, she teaches Human Subjects Research Ethics and Regulation in our graduate master's program and she also lectures in a graduate level hypertension course. Her strong background and training in pharmacology, pharmacotherapy and research allows her to serve as a faculty on this training grant as well as mentor students on this training grant.

B. Positions and Honors

EXPERIENCE:

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| 1987-1999 | Coordinator, Investigational Drug Service Shands Hospital at the University of Florida, Department of Pharmacy Services |
| 1997-2003 | Director, INVEST Pharmacy Coordinating Center University of Florida Division of Cardiovascular Medicine |
| 1999-2008 | Research Assistant Professor Associate Director, Clinical Trials Program University of Florida Division of Cardiovascular Medicine |
| 2008-2009 | Research Associate Professor University of Florida Division of Cardiovascular Medicine |
| 2009-Present | Associate Professor with Tenure University of Florida Department of Pharmacotherapy and Translational Research |
| 2013-Present | Associate Director, Center for Pharmacogenomics University of Florida |

HONORS

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| 2001 | Young Investigator Award – American Heart Association |
| 2007 | Fellow – American Heart Association, Council for High Blood Pressure Research |
| 2008 | Clinical Science Award – The Consortium for Southeastern Hypertension Control |
| 2009 | Featured Poster Award – American Society of Hypertension |
| 2010 | Fellow – American College of Cardiology |
| 2011 | Top Population Science Paper, Hypertension (American Heart Association journal) |
| 2011 | Drug Therapy Research Award – American Society of Healthcare System Pharmacists |
| 2011 | Outstanding Paper of the Year Award – Cardiology Practice Research Network, American College of Clinical Pharmacy |

C. Selected Peer-reviewed Publications

Most relevant to the current application

1. **Cooper-DeHoff RM**, Handberg E, Heissenberg, C, Johnson, K. Electronic prescribing via the internet for a coronary artery disease and hypertension megatrial. *Clin Cardiol* 2001;24(11):V14-V16.
2. Pepine CJ, Handberg EM, **Cooper-DeHoff RM**, Marks RG, Kowey P, Messerli FH, Mancina G, Cangiano JL, Garcia-Barreto D, Keltai M, Erdine S, Bristol HA, Kolb HR, Bakris GL, Cohen JD, Parmley WW. A calcium antagonist vs. a non-calcium antagonist hypertension treatment strategy for patients with coronary artery disease. The INternational VErapamil-Trandolapril STudy (INVEST). *JAMA* 2003;290(21):2805-2816.
3. Karnes JH, **Cooper-DeHoff RM**. Antihypertensive Medications: Benefits of BP Lowering and Hazards of Metabolic Effects. *Exp Rev of Card Ther* 2009, 7:689-702.
4. **Cooper-DeHoff RM**, Wen S, Beitelshes AL, Zineh I, Gums JG, Turner ST, Gong Y, Hall K, Parekh V, Chapman AB, Boerwinkle E, Johnson JA. Impact of Abdominal Obesity on Incidence of Adverse Metabolic Effects Associated with Antihypertensive Medications. *Hypertension*, 2010;55:61-68.
5. **Cooper-DeHoff RM**, Gong Y, Handberg EM, Bavry AA, Denardo SJ, Bakris GL, Pepine CJ. Tight Blood Pressure Control and Cardiovascular Outcomes Among Hypertensive Patients with Diabetes and Coronary Artery Disease. *JAMA*. 2010;304:61-68.
6. Wikoff WR, Frye RF, Zhu H, Gong Y, Boyle S, Churchill E, **Cooper-Dehoff RM**, Beitelshes AL, Chapman AB, Fiehn O, Johnson JA, Kaddurah-Daouk R. Pharmacometabolomics reveals racial differences in response to atenolol treatment. *PLoS One*. 2013;8(3):e57639. doi: 10.1371/journal.pone.0057639. Epub 2013 Mar 11.
7. 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, Dominiczak AF, **Cooper-Dehoff RM**, Johnson JA. Genomic association analysis of common variants influencing antihypertensive responses to hydrochlorothiazide. *Hypertension* 2013;62:391-397.
8. Gong Y, McDonough CW, Beitelshes AL, O'Connell JR, Karnes JH, Turner ST, Chapman AB, Gums JG, Bailey KR, Boerwinkle E, Johnson JA, **Cooper-DeHoff RM**. PROX1 Gene Variant is Associated with Glucose Change after Antihypertensive Treatment. *Pharmacotherapy* 2014 Feb;34(2):123-30.
9. **Cooper-DeHoff RM**, Hou W, Weng L, Baillie RA, Beitelshes AL, Gong Y, Shahin MH, Turner ST, Chapman A, Gums JG, Boyle SH, Zhu H, Wikoff WR, Boerwinkle E, Fiehn O, Frye RF, Kaddurah-Daouk R, Johnson JA Is a Diabetes-Linked Amino Acid Signature Associated with Beta Blocker-Induced Impaired Fasting Glucose? *Circ Cardiovasc Genetics*. 2014; 7(2):199-205.

Additional recent publications of importance to the field (in chronological order)

1. **Cooper-Dehoff RM**, Cohen JD, Bakris GL, Messerli FH, Erdine S, Hewkin AC, Kupfer S, Pepine CJ. Predictors of Development of Diabetes Mellitus in Patients with Coronary Artery Disease Taking Antihypertensive Medications (Findings from the INternational VErapamil SR-Trandolapril STudy [INVEST]). *Am J Cardiol* 2006, 98:89-894.
2. Smith SM, Gong Y, Turner ST, **Cooper-DeHoff RM**, Beitelshes AL, Chapman AB, Boerwinkle E, Bailey K, Johnson JA, Gums JG. Blood Pressure Responses and Metabolic Effects of Hydrochlorothiazide and Atenolol. *Am J Hypertens*. 2012;25:359-365.
3. **Cooper-DeHoff RM**, Bird ST, Nichols GA, Delaney JA, Winterstein AG. Antihypertensive Drug Class Interactions and risk for Incident Diabetes; a Nested Case Control Study. *Journal of the American Heart Association*, 2013, in press.
4. McDonough CW, Gong Y, Padmanabhan S, Burkley B, Langae 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. *Hypertension*. 2013. [Epub ahead of print, May 20, 2013]
5. Del-Aguila JL, Beitelshes AL, **Cooper-Dehoff RM**, Chapman AB, Gums JG, Bailey K, Gong Y, Turner ST, Johnson JA, Boerwinkle E. Genome-wide association analyses suggest NELL1 influences adverse metabolic response to HCTZ in African Americans. *Pharmacogenomics J*. 2014;14(1):35-40
6. Smith SM, Huo T, Delia Johnson B, Bittner V, Kelsey SF, Vido Thompson D, Noel Bairey Merz C, Pepine CJ, **Cooper-DeHoff RM**. Cardiovascular and Mortality Risk of Apparent Resistant Hypertension in Women

With Suspected Myocardial Ischemia: A Report From the NHLBI-Sponsored WISE Study. J Am Heart Assoc. 2014 Feb 28;3(1):e000660. Epub ahead of print.

D. Research Support

- U01 HG007269 (PI-Johnson) 5/1/2013 - 4/30/2017
NIH, National Human Genome Research Institute
Genomic Medicine Implementation: The Personalized Medicine Program
This grant will allow for expansion of the clinical implementation of pharmacogenetic information to guide treatment decisions at UF Health.
- NIH-NIGMS-2U01 GM074492 (M-PIs Cooper-DeHoff and Cooper-DeHoff) 8-1-2010 – 7-31-2015
Pharmacogenomic Evaluation of Antihypertensive Responses (PEAR)
We propose an expansive approach to antihypertensive pharmacogenomics, whereby we will discover and replicate genetic determinants of the intermediate phenotypes of antihypertensive drug effects, namely BP lowering and adverse metabolic effects, along with the longer term clinical outcomes, namely death, myocardial infarction, stroke and development of diabetes.
- HHSN268201100004C (PI-Limacher) 10/1/10 – 9/30/15
NIH, NHLBI, through a contract with Wake Forest University
Women's Health Initiative Extension 2010-2015
Extended follow-up of the WHI Clinical Trials and Observational Study with additional emphasis on cardiovascular outcomes.
- UF CTSI 1/2014-01/2015
Clinical Research Pilot Award: PI Cooper-DeHoff RM
The Effect of Low Furanocoumarin Grapefruit Hybrid Juice Consumption on Midazolam Pharmacokinetics
- South East Center for Integrative Metabolomics 6/2014-6/2016
Pilot and Feasibility Project Award: PI Cooper-DeHoff, RM
A targeted pharmacometabolomic investigation of the acylcarnitine pathway and incident impaired fasting glucose.
- Completed Research**
- NIH (NHLBI) K23HL086558-01 2/07 – 2/2013
(PI: Cooper-DeHoff) "Metabolic Effects of Antihypertensive Drugs"
The major hypothesis of this study is that in patients with metabolic syndrome and HTN, blockade of the renin-angiotensin system (RAS) with an angiotensin converting enzyme (ACE) inhibitor attenuates the adverse metabolic effects of a thiazide diuretic.
- University of Florida, Clinical and Translational Science Institute. 10/2008-3/2011
(PI: Cooper-DeHoff) PPAR γ Expression in Key Metabolic Organ Systems is Modulated by Treatment with Thiazide Diuretics and ACE Inhibition.
- University of Florida, Clinical and Translational Science Institute. 10/2008-10/2011
(PI: Cooper-DeHoff) PPAR γ Expression in Key Metabolic Organ Systems is Modulated by Treatment with Thiazide Diuretics and ACE Inhibition.