

Yan Gong

Address and Telephone

University of Florida
Department of Pharmacy Practice
PO Box 100486
Gainesville, FL 32610-0486
Tel: (352) 273-6297
Fax: (352) 273-6121

Present Position Research Assistant Professor

Education

- 1991-1995 West China University of Medical Sciences, Chengdu, Sichuan, P.R.CHINA
- 1996 – 1999 Master of Science in Pharmaceutics, West China University of Medical Sciences, Chengdu, Sichuan, P.R. CHINA
- 2001 – 2003 Master of Statistics, University of Florida, Gainesville, FL, USA
- 1999 – 2004 Ph.D in Pharmaceutics, University of Florida, Gainesville, FL, USA

Academic Positions/Employment

- 2005 – Present Research Assistant Professor, University of Florida, College of Pharmacy, Department of Pharmacotherapy and Translational Research, Gainesville, FL
- 2004-2005 University of Florida College of Pharmacy, Cardiovascular Pharmacogenomics Fellow, Department of Pharmacy Practice. Mentor: Julie A. Johnson, Pharm.D.
- 1999 –2004 Teaching Assistant, Department of Pharmaceutics, University of Florida, Gainesville, FL.
- 1996-1999 Teaching Assistant, School of Pharmacy, West China University of Medical Sciences, Chengdu, Sichuan, P.R.CHINA

Honors and Awards

Travel Award, American Association of Pharmaceutical Scientist, 2003
Oral finalist, Research Showcase, University of Florida College of Pharmacy, 2004

Scholar-in-training Travel Award, Pharmacogenetics Research network, 2005
Best Poster, American Society of Clinical Pharmacology and Therapeutics, 2005
Presidential Trainee Award Winner, American Society for Clinical Pharmacology and Therapeutics, 2006

Professional Societies and Organizations

2001 - present	Member, American Association of Pharmaceutical Scientists
2004 - present	Member, American Society of Clinical Pharmacology and Therapeutics
2005 - present	Member, American Heart Association
2006 - present	Member, International Society of Genetic Epidemiology

Research Support

R01 HL074730 (PI: J.A. Johnson) September 2008- August 2009
NIH/NHLBI

“Hypertension pharmacogenetics”

The aims of this study are to: 1) Determine SNPs in five genes relevant to calcium regulation and the calcium channel blocker response; 2) Determine *in vitro* functional consequences of discovered polymorphisms; 3) Determine association between sequence variability in relevant genes and antihypertensive response to verapamil; 4) Determine associations between genotype and outcomes (death, myocardial infarction, stroke) for patients taking atenolol, verapamil, trandolapril and hydrochlorothiazide; 5) Determine the role of assessing population stratification and ancestral proportions using genetic markers in pharmacogenetic studies.

Role: Co-investigator

U01 GM074492 (PI: J.A. Johnson) September 2005 – August 2010
NIH/NIGMS

“Pharmacogenomic Evaluation of Antihypertensive Response (PEAR)”

The aims of this study are to: identify genetic predictors of the antihypertensive and adverse metabolic responses to a β -blocker (atenolol) and a thiazide diuretics (HCTA), first by testing 7 SNPs in each of 70 candidate genes for genetic association with: antihypertensive responses to monotherapy (Aim 1a), addition of a second drug to monotherapy (Aim 1b), and combination therapy (Aim 1c); and adverse metabolic responses to mono and combination therapy (Aim 1d). Aim 2 seeks to identify genetic associations with these same responses through testing of 20,000 putative functional SNPs that span the human genome.

Role: co-investigator

R-238 (PI: Joseph Katz) September 2008 - September 2010
Micromedic Technologies

“Pharmacogenetics, pharmacokinetics and bone markers

Pharmacogenomics study of Bisphosphonate-Associated Osteonecrosis of the Jaw (BONJ) “

Teaching

Pharmacogenomics, PHX 6449, 1.5 hour lecture, Spring 2008.

Interdisciplinary Family Health I (BMS 6828), Fall 2008, Spring 2009.

Original Publications

Sullivan S, **Gong Y**, Hughes JA. Cationic liposomes in gene delivery. *Liposomes, a practical approach, second edition*. Oxford University Press; 2002:289-301.

Klein RL, Hamby ME, **Gong Y**, Hirko AC, Wang S, Hughes JA, King MA, Meyer EM. Dose and promoter effects of adeno-associated viral vector for green fluorescent protein expression in the rat brain. *Exp Neurol*. 2002;176:66-74

Gong Y, Chen SZ, Sonntag CF, Sumners C, Klein RL, King MA, Hughes JA, Meyer EM. Recombinant adeno-associated virus serotype 2 effectively transduces primary rat brain astrocytes and microglia. *Brain Research Protocols*. 2004;14:18-24

Gong Y, Wang Z, Liu T, Zhao W, Zhu Y, Johnson JA, Wu R. A statistical model for functional mapping of quantitative trait loci regulating drug response. *Pharmacogenomics J*. 2004;4:315-321

Gong Y, Meyer EM, Meyers CA, Klein RL, King MA, Hughes JA. Memory-related deficits following selective hippocampal expression of swedish mutation amyloid precursor protein in the rat. *Experimental Neurology*. 2006;200:371-377

Gong Y, Beitelshes AL, Wessel J, Langae TY, Schork NJ, Johnson JA. Single nucleotide polymorphism discovery and haplotype analysis of ca²⁺-dependent k⁺ channel beta-1 subunit. *Pharmacogenet Genomics*. 2007;17:267-275

Shin J, Lobmeyer MT, **Gong Y**, Zineh I, Langae TY, Yarandi H, Schofield RS, Aranda JM, Jr., Hill JA, Pauly DF, Johnson JA. Relation of beta(2)-adrenoceptor haplotype to risk of death and heart transplantation in patients with heart failure. *Am J Cardiol*. 2007;99:250-255

Lobmeyer MT, **Gong Y**, Terra SG, Beitelshes AL, Langae TY, Pauly DF, Schofield RS, Hamilton KK, Herbert Patterson J, Adams KF, Jr., Hill JA, Aranda JM, Jr., Johnson JA. Synergistic polymorphisms of beta1 and alpha2c-adrenergic receptors and the influence on left ventricular ejection fraction response to beta-blocker therapy in heart failure. *Pharmacogenet Genomics*. 2007;17:277-282

Langae TY, **Gong Y**, Yarandi HN, Katz DA, Cooper-DeHoff RM, Pepine CJ, Johnson JA. Association of cyp3a5 polymorphisms with hypertension and antihypertensive response to verapamil. *Clin Pharmacol Ther*. 2007;81:386-391

- Brunner M, Cooper-Dehoff RM, **Gong Y**, Karnes JH, Langaee TY, Pepine CJ, Johnson JA. Factors influencing blood pressure response to trandolapril add-on therapy in patients taking verapamil sr (from the international verapamil sr/trandolapril [invest] study). *Am J Cardiol*. 2007;99:1549-1554
- Beitelshees AL, **Gong Y**, Wang D, Schork NJ, Cooper-DeHoff RM, Langaee TY, Shriver MD, Sadee W, Knot HJ, Pepine CJ, Johnson JA. *KCNMB1* genotype influences response to verapamil SR and adverse outcomes in the INternational VERapamil SR/Trandolapril STudy (INVEST). *Pharmacogenet Genomics*. 2007 Sep;17(9):719-729.
- Shin J, Kline S, Moore M, **Gong Y**, Bhanderi V, Schmalfluss CM, Johnson JA, Schofield RS. Association of diurnal blood pressure pattern with risk of hospitalization or death in men with heart failure. *J Card Fail* 2007;13:656-62.
- Hassan M, York KM, Li H, Li Q, **Gong Y**, Langaee TY, Fillingim RB, Johnson JA, Sheps DS. Association of beta1-adrenergic receptor genetic polymorphism with mental stress-induced myocardial ischemia in patients with coronary artery disease. *Arch Intern Med*. 2008 Apr 14; 168(7):763-70
- Gerhard T, **Gong Y**, Beitelshees AL, Lobmeyer MT, Cooper-DeHoff RM, Langaee TY, Schork NJ, Pepine CJ., Johnson JA, for the INVEST Investigators. Association between Cardiovascular Outcomes, Diuretic Therapy and the α -adducin Polymorphism: Results from the INternational VERapamil SR-trandolapril STudy GENetic Substudy (INVEST-GENES). *American Heart Journal*, 2008 Aug;156 (2):397-404
- Pacanowski MA, **Gong Y**, Cooper-DeHoff RM, Schork NJ, Shriver MD, Langaee TY, Pepine CJ, Johnson JA. β -adrenergic receptor gene polymorphisms and β -blocker treatment outcomes in Hypertension, *Clin Pharmacol Ther*, 2008 Dec;84(6):715-21
- Johnson AD, **Gong Y**, Wang D, Langaee TY, Shin J, Cooper-DeHoff RM, Schork NJ, Binkley P, Pepine CJ, Johnson JA. Sadee W. Promoter Polymorphisms in ACE (angiotension-I converting enzyme) associated with clinical outcomes in hypertension. *Clin Pharmacol Ther*, 2009 Jan; 85(1):36-44
- Denardo SJ., Messerli FH, Gaxiola E, Aranda JM, Cooper-DeHoff RM, Handberg EM, **Gong Y**, Champion A, Zhou Q. Pepine CJ. Characteristics and Outcomes of Revascularized Patients with Hypertension: A Substudy of the International Verapamil SR-Trandolapril Study, *Hypertension*, 2009 Feb 23. [Epub ahead of print]
- Johnson JA, Boerwinkle E, Zineh I, Chapman AB, Bailey KR, Cooper-DeHoff RM, Gums JG, Curry RW, **Gong Y**, Beitelshees AL, Schwartz GL, Turner ST. Pharmacogenomics of Antihypertensive drugs: Rationale and Design of the

Pharmacogenomic Evaluation of Antihypertensive Responses (PEAR) Study.
American Journal of Hypertension, 2009; 157: 442-449.

Gong Y, Handberg EM, Copper-DeHoff RM, Matyas K, Johnson JA., Pepine CJ; for the INVEST investigators. Office vs Ambulatory Blood Pressure in Hypertensive CAD Patients: Findings from the INternational VERapamil SR - Trandolapril Study (INVEST). *Clinical Cardiology*, in press, 2009.

Johnson JA, **Gong Y**, Bailey KR, Cooper-DeHoff RM, Chapman AB, Turner ST, Schwartz GL, Campbell K, Schmidt Siegfried, Beitelshees AL, Boerwinkle E, Gums JG. Combination antihypertensive therapy with hydrochlorothiazide and atenolol: effect of initiation order. *Clinical Pharmacology and Therapeutics*, in press, 2009

Smith SM, Anderson SD, Wen S, **Gong Y**, Turner ST, Cooper-DeHoff RM, Schwartz GL, Bailey K, Chapman A, Hall KL, Feng H, Boerwinkle E, Johnson JA, Gums JG. Thiazide-induced Hyperglycemia is not related to hypokalemia: results from the Pharmacogenomic Evaluation of Antihypertensive Response (PEAR) Study, *Pharmacotherapy*, in press, 2009

Beitelshees AL, Navare H, Wang D, **Gong Y**, Wessel J, Moss JI, Langaee TY, Cooper-DeHoff RM, Sadee W, Pepine CJ, Schork NJ, Johnson JA. *CACNA1C* gene polymorphisms, cardiovascular disease outcomes and treatment response, *Circulation Cardiovascular Genetics*, in press, 2009

Beitelshees AL, **Gong Y**, Bailey KR, Turner ST, Chapman AB, Schwartz GL, Gums JG, Boerwinkle E, Johnson JA. Comparison of Office, Ambulatory, and Home Blood Pressure Antihypertensive Response to Atenolol and Hydrochlorothiazide. in press, 2009

Cooper-DeHoff RM, Wen Sheron, Beitelshees AL, Zineh I, Gums JG, Turner ST, **Gong Y**, Hall K, Parekh V, Chapman A, Boerwinkle E, Johnson JA. Impact of Abdominal Obesity on Incidence of Adverse Metabolic Effects Associated with Antihypertensive Medications. Submitted, 2009

Niu Y, Langaee TY, **Gong Y**, Moss JI, Cooper-Dehoff RM, Pepine CJ, Johnson JA. DNA Variations in Voltage-gated Calcium Channel Beta 2 Subunit (*CACNB2*) Gene, Functional Consequences, and Association with Adverse Cardiovascular Outcomes in the INternational VERapamil SR-trandolapril STudy-GENETic Substudy. *submitted* 2009.

Published Abstracts:

King MA, **Gong Y**, Meyers C, Hughes JA and Meyer EM, 2004. Localized gene transfer of K670N/M671L app into rat hippocampus produces miniemonic deficits, neuronal

degeneration, and alpha7 nicotinic receptor alterations. *Neurobiology of Aging*. 25, S225-S225.

Gong Y, Beitelshes AL, Stauffer L, Gaston K, Sloan A, Yarandi HN, Langa TY, Cooper-DeHoff RM, Pepine CJ, Johnson JA. Beta 2-adrenergic receptor (B2AR) polymorphisms and antihypertensive response to beta-blocker therapy in the INVEST trial. *Clin Pharmacol Ther* 2005; 2: 22.

Beitelshes AL, **Gong Y**, Cooper-DeHoff RM, Moss JI, Pepine CJ, Johnson JA. Variable blood pressure response to verapamil by KCNMB1 genotype. *Clin Pharmacol Ther* 2005; 2: 97.

Gerhard T, **Gong Y**, Beitelshes AL, Lobmeyer M, Schiefelbein L, Langa TY, Cooper-DeHoff RM and Johnson JA Association between CV outcomes, diuretic use and the alpha-adducin gene; Results from the INternational VERapamil SR Trandolapril SStudy (INVEST). *Circulation*, **112**, U670-U670.

Gong Y, Beitelshes AL, Stauffer LA, Langa TY, Cooper-DeHoff RM, Pepine CJ, Johnson JA, 2006. Beta adrenergic receptors polymorphisms are associated with response to beta-blocker therapy in the INternal VERapamil SR-Trandolapril Sudy (INVEST). *Clin Pharmacol Ther*. 79, 2: 30.

Beitelshes AL, **Gong Y**, Cooper-DeHoff RM, Burt L, Stauffer LA, Pepine CJ, Johnson JA. 2006. KCNMB1 genotype associated with cardiovascular outcomes in the INternational VERapamil SR-Trandolapril Sudy (INVEST). *Clin Pharmacol Ther*. 79, 2: 41.

Brunner M, Karnes JH, **Gong Y**, Langa TY, Cooper-DeHoff RM, Pepine CJ, Johnson JA, 2006. Association of angiotension II type I receptor (AGTR1) 1166A>C polymorphism with blood pressure response to ACE inhibitor in a subgroup of patients of the INternational VERapamil SR-Trandolapril Study (INVEST). *Clin Pharmacol Ther*. 79, 2: 14.

Shin J, Lobmeyer MT, **Gong Y**, Zineh I, Langa TY, Yarandi HN, Pauly DF, Aranda JM, Schofield RS, Hill JA, Johnson JA, 2006. A haplotype of β 2-adrenoceptor is associated with the increased risk for transplant or death in heart failure patients. *Clin Pharmacol Ther*, 79, 2: 30.

Lobmeyer MT, Terra SG, **Gong Y**, Hamilton KK, Pauly DF, Patterson JH, Adams KF, Schofield RS, Hill JA, Aranda JM, Johnson JA. 2006. Synergistic polymorphisms of β 1- and α 2C-adrenergic receptors and the influence on left ventricular ejection fraction in response to β -blocker therapy in heart failure. *Clin Pharmacol Ther*. 79, 2: 31.

Johnson JA, Karnes JH, Brunner M, **Gong Y**, Langa TY, Cooper-DeHoff RM, Pepine CJ. 2006. Lack of association of the angiotension II type I receptor (AGTR1) 1166

A>C polymorphism with cardiovascular and cerebrovascular outcomes in subgroup of patients of the INternational VERapamil SR-Trandolapril Sudy (INVEST). *Clin Pharmacol Ther.* 79, 2: 43.

Handberg E, **Gong Y**, DeHoff RC, Ried LD, Pepine CJ. Can an assessment of subjective well being predict outcomes in patients with hypertension and coronary artery disease? A report from the international verapamil-SR/Trandolapril study (INVEST). *Journal of the American College of Cardiology.* Feb 2006; 47(4):300A

Cooper-Dehoff RM, Gerhard T, **Gong Y**, Handberg EM, Messerli FH, Pepine CJ. Blood pressure < 120/80 mm hg is risky in elderly CAD patients: Findings from the INternational VERapamil SR-trandolapril STudy (INVEST). *Circulation* 2007; 115: E258-E258.

Langaee TY, Burkley B, **Gong Y**, Zineh I. Effects of CYP3A4 and CYP3A5 polymorphisms on cholesterol responses to atorvastatin. *Clinical Pharmacology & Therapeutics* 2007; 81: S89-S89.

Pacanowski MA, **Gong Y**, Langaee TY, Cooper-DeHoff RM, Schork NJ, Pepine CJ, Johnson JA. beta 2-adrenergic receptor polymorphisms and antihypertensive treatment outcomes in the international verapamil SR/trandolapril study-genetic substudy (invest-genes). *Clinical Pharmacology & Therapeutics* 2007; 81: S34-S34.

Schentrup AM, Nino G, **Gong Y**, Lima JJ, Cooper-Dehoff RM, Pepine CJ, Johnson JA. LTA4H variant confers drug therapy-dependent reduced risk of cardiovascular events in invest (international verapamil SR/trandolapril study). *Clinical Pharmacology & Therapeutics* 2007; 81: S35-S35.

Shin J, Kline S, Moore M, **Gong Y**, Blianderi V, Schmalfuss CM, Schofield RS, Johnson JA. Diurnal blood pressure pattern is associated with risk for hospitalization or death in heart failure. *Clinical Pharmacology & Therapeutics* 2007; 81: S15-S15.

Johnson AD, **Gong Y**, Wang D, Langaee TY, Shin J, Cooper-DeHoff RM, Schork NJ, Shriver MA, Binkley P, Pepine CJ, Johnson JA, Sadee W. Novel promoter polymorphisms in angiotensin-I converting enzyme (*ACE*) associated with clinical outcomes in hypertensive coronary artery disease (CAD) patients. *Clin Pharmacol Ther* 2008;83(S1):S8. Podium presentation at the American Society for Clinical Pharmacology and Therapeutics Annual Meeting, Orlando, FL, April 2008.

Pacanowski MA, Cooper-DeHoff RM, **Gong Y**, Schork NJ, Pepine CJ, Johnson JA. Diabetes risk associated with β_1 -adrenergic receptor polymorphisms differs by antihypertensive drug therapy: Results from the INternational VERapamil SR/ trandolapril STudy – GENETic Substudy (INVEST-GENES). *Clin Pharmacol Ther* 2008;83 (S1):S83. Poster at the American Society for Clinical Pharmacology and Therapeutics Annual Meeting, Orlando, FL, April 2008.

Navare HA, Beitelshes AL, **Gong Y**, Langaee TY, Cooper-Dehoff RM, Pepine CJ, Johnson JA. CACNA1C Polymorphisms and cardiovascular outcomes in the International Verapamil SR/Trandolapril Study-Genetic Substudy (INVEST-GENES). *Clin Pharmacol Ther* 2008; 83(S1):S4.

Niu Y, Langaee TY, **Gong Y**, Moss JI, Cooper-Dehoff RM, Pepine CJ, Johnson JA. DNA Variations in Voltage-gated Calcium Channel Beta 2 Subunit (CACNB2) Gene, Functional Consequences, and Association with Adverse Cardiovascular Outcomes in the International Verapamil SR-trandolapril Study-GENetic Substudy. *Circulation* 2008;118:S_885