

# Curriculum Vitae

## Jinying Zhao, MD, PhD

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### EDUCATION

2000-2005      Doctor of Philosophy (Statistical Genetics & Genetic Epidemiology)  
University of Texas Health Science Center at Houston, Houston, TX

1996-1999      Doctor of Philosophy (Molecular Genetics)  
Chinese Academy of Medical Sciences, Beijing, China

1989-1992      Master of Science (Pathology)  
Zhengzhou University School of Medicine, Zhengzhou, China

1984-1989      Doctor of Medicine  
Zhengzhou University School of Medicine, Zhengzhou, China

### PROFESSIONAL EXPERIENCE

08/2016 –                      **Professor**  
**Director**, Division of Genetic Epidemiology  
Department of Epidemiology, College of Public Health and Health  
Professions and College of Medicine  
University of Florida, Gainesville, FL

8/2016 –                      **Adjunct Professor**  
Department of Epidemiology  
School of Public Health and Tropical Medicine

Tulane University, New Orleans, LA

07/2014 – 8/2016     **Full Professor**  
 Department of Epidemiology  
 School of Public Health and Tropical Medicine  
 Tulane University, New Orleans, LA

07/2012 – 06/2014     **Associate Professor**  
 Department of Epidemiology  
 School of Public Health and Tropical Medicine  
 Tulane University, New Orleans, LA

01/2009 – 06/2012     **Associate Professor**  
 Department of Biostatistics and Epidemiology  
 College of Public Health  
 University of Oklahoma HSC, Oklahoma City, OK

01/2006 – 12/2009     **Assistant Professor**  
 Division of Cardiology, Department of Medicine  
 Emory University School of Medicine, Atlanta, GA

05/2000 – 12/2005     **Graduate Research Assistant**  
 Human Genetics Center, School of Public Health  
 University of Texas Health Science Center at Houston  
 Houston, Texas

07/1999 – 04/2000     **Postdoctoral Research Fellow**  
 Human Genetics Center, School of Public Health  
 University of Texas Health Science Center at Houston  
 Houston, Texas

07/1992 – 06/1999     **Clinical Pathologist**  
 Department of Pathology, Henan People’s Hospital  
 Zhengzhou, China

**HONORS AND AWARDS**

2012     Winner, *Roger R. Williams Award for Genetic Epidemiology in the Prevention and Treatment of Atherosclerosis*, presented by the American Heart Association

2010     *Outstanding Faculty Award in Research or Scholarly Achievement*, presented by College of Public Health, University of Oklahoma Health Science Center

2009     Finalist, *Sandra Daugherty Award for Excellence in Cardiovascular Disease or Hypertension Epidemiology*, presented by the American Heart Association

2006     Winner, *Elizabeth Barrett-Connor Research Award for Young Investigators*, presented by the American Heart Association

**PROFESSIONAL MEMBERSHIP**

- American Society of Human Genetics
- American Heart Association
- American Diabetes Association

## TEACHING AND MENTORING

### *Graduate courses*

2012- Present	<b>Genetic Epidemiology (Course master, 3 credit hours)</b> Department of Epidemiology School of Public Health and Tropical Medicine, Tulane University, LA
2010-2012	<b>Statistical Methods in Genetic Epidemiology (Course master, 3 credit hours)</b> Department of Biostatistics and Epidemiology College of Public Health, University of Oklahoma HSC, OK
2011-2012	<b>Molecular and Genetic Epidemiology (Course master, 3 credit hours)</b> Department of Biostatistics and Epidemiology College of Public Health, University of Oklahoma HSC, OK
2009-2012	<b>Cancer Epidemiology (3 credit hours)</b> Department of Biostatistics and Epidemiology College of Public Health, University of Oklahoma HSC, OK
2010-2011	<b>Problems in Biostatistics and Epidemiology (3 credit hours)</b> Department of Biostatistics and Epidemiology College of Public Health, University of Oklahoma HSC, OK

### *Academic Advisor and Mentor*

#### *Junior Faculty Mentor*

2014-2015	Shengxu Li, PhD, Assistant Professor, Department of Epidemiology Tulane School of Public Health and Tropical Medicine, LA
2014-Present	Qi Zhao, MD, PhD, Research Assistant Professor, Department of Epidemiology Tulane School of Public Health and Tropical Medicine, LA
2009-2012	Ying Zhang, PhD, Research Assistant Professor, Department of Biostatistics and Epidemiology, College of Public Health, University of Oklahoma Health Science Center, OK

### **Postdoctoral Fellows**

- 2010-2012 Jingyun Yang, PhD  
College of Public Health, University of Oklahoma Health Science Center, OK
- 2013-2014 Shufeng Chen, MD, PhD  
School of Public Health and Tropical Medicine, Tulane University, LA
- 2015-Present Hao Peng, PhD  
School of Public Health and Tropical Medicine, Tulane University, LA

### **PhD Committee Chair**

- 2016-Present Yun Zhu  
Department of Epidemiology  
College of Public Health and Health Professions, University of Florida,
- 2014-2016 Yun Zhu  
Department of Epidemiology  
School of Public Health and Tropical Medicine, Tulane University, LA
- 2013-2015 Qiang An  
Department of Epidemiology  
School of Public Health and Tropical Medicine, Tulane University, LA

### **PhD Dissertation Committees**

- 2014-2015 Changwei Li, PhD  
Department of Epidemiology  
School of Public Health and Tropical Medicine, Tulane University, LA
- 2015-2016 Yu Deng  
Department of Biostatistics  
The University of North Carolina at Chapel Hill, Chapel Hill, NC
- 2016-Present Weiwei Ouyang  
Department of Biostatistics and Bioinformatics  
School of Public Health and Tropical Medicine, Tulane University, LA
- 2007-2010 Tiffany L. Brunson  
Morehouse School of Medicine, Atlanta, GA
- 2007-2010 Isfahan Chambers  
Morehouse School of Medicine, Atlanta, GA

**MS/MPH Advisor (since 2012)**

Department of Epidemiology, Tulane School of Public Health and Tropical Medicine, LA

Sai Ma; Sagar Mehta; Yun Zhu; Qiang An; Xiaotao Zhang; Junwei Jiang; Jingxin Li; Oliva Bell; Yunlong Geng; Hayato Oka; Woneata Stallworth

**GRANTS**

**Active**

**1R01AG052476**

Title: Genome-wide profiling of brain DNA hydroxymethylome in Alzheimer's disease

Source: National Institute of Aging (NIA)

Dates: 05/01/2016-04/30/2021

**Role: Principal Investigator**

**1R01DK107532**

Title: Novel metabolic predictors of diabetes in American Indians

Source: National Institute of Diabetes and Digestive and Kidney Disease (NIDDK)

Dates: 08/01/2016-07/30/2020

**Role: Principal Investigator**

**1R01MH097018**

Title: Epigenetic determinants for depression: a monozygotic discordant twin study

Source: National Institute of Mental Health (NIMH)

Dates: 08/15/13-07/31/18

**Role: Principal Investigator**

**1R01DK091369**

Title: Telomere attrition and diabetes risk in American Indians

Source: National Institute of Diabetes and Digestive and Kidney Disease (NIDDK)

Dates: 09/01/11-05/31/17

**Role: Principal Investigator**

**1R01DK101505**

**(Kelly)**

Title: Whole-exome sequencing study of diabetic nephropathy (PI: Kelly)

Source: National Institute of Diabetes and Digestive and Kidney Disease (NIDDK)

Dates: 08/21/15-05/31/20

**Role: Co-Investigator**

**1P20GM109036-01A1 (He)**

Title: Tulane COBRE for Clinical and Translational Research in Cardiometabolic Diseases

Source: NIH

Dates: 03/10/2016-02/28/2021

**Role: Mentor/Co-Investigator**

**Pending**

**1R01DK109112-01A1**

Title: Genetic determinants of telomere length and the causal impact of telomere shortening on diabetes risk in American Indians

Source: National Institute of Diabetes and Digestive and Kidney Disease (NIDDK)

Dates: 09/01/2016-08/31/2021

**Role: Principal Investigator**

**1R21MH110883**

Title: Genome-wide mapping of human brain DNA hydroxymethylome in major depression

Source: National Institute of Mental Health (NIMH)

Dates: 07/01/2016-06/30/2018

**Role: Principal Investigator**

**1R21AG051914 (Kelly)**

Title: The Roles of the Microbiome and Metabolome in Vascular Aging

Sources: National Institute of Aging (NIA)

Dates: 09/01/2015-08/31/2017

**Role: Co-Investigator**

**1R01HG009311 (Xiong)**

Title: Deep genetic analysis of complex diseases

Sources: National Institute of General Medical Sciences (NIGMS)

Dates: 09/01/2016-08/31/2021

**Role: Co-Investigator**

**5R01DK091718-05 (Qi)**

Title: Obesity genes, energy regulation in response to weight-loss diets

Sources: National Institute of Diabetes and Digestive and Kidney Disease (NIDDK)

Dates: 09/01/2016-08/31/2021

**Role: Co-Investigator**

**1R01AA025432 (Qin)**

Title: Mapping multi-layer causes and causal pathways for multiple traits

Sources: National Institute of General Medical Sciences (NIGMS)

Dates: 12/01/2016-11/30/2021

**Role: Co-Investigator**

## **Completed**

### **1R21HL092363-01A2**

Title: Genetic variations in the HPA axis and comorbidity of depression and CVD

Source: National Heart, Lung and Blood Institute (NHLBI)

Dates: 9/30/09-6/30/13

**Role: Principal Investigator**

### **1K01AG034259**

Title: Biological aging, mitochondrial variants and coronary artery disease

Source: National Institute of Aging (NIA)

Dates: 9/15/09-8/31/13

**Role: Principal Investigator**

### **AHA 0730100N**

Title: Common genetic pathways linking depression to cardiovascular disease: a twin study

Source: American Heart Association

Dates: 1/1/07-8/31/11

**Role: Principal Investigator**

### **ACTSI-KL2**

Title: Role of mitochondrial polymorphisms in CAD and adverse cardiovascular outcomes

Source: Atlanta Clinical and Translational Science Institute (ACTSI)/National Health Institute

Dates: 4/15/08-3/31/10

**Role: Principal Investigator**

### **Oklahoma Tobacco Research Center (OTRC)**

Title: Genotype-specific effect of cigarette smoking on CAD in American Indians

Source: Oklahoma Tobacco Research Center

Dates: 7/1/09-6/30/11

**Role: Principal Investigator**

### **Emory University Heart and Vascular Center**

Title: Blood and tissue-banking for heart and vascular diseases: The Emory Heart and Vascular Center's Genomic Platform

Source: Emory University Heart and Vascular Center

Dates: 7/1/07-6/30/09

**Role: Principal Investigator**

### **Emory Center for Research on Symptoms Interactions and Health Outcomes**

Title: Genetic pathways in depressive symptoms susceptibility

Source: Emory University School of Nursing

Dates: 7/1/07-6/30/08

**Role: Principal Investigator**

## Emory University Research Committee

Title: Genetic pathways in coronary artery disease susceptibility

Source: Emory University

Dates: 1/1/08-12/30/08

Role: Principal Investigator

## PUBLICATIONS (\* Corresponding author; † Trainee)

1. Zhao Q, Zhu Y, Best LG, Umans JG, Uppal K, Tran VT, Jones DP, Lee ET, Howard BV, **Zhao J**. Metabolic profiles of obesity in American Indians: the Strong Heart Family Study. *Plos One* 11(7): e0159548. doi:10.1371/journal.pone.0159548
2. Fretts AM, Howard BV, Siscovick DS, Best LG, Beresford SA, Mete M, Eilat-Adar S, Sotoodehnia N, **Zhao J**. Processed meat, but not unprocessed red meat, associated with short leukocyte telomere length in the Strong Heart Family Study. *Journal of Nutrition* (in press)
3. Peng H, Zhu Y, Cole SA, Best LG, Lin J, Blackburn E, Devereux R, Roman MJ, Lee ET, Howard B, **Zhao J**. Impact of Biological Aging on Arterial Aging in American Indians: Findings from the Strong Heart Family Study. *Aging (Albany NY)*. 2016 Aug 11. doi: 10.18632/aging.101013. [Epub ahead of print]
4. Kelly TN, Bazzano L, Ajami N, He H, **Zhao J**, Petrosino J, Correa A, He J. The Gut Microbiome Associates with Lifetime Cardiovascular Disease Risk Profile among Bogalusa Heart Study Participants. *Cardiovascular Research* (in press)
5. Ouyang W, An Q, **Zhao J**, Qin H. Integrating mean and variance heterogeneities to identify differentially expressed genes. *BMC Bioinformatics* (in press)
6. Li C, He J, Chen J, **Zhao J**, Gu D, Hixson JE, Rao DC, Jaquish CE, Gu CC, Chen J, Huang J, Chen S, Kelly TN. Genome-wide gene-sodium interaction analyses on blood pressure: the genetic epidemiology network of salt-sensitivity study. *Hypertension*. 2016; 68:348-355
7. **Zhao J**,\* An Q, † Goldberg J, Quyyumi AA, Vaccarino V. Promoter methylation of glucocorticoid receptor gene is associated with subclinical atherosclerosis: a monozygotic twin study. *Atherosclerosis*. 2015 Sep;242(1):71-6
8. **Zhao J**,\* Zhu Y, † Xiong M. Genome-wide gene-gene interaction analysis for next-generation sequencing. *Eur J Hum Genet* 2015 Jul 15. doi: 10.1038/ejhg.2015.147. [Epub ahead of print]
9. Zhang M, † An Q, † Zhang Y, † Zhang X, † Lee ET, Howard BV, **Zhao J**.\* Smoking-attributable mortality in American Indians: The Strong Heart Study. *Eur J Epidemiol* 2015;30(7):553-61



10. **Zhao J**,\* Zhu Y,<sup>†</sup> Hyun N, Zeng D, Uppal K, Tran VT, Yu T, Dean J, He J, Lee ET, Howard BV. Novel metabolic markers for the risk of diabetes development in American Indians. *Diabetes Care*. 2015;38(2):220-7
11. **Zhao J**, Zhu Y,<sup>†</sup> Boerwinkle E, Xiong M. Pathway analysis with next-generation sequencing data. *Eur J Hum Genet* 2015; 23(4):507-15
12. Li S,<sup>†</sup> **Zhao J**, Wang G, Zhu Y, Rabito F, Krousel-Wood M, Chen W, Whelton PK. Urinary triclosan concentrations are inversely associated with body mass index and waist circumference in the US general population: Experience in NHANES 2003-2010. *Int J Hyg Environ Health*. 2015;218(4):401-6
13. **Zhao J**,\* Zhu Y,<sup>†</sup> Lin J, Matsuguchi T, Blackburn E, Zhang Y,<sup>†</sup> Cole SA, Best LG, Lee ET, Howard BV. Short leukocyte telomere length predicts risk of diabetes in American Indians: The Strong Heart Family Study. *Diabetes* 2014; 63(1):354-62
14. Zhu Y,<sup>†</sup> Yang J,<sup>†</sup> Yeh F, Cole SA, Haack K, Lee ET, Howard BV, **Zhao J**.\* Joint association of nicotinic acetylcholine receptor variants with abdominal obesity in American Indians: The Strong Heart Family Study. *PloS One* 2014; 9(7): e102220. doi:10.1371/journal.pone.0102220
15. Chen S,<sup>†</sup> Lin J, Matsuguchi T, Blackburn E, Yeh F, Best LG, Devereux RB, Lee ET, Howard BV, Roman MJ, **Zhao J**.\* Short leukocyte telomere length predicts incidence and progression of carotid atherosclerosis in American Indians: the Strong Heart Family Study. *Aging (Albany NY)* 2014; 6(5):414-27
16. Chen S,<sup>†</sup> Yeh F, Lin J, Matsuguchi T, Blackburn E, Lee ET, Howard BV, **Zhao J**.\* Short leukocyte telomere length is associated with obesity in American Indians: the Strong Heart Family study. *Aging (Albany NY)*. 2014; 6(5):380-9.
17. **Zhao J**,\* Zhu Y, Uppal K, Tran VT, Yu T, Lin J, Matsuguchi T, Blackburn E, Jones D, Lee ET, Howard BV. Metabolic profiles of biological aging in American Indians: the strong heart family study. *Aging (Albany NY)* 2014; 6(3):176-86.
18. Zhu Y,<sup>†</sup> Yang J,<sup>†</sup> Li S,<sup>†</sup> Cole SA, Haack K, Umans JG, Franceschini N, Howard BV, Lee ET, **Zhao J**.\* Genetic Variants in nicotinic acetylcholine receptor genes jointly contribute to kidney function in American Indians: The Strong Heart Family Study. *J Hypertens* 2014; 32(5):1042-8.
19. **Zhao J**,\* Roman MJ, Devereux RB, Yeh F, Zhang Y,<sup>†</sup> Haack K, Best LG, Cole SA, Lee ET, Howard BV. Leukotriene haplotype × diet interaction on carotid artery hypertrophy and atherosclerosis in American Indians: The Strong Heart Family Study. *Atherosclerosis* 2014; 233:165-171
20. Yang J,<sup>†</sup> Zhu Y,<sup>†</sup> Lee ET, Zhang Y,<sup>†</sup> Cole SA, Haack K, Best LG, Devereux RB, Roman MJ, Howard BV, **Zhao J**.\* Joint associations of 61 genetic variants in the nicotinic acetylcholine receptor genes with subclinical atherosclerosis in American Indians: a gene-family analysis. *Circulation: Cardiovascular Genetics*. 2013; 6:89-96.

21. Zhu Y,<sup>†</sup> Voruganti VS, Lin J, Matsuguchi T, Blackburn E, Best LG, Lee ET, Maccluer JW, Cole SA, **Zhao J.**\* QTL mapping of leukocyte telomere length in American Indians: The Strong Heart Family Study. *Aging (Albany NY). Aging (Albany NY)*. 2013;5(9):704-16
22. **Zhao J.**\* Goldberg J, Bremner JD, Vaccarino V. Association between promoter methylation of serotonin transporter gene and depressive symptoms: a monozygotic twin study. *Psychosom Med*. 2013; 75(6):523-9
23. **Zhao J.**\* Bremner JD, Goldberg J, Quyyumi AA, Vaccarino V. Monoamine oxidase a genotype, childhood trauma, and subclinical atherosclerosis: a twin study. *Psychosom Med*. 2013;75(5):471-7
24. **Zhao J.**\* Goldberg J, Vaccarino V. Leukotriene A4 hydrolase haplotype, diet and atherosclerosis: A twin study. *Atherosclerosis* 2013; 226(1):238-44
25. **Zhao J.**\* Goldberg J, Bremner JD and Vaccarino V. Global DNA methylation is associated with insulin resistance: a monozygotic twin study. *Diabetes* 2012; 61(2):542-6.
26. Yang J,<sup>†</sup> Cole SA, Haack K, Zhang Y,<sup>†</sup> Howard BV, Best LG, Devereux RB, Henderson JA, Henderson P, Lee ET and **Zhao J.**\* A gene-family analysis of 61 genetic variants in the nicotinic acetylcholine receptor genes for insulin resistance and type 2 diabetes in American Indians. *Diabetes* 2012; 61(7):1888-94
27. **Zhao J.**\* Goldberg J and Vaccarino V. Promoter methylation of the serotonin transporter gene is associated with obesity measures: a monozygotic twin study. *International Journal of Obesity* 2012; doi: 10.1038/ijo.2012.8
28. **Zhao J.**\* Forsberg CW, Goldberg J, Smith NL, Vaccarino V. MAOA Promoter methylation and susceptibility to carotid atherosclerosis: role of familial factors in a monozygotic twin sample. *BMC Med Genet* 2012 Nov 2;13:100.
29. Yang J<sup>†</sup> and **Zhao J.**\* Cumulative effect of common genetic variants predicts incident type 2 diabetes: a study of 21,183 subjects from three large prospective cohorts. *Epidemiology*. 2011 Nov 1;1(3):108
30. Patel RS, Su S, Neeland IJ, Ahuja A, Veledar E, **Zhao J.**, Helgadottir A, Holm H, Gulcher JR, Stefansson K, Waddy S, Vaccarino V, Zafari AM, Quyyumi AA. The chromosome 9p21 risk locus is associated with angiographic severity and progression of coronary artery disease. *Eur Heart J*. 2010; 31(24):3017-23
31. Peng G, Luo L, Siu H, Zhu Y, Hu P, Hong S, **Zhao J.**, Zhou X, Reveille JD, Jin L, Amos CI, Xiong M. Gene and pathway-based second-wave analysis of genome-wide association studies. *Eur J Hum Genet*. 2010; 18: 111–117.

32. **Zhao J**,\* Quyyumi AA, Patel R, Zafari AM, Veledar E, Onufrak S, Shallenberger LH, Jones L, Vaccarino V. Sex-specific association of depression and a haplotype in leukotriene A4 hydrolase gene. *Psychosom Med.* 2009;71(7):691-6.
33. Vaccarino V, Votaw J, Faber T, Veledar E, Murrah NV, Jones LR, **Zhao J**, Su S, Goldberg J, Raggi JP, Quyyumi AA, Sheps DS, Bremner JD. Major depression and coronary flow reserve detected by positron emission tomography. *Arch Intern Med.* 2009; 169 (18):1668-76.
34. Su S, **Zhao J**, Bremner JD, Miller AH, Tang W, Bouzyk M, Snieder H, Novik O, Afzal N, Goldberg J, Vaccarino V. Serotonin transporter gene, depressive symptoms and interleukin-6. *Circ Cardiovas Genet* 2009; 2:614-620
35. Su S. Lampert R, **Zhao J**, Bremner JD, Miller A, Snieder H, Lee F, Khan D, Goldberg J, Vaccarino V. Pleiotropy of C-reactive protein gene polymorphisms with C-reactive protein levels and heart rate variability in healthy male twins. *Am J Cardiol.* 2009; 104 (12):1748-54.
36. **Zhao J**,\* Cheema FA, Bremner JD, Goldberg J, Su S, Snieder H, Maisano C, Jones L, Javed F, Murrah N, Le NA and Vaccarino V. Heritability of carotid intima-media thickness: a twin study. *Atherosclerosis* 2008; 197:814-820
37. Su S, Snieder H, Miller AH, Ritchie J, Bremner JD, Goldberg J, Dai J, Jones L, Murrah NV, **Zhao J**, Vaccarino V. Genetic and environmental influences on systemic markers of inflammation in middle-aged male twins. *Atherosclerosis.* 2008; 200(1):213-20
38. **Zhao J**,\* Cheema FA, Reddy U, Bremner JD, Su S, Goldberg J, Snieder H, and Vaccarino V. Heritability of flow-mediated dilation: a twin study. *J Thromb Haemost* 2007; 5 (12) : 2386-2392.
39. **Zhao J**, Boerwinkle E, Xiong M. An entropy-based genome-wide transmission/disequilibrium test. *Hum Genet* 2007; 121(3-4):357-67
40. Lee EB, **Zhao J** (equal contribution first author), Kim JY, Xiong MM and Song YW. Evidence of potential interaction of chemokine genes in systemic sclerosis susceptibility. *Arthritis and Rheumatism* 2007; 56(7): 2443-2448
41. Lee EB, Kim JY, **Zhao J**, Park MH, Song YW. Haplotype association of IL-8 gene with Behcet's disease. *Tissue Antigens* 2007; 69(2): 128-132
42. **Zhao J**, Jin L, Xiong M. Test for interaction between two unlinked loci. *Am J Hum Genet* 2006; 79(5):831-45
43. **Zhao J**, Jin L, Xiong M. Nonlinear tests for genome-wide association studies. *Genetics* 2006; 174:1529-38
44. **Zhao J**, Boerwinkle E, Xiong M. Impact of haplotype frequency estimation error on test statistics in association studies. *Am J Hum Genet* 2006 ; 78: 728-729

45. **Zhao J**, Boerwinkle E and Xiong M. An entropy-based statistic for genome-wide association studies. *Am J Hum Genet* 2005; 77: 27-40
46. **Zhao J**, Xiong M, Huang W, Wang H, Zuo J, Wu G, Chen Z, Qiang B, Zhang M, Chen J, Ding W, Yuan W, Xu H, Jin L, Li Y, Sun Q, Liu Q, Boerwinkle E, Fang F. An autosomal genomic scan for loci linked to type 2 diabetes in northern Han Chinese population. *J Mol Med* 2005; 209:209-215
47. Xiong M, **Zhao J**, Xiong H. Network-based regulatory pathways analysis. *Bioinformatics* 2004; 20(13):2056-2066
48. Xiong M, **Zhao J**, Boerwinkle E. Haplotype block linkage disequilibrium mapping. *Frontiers in Bioscience* 2003; 8: 85-93
49. Xiong M, **Zhao J**, Boerwinkle E. Generalized  $T^2$  test for genome association studies. *Am J Hum Genet* 2002; 70:1257-1268
50. **Zhao J**, Li W and Xiong M. Population-based linkage disequilibrium mapping of QTL: An application to simulated data in an isolated population. *Genet Epidemiology* 2001; 21(Suppl 1): S655-S659
51. Xiong M, Li W, **Zhao J**, Jin L and Boerwinkle E. Feature (gene) selection in gene expression-based tumor classification. *Molecular Genetics and Metabolism* 2001; 73: 239-247
52. Xiong M, Fang XZ, **Zhao J**. Generalized  $T^2$  test for genome association studies. *Genome Research* 2001; 11:1878-1887
53. **Zhao J**, Wang H, Xiong M, Huang W, Zuo J, Chen Z, Qiang B, Sun Q, Li Y, Fang F. Localization of type 2 diabetes susceptibility genes in northern Chinese Han families. *Chinese Science Bulletin* 2000; 45(19):1792-1795
54. Yuan W, Xu H, **Zhao J**, Ding W, Jiang H, Gu M, Xue J, Chen J, Fang F, Chen Z, Jin L, Huang W. Information behavior of microsatellite loci in genome scanning. *Chin J Med Genet* 2000; 17(2):65-71
55. **Zhao J**, Wang H, Xiong M, Huang W, Zuo J, Chen Z, Qiang B, Sun Q, Li Y, Liu Q, Du W, Chen J, Ding W, Yuan W, Zhao Y, Xu H, Jin L, Fang F. Mapping of type 2 diabetes susceptibility genes in the northern Chinese Han families. *Acta Sinicae* 2000; 45(11):1154-1157
56. **Zhao J**, Wang H, Zuo J, Li Y, Sun Q, Huang W, Chen Z, Cai Y and Fang F. Genotyping and localization of genes associated with type 2 diabetes among Chinese. *Acta Anatomica Sinica* 1999; 30(4):11-17
57. **Zhao J**, Fang F, Cai Y. Research advances in positional cloning of non-insulin dependent diabetes mellitus. *Chinese Journal of Experimental Zoology*. 1999; 9(2):120-125

58. Li Y, **Zhao J**, Wang H. Family survey and genotype analysis of type 2 diabetes mellitus in Beijing district. *Basic Medical Sciences and Clinics*. 1999; 19(3):43-46
59. **Zhao J**,\* Cai Y and Fang F. Methods of genetic analysis to identify genes for polygenic traits. *Basic Medical Sciences and Clinics* 1999; 19(1):6-9
60. **Zhao J**,\* Fang F and Cai Y. Positional candidate approaches to identify human disease genes. *Basic Medical Sciences and Clinics* 1997; 17 (5):23-25
61. **Zhao J**,\* Zhu Q, Wu K and Li X. Potential role of human papillomaviruses in esophageal carcinomas of Taihang Macaca Mulatta. *Chin J Zoology* 1995; 30(3):35-37
62. Yin P, Cheng S, **Zhao J**, Zhu Q, and Hara Y. The inhibitory effect of green tea on large intestine cancer induced by 1,2-DMH. *Henan Medical Research* 1995; 4(2):164-167
63. Wu K, Zhu Q and **Zhao J**.\* Molecular and histological comparisons for the relationship between human HPVs infection and penile proliferative lesions. *Armed Med* 1995; 6(2):77-79
64. **Zhao J**,\* Zhu Q, Wu K. DNA diploid analysis of condyloma acuminata and carcinomas by flow cytometry. *Chin J Dermatol* 1994; 8(4):217-218
65. Yin P, **Zhao J**, Cheng S, Hara Y, Zhu Q, and Liu Z. Experimental studies of the inhibitory effects of green tea catechin on mice large intestinal cancers induced by 1,2-dimethylhydrazine. *Cancer Letters* 1994; 79: 33-38
66. **Zhao J**,\* Jin W, Li J, and Ding X. Quantitative study of nuclear organizer regions in retinoblastoma. *Chin Journal Ocular Fundus* 1993; 9(4):202-204
67. **Zhao J**,\* Zhu Q and Wu K. Researches on the relationship between human papillomaviruses and human penile condylomas and carcinomas. *Chin J Urology* 1993; 14(3):207-209
68. **Zhao J**,\* Wu K. Research advances in the relationship between human papillomaviruses (HPVs) and cancer. *Henan Medical Research* 1993; 2(1):85-88
69. **Zhao J**\* and Zhu Q. Dot blot hybridization to identify HPVs DNA sequences in the esophageal carcinomas of Taihang Mountain Macaca Mulatta. *J Experimental Animal Science* 1993; 13(2):78-79
70. **Zhao J**,\* Zhu Q, Cheng S, Ling Y and Fu X. The antagonistic effects of green tea extract on micronuclei and apoptosis induced by 1,2-DMH in the colon crypt cells of mice. *Acta Nutrimenta Sinica* 1992; 14(3):255-259
71. **Zhao J**\* and Zhu Q. Quantitative study of nuclear organizer regions in human penile condyloma and carcinomas. *Henan Medical Research* 1992; 1(2):149-153

## MANUSCRIPTS UNDER REVIEW OR IN PREPARATION

1. **Zhao J**, \* Zhu Y, † Yang J, † Li L, Wu H, De Jager P, Jin P, Bennett DA. A genome-wide profiling of brain DNA hydroxymethylome in Alzheimer's disease. *Alzheimer's & Dementia (revised)*
2. Peng H, † Mete M, Desale S, Fretts AM, Cole SA, Lyle BG, Lin J, Blackburn E, Lee ET, Howard BV, **Zhao J**. \* Ideal cardiovascular health and leukocyte telomere length in American Indians: The Strong Heart Study. *Eur J Epidemiol (revised)*
3. Deng Y<sup>†</sup>, Zeng D, **Zhao J**, Cai J. Proportional hazards model with a change point for clustered event data. *Biometrics (under review)*
4. Hammadah M, Mheid I, Wilmot K, Ramadan R, Abdulhadi NM, Abdulhadi N, Obideen M, Pimple PK, Levantsevych O, Kelli H, Shah AJ, Sun Y, Pearce B, Kutner M, Long Q, Ward L, Ko Y-A, Mohammed KH, Lin J, Zhao J, Bremner JD, Kim J, Waller EK, Raggi P, Sheps D, Quyyumi AA, Vaccarino V. Telomere Shortening, Regenerative Capacity, and Cardiovascular Outcomes. *Cardiovascular Research (under review)*
5. Li C, † Kim YK, Dorajoo R, Li H, Lee I-Te, Cheng C, He M, Sheu WH, Guo X, Ganesh S, He J, Lee J, Liu J, Hu Y, Rao DC, Tsai FJ, Koh JY, Hu H, Liang KW, Palmas W, Hixson JE, Han S, Teo YY, Wang Y, Chen J, Lu CH, Zheng Y, Gui L, Lee WJ, Yao J, Gu D, Sim X, Sun L, **Zhao J**, Chen CH, Kurmari N, He Y, Taylor KD, Raffel LJ, Moon S, Kim BJ, Tai ES, Lin X, Wu JY, Wong TY, Wu T, Chen Y, Rotter JI, Chakravarti A, Kelly TN. Genome-wide association studies meta-analysis on long term average blood pressure among Asian population. *Human Molecular Genet (under review)*
6. Li C, † He J, Chen J, **Zhao J**, Gu D, Hixson JE, Rao DC, Jaquish CE, Gu CC, Kelly TN. Genome-wide gene-potassium interaction analysis on blood pressure: the GenSalt Study. *Hypertension (under review)*
7. Gielen M, Hageman GJ... **Zhao J**, Kollerits B, Zeegers MP. BMI is negatively associated with telomere length: a meta-analysis of 67 cross-sectional studies. *Obesity Rev (under review)*
8. Zhu Y, † Folwer E, Bacus T, Roy-Byrne P, Strachan E, **Zhao J**. \* Lipidomics of major depression: a monozygotic discordant twin study.
9. Zhu Y, † Folwer E, Bacus T, Roy-Byrne P, Strachan E, **Zhao J**. \* Metabolomic profiles of major depression: a monozygotic discordant twin study.
10. Eric Strachan, Emily Folwer, Dedra Buchwald, Peter Roy-Byrne, **Zhao J**. Mood and Methylation Study (MMS): study design and methods in monozygotic discordant twins.
11. **Zhao J**, \* Zhu Y, † Folwer E, Bacus T, Li Q, Roy-Byrne P, Strachan E. Differentially expressed genes for major depressive disorder: a monozygotic discordant twin study.

12. Zhu Y, <sup>†</sup> Folwer E, Bacus T, Roy-Byrne P, Li Q, Strachan E, **Zhao J.** \* An integrated epigenetic, transcriptomic and metabolomic analysis of major depression.
13. Peng H, Fawn Y, Cole SA, Lyle BG, Lin J, Blackburn E, Lee ET, Howard BV, **Zhao J.** \* Plasminogen activator inhibitor-1 is associated with leukocyte telomere length in American Indians: Findings from the Strong Heart Family Study.
14. Zhu Y, <sup>†</sup> Emily Folwer, Tamara Bacus, Peter Roy-Byrne, Eric Strachan, **Zhao J.** \* Food- and gut microbial-derived metabolites are associated with major depression: a monozygotic discordant twin study.
15. Zhao Q, <sup>†</sup> Zhu Y, <sup>†</sup> Best LG, Umans JG, Uppal K, Tran VT, Jones DP, Lee ET, Howard BV, **Zhao J.** \* Gender-specific association of leukocyte telomere length with depressive symptoms in American Indians: The Strong Heart Family Study.
16. Hu Z, Wan P, Zhu Y, <sup>†</sup> Bennett DA, **Zhao J.**, Xiong M. A novel causal methylation network approach to Alzheimer's disease.
17. Lin N, Wang P, Zhu Y, <sup>†</sup> **Zhao J.**, Calhoun VD, Xiong M. Integrative large-scale causal network analysis of brain imaging and genomic data and its application to schizophrenia.
18. Peng H, <sup>†</sup> An Q, <sup>†</sup> Goldberg J, Vaccarino V, **Zhao J.** \* A gene-family analysis of promoter DNA methylation of circadian-related genes with inflammation: a monozygotic twin study.
19. Zhu Y, <sup>†</sup> Gang Hu, Brantley P, **Zhao J.** \* Differential metabolic effects of bariatric surgery versus intensive medical treatment in severely obese patients: findings from a pilot study.
20. Peng H, <sup>†</sup> Yeh F, Best LG, Lee ET, Howard BV, **Zhao J.** \* A higher level of plasma plasminogen activator inhibitor-1 level predicts an increased risk of hypertension in American Indians: The Strong Heart Study
21. Eilat-Adar S, Mete M, Zeymo A, Fretts AM, Howard BV, **Zhao J.** \* Macronutrient Intake and Dietary Patterns' Association with Telomere Length in American Indians: The Strong Heart Study.
22. Zhu Y, <sup>†</sup> Zhao Q, <sup>†</sup> Umans JG, Jones DP, Lee ET, Howard BV, **Zhao J.** \* Novel metabolic predictors for the onset and progression of carotid atherosclerosis in American Indians: The Strong Heart Family Study.
23. Zhu Y, <sup>†</sup> Yang J, <sup>†</sup> Yu L, De Jager P, Jin P, Bennett DA, **Zhao J.** \* Altered brain DNA hydroxymethylation is associated with TDP-43 and cognitive impairment.
24. Pratik Pimple, Jue Lin, Kobina Wilmot, Ibhara Al Mheid, **Jinying Zhao**, Cherie Rooks, Margarethe Goetz, Yan Sun, J. Douglas Bremner, Arshed Quyyumi, Elizabeth Blackburn, Viola Vaccarino. Adherence to the Mediterranean diet is associated with longer telomere length in patients with coronary artery disease

25. Peng H,<sup>†</sup> An Q,<sup>†</sup> Goldberg J, Vaccarino V, **Zhao J.**\* Promoter methylation of HPA-axis genes is associated with metabolic traits: a gene-family analysis in monozygotic twin pairs.
26. Peng H,<sup>†</sup> Fawn Y, Cole SA, Best LG, Roman MJ, Lee ET, Howard BV, **Zhao J.**\* Prospective association of allostatic load with leukocyte telomere length in American Indians: The Strong Heart Study
27. **Zhao J.**\* Zhu Y,<sup>†</sup> Roman MJ, Lin J, Matsuguchi T, Blackburn E, Lee ET, Howard BV. Impact of accelerated telomere attrition on cardiac structure and function in American Indians.
28. **Zhao J.**\* Zhu Y, Lin J, Matsuguchi T, Blackburn E, Lee ET, Howard BV. Leukocyte telomere length is associated with severe depression in Native American men: The Strong Heart Family Study.
29. **Zhao J.**\* An Q,<sup>†</sup> Zhu Y,<sup>†</sup> Cole SA, Best LG, Lin J, Matsuguchi T, Blackburn E, Lee ET, Howard BV. Statin use and leukocyte telomere length in American Indians.
30. **Zhao J.**\* Eilat-Adar S, Mete M, Matsuguchi T, Lin J, Blackburn E, Lee ET, Howard BV. Telomere attrition, dietary pattern and diabetes risk in American Indians: The Strong Hear Family Study.
31. Fretts AM, Eilat-Adar S, Lin J, Matsuguchi T, Blackburn E, Lee ET, Howard BV, **Zhao J.**\* Leukocyte telomere length and physical activity in American Indians: The Strong Heart Family Study.
32. Zhu Y,<sup>†</sup> An Q,<sup>†</sup> Matsuguchi T, Lin J, Blackburn E, Lee ET, Howard BV, **Zhao J.**\* Telomere attrition and glycemic control in American Indians: The Strong Hear Family Study.
33. Chen S,<sup>†</sup> Zhu Y,<sup>†</sup> Matsuguchi T, Lin J, Blackburn E, Howard BV, Lee ET, **Zhao J.**\* Leukocyte telomere length and psychosocial stress in American Indians: The Strong Heart Study.
34. **Zhao J.**\* Goldberg J, Bremner JD, Vaccarino V. Promoter methylation of human melanocortin receptor 4 gene is associated with urine levels of catecholamines in a monozygotic twin study.
35. An Q,<sup>†</sup> Zhu Y,<sup>†</sup> Howard BV, Lee ET, **Zhao J.**\* Joint association of epigenetic variation in the FTO gene with diabetes risk: a promoter-based analysis in monozygotic twins.
36. An Q,<sup>†</sup> Zhu Y,<sup>†</sup> Qin H, Howard BV, Lee ET, **Zhao J.**\* Epigenetic pathway association analysis of obesity-related genes with risk of diabetes: a monozygotic twin study.
37. Zhu Y,<sup>†</sup> Cole SA, Haack K, Best LG, Lee ET, Howard BV, **Zhao J.**\* Cumulative effect of 31 mitochondrial-related genetic variants on insulin resistance and type 2 diabetes in American Indians.



38. Zhu Y,<sup>†</sup> Cole SA, Haack K, Lee ET, Howard BV, **Zhao J.**\* Genetic variants involved in telomere maintenance are jointly associated with insulin resistance and diabetes in American Indians: a pathway association analysis.
39. Zhu Y,<sup>†</sup> Cole SA, Haack K, Howard BV, Best LG, Devereux RB, Lee ET and **Zhao J.**\* A gene-set analysis of 32 tagging SNPs in the leukotriene pathway with metabolic traits in American Indians: The Strong Heart Family Study.
40. **Zhao J.**\* Goldberg J, Qyuyumi A, Vaccarino V. Promoter methylation of the brain-derived neurotrophic factor gene is associated with flow-mediated dilation: a monozygotic twin study.
41. An Q,<sup>†</sup> Vaccarino V, Goldberg J, **Zhao J.**\* Promoter methylation of the MAOA gene is associated with fasting plasma glucose: a monozygotic twin study.
42. Peng H,<sup>†</sup> An Q,<sup>†</sup> Goldberg J, Vaccarino V, **Zhao J.**\* Glucocorticoid receptor gene methylation is associated with salivary cortisol in a monozygotic twin sample.

#### SELECTED SCIENTIFIC/PROFESSIONAL MEETINGS (\*Correspondence; <sup>†</sup>Trainee)

1. Peng H,<sup>†</sup> Yeh F, Zhang Y, de Simone G, Best LG, Lee ET, Howard BV, **Zhao J.** Plasminogen Activator Inhibitor-1 Predicts the Risk of Hypertension in American Indians: Findings from the Strong Heart Study. Accepted for oral presentation at the American Heart Association Scientific Sessions, New Orleans Nov 12-16, 2016
2. Zhao Q,<sup>†</sup> Zhu Y,<sup>†</sup> Yeh F, Lin J, Zhang Y, Calhoun D, Cole SA, Lee ET, Howard BV, **Zhao J.** Depression Is Associated with Leukocyte Telomere Length in American Indians: Findings from the Strong Heart Family Study. Accepted for poster presentation at the American Heart Association Scientific Sessions, New Orleans Nov 12-16, 2016
3. Hu Z, Wan P, Zhu Y,<sup>†</sup> Bennett DA, **Zhao J.** Xiong M. A novel causal methylation network approach to Alzheimer's disease. Human Genome Meeting 2016, Houston, February 28-March 2, 2016
4. Lin N, Wang P, Zhu Y,<sup>†</sup> **Zhao J.** Calhoun VD, Xiong M. Integrative large-scale causal network analysis of brain imaging and genomic data and its application to schizophrenia. Human Genome Meeting 2016, Houston, February 28-March 2, 2016
5. Peng H,<sup>†</sup> Fawn Y, Cole SA, Best LG, Roman MJ, Lee ET, Howard BV, **Zhao J.**\* Prospective Association of Allostatic Load with Incident CVD in American Indians: The Strong Heart Study. EPI/Lifestyle, American Heart Association, Phoenix, February 29-March 4, 2016.
6. Li C,<sup>†</sup> He J, Hixson JE, Gu D, Rao DC, Shimmin LC, Huang J, Gu CC, Chen J, Li J, Chen J, **Zhao J.** Kelly KN. Genomewide Gene-Potassium Interaction Analyses on Blood Pressure: the GenSalt study. EPI/Lifestyle, American Heart Association, Phoenix, February 29-March 4, 2016.
7. Kelly TN, Ajami NJ, Bazzano LA, **Zhao J.** He J. The Gut Microbiome Associates with Lifetime Cardiovascular Disease Risk Profile among Bogalusa Heart Study Participants. Gut microbiota diversity and specific microbial genera associate with cardiovascular

disease risk: Findings from the Bogalusa Heart Study. EPI/Lifestyle, American Heart Association, Phoenix, February 29-March 4, 2016.

8. An Q,<sup>†</sup> Zhu Y,<sup>†</sup> Goldberg J, Vaccarino V, **Zhao J.**\* Alterations in DNA methylation of circadian-related genes are associated with metabolic traits: a gene promoter-based and gene-set analysis in monozygotic twins. EPI/Lifestyle, American Heart Association, Phoenix, February 29-March 4, 2016.
9. Pimple PM, Wilmot K, Mheid IA, **Zhao J**, Lin J, Blackburn E, Rooks C, Goetz M, Sun Y, Bremner JD, Quyyumi AA, Vaccarino V. Adherence to the Mediterranean diet is associated with longer telomere length in patients with coronary artery disease. EPI/Lifestyle, American Heart Association, Phoenix, February 29-March 4, 2016.
10. **Zhao J.**\* Zhu Y,<sup>†</sup> Xiong M. A novel quadratically regularized canonical correlation analysis for genetic pleiotropic analysis of multiple phenotypes. The Human Genome Meeting, Houston, February 28 – March 2, 2016
11. Zhu Y,<sup>†</sup> An Q,<sup>†</sup> Best, LG, Lee ET, Howard BV, Devereux RB, Roman MJ, **Zhao J.**\* Novel metabolic markers for the risk of carotid plaque progression in American Indians. EPI/Lifestyle, American Heart Association, Baltimore, March 3-6, 2015.
12. An Q,<sup>†</sup> Vaccarino V, Goldberg J, **Zhao J.**\* Promoter Methylation of the MAOA Gene Is Associated with Fasting Plasma Glucose: A Monozygotic Twin Study. EPI/Lifestyle, American Heart Association, Baltimore, March 3-6, 2015.
13. **Zhao J.**\* Mete M, Desale S, Fretts AM, Cole SA, Best LG, Lin J, Matsuguchi T, Blackburn E, Lee ET, Howard BV. Life's simple 7 and telomere length in American Indians. EPI/Lifestyle, American Heart Association, Baltimore, March 3-6, 2015.
14. Zhu Y,<sup>†</sup> He J, Best LG, Lee ET, Howard BV and **Zhao J.**\* Metabolic predictors of type 2 diabetes in American Indians: The Strong Heart Family Study. The Nutrition, Physical Activity and Metabolism and the Cardiovascular Disease Epidemiology and Prevention, American Heart Association, San Francisco, March 18-21, 2014.
15. **Zhao J.**\* Zhu Y,<sup>†</sup> He J, Lin J, Matsuguchi T, Blackburn E, Lee ET, Howard BV. Metabolic profiles of biological aging in American Indians: The Strong Heart Family Study. The Nutrition, Physical Activity and Metabolism and the Cardiovascular Disease Epidemiology and Prevention, American Heart Association, San Francisco, March 18-21, 2014.
16. Chen S,<sup>†</sup> Yeh F, Lin J, Matsuguchi T, Blackburn E, Lee ET, Howard BV, **Zhao J.**\* Short leukocyte telomere length is associated with obesity in American Indians: The Strong Heart Family Study. The Nutrition, Physical Activity and Metabolism and the Cardiovascular Disease Epidemiology and Prevention, American Heart Association, San Francisco, March 18-21, 2014.
17. Li S,<sup>†</sup> Zhu Y,<sup>†</sup> Wang G, Yun M, McLachlan JA, Chen W, He J, Whelton PK, **Zhao J.**\* Urinary triclosan concentrations are associated with body mass index and waist circumference in US population, NHANES 2003-2010. The Nutrition, Physical Activity and Metabolism and the Cardiovascular Disease Epidemiology and Prevention, American Heart Association, San Francisco, March 18-21, 2014.

18. **Zhao J**, \* Zhu Y,<sup>†</sup> Xiong M. Gene-gene interaction analysis for next-generation sequencing. The 63<sup>rd</sup> Annual Meeting of the American Society of Human Genetics in Boston, October 22-26, 2013. (*Platform presentation*)
19. Chen S,<sup>†</sup> Roman RJ, Yeh F, Lin J, Matsuguchi T, Blackburn E, Devereux RB, Lee ET, Howard BV, and **Zhao J**. \* Prospective association of leukocyte telomere length and incident carotid atherosclerosis in American Indians. The American Heart Association Scientific Session, Dallas, Nov 16-20, 2013. (*Platform presentation, this abstract has been interviewed by the American Heart Association*)
20. Zhu Y,<sup>†</sup> Lee ET, Cole SA, Haack K, Best LG, Howard BV, **Zhao J**. \* Genetic variants involved in telomere maintenance and type 2 diabetes in American Indians: a pathway association analysis. The American Heart Association Scientific Session, Dallas, Nov 16-20, 2013.
21. Zhu Y,<sup>†</sup> Lee ET, Cole SA, Haack K, Best LG, Howard BV, **Zhao J**. \* Joint association of 31 mitochondrial variants with type 2 diabetes: The Strong Heart Family Study. The 63<sup>th</sup> Annual Meeting of the American Society of Human Genetics, Boston, Oct 22-26, 2013.
22. Yang J,<sup>†</sup> Zhu Y,<sup>†</sup> Cole SA, Haack K, Howard BV, Best LG, Mary RJ, Devereux RB, Lee ET and **Zhao J**. \* Joint impact of 61 genetic variants in seven nicotinic acetylcholine receptor genes on subclinical atherosclerosis in American Indians: a gene-set analysis. The Nutrition, Physical Activity and Metabolism and the Cardiovascular Disease Epidemiology and Prevention, American Heart Association, New Orleans, March 19-22, 2013 (*Platform presentation, Hot Of Press*)
23. **Zhao J**, \* Zhu Y,<sup>†</sup> Xiong M. A smooth functional principle component analysis of next generation sequencing data. The 62<sup>th</sup> Annual Meeting of the American Society of Human Genetics, San Francisco, Nov 6-10, 2012. (*Platform presentation*)
24. **Zhao J**, \* Goldberg J and Vaccarino V. Promoter methylation of glucocorticoid receptor gene is associated with subclinical cardiovascular disease: a monozygotic twin study. The Nutrition, Physical Activity and Metabolism and the Cardiovascular Disease Epidemiology and Prevention, American Heart Association, San Diego, March 13-16, 2012. (*Platform presentation. This abstract won the Rogers R. Williams Award for Genetic Epidemiology, presented by the American Heart Association, 2012*)
25. Yang J,<sup>†</sup> Cole SA, Haack K, Howard BV, Best LG, Mary RJ, Devereux RB, Lee ET and **Zhao J**. \* Joint impact of 61 genetic variants in seven nicotinic acetylcholine receptor genes on subclinical atherosclerosis in American Indians: a gene-set analysis. The Nutrition, Physical Activity and Metabolism and the Cardiovascular Disease Epidemiology and Prevention, American Heart Association, San Diego, March 13-16, 2012
26. Yang J,<sup>†</sup> Cole SA, Haack K, Howard BV, Best LG, Roman RJ, Devereux RB, Lee ET and **Zhao J**. \* A pathway analysis of 32 genetic variants in leukotriene genes and subclinical atherosclerosis in American Indians: the Strong Heart Family Study. The Nutrition,

Physical Activity and Metabolism and the Cardiovascular Disease Epidemiology and Prevention, American Heart Association, San Diego, March 13-16, 2012.

27. Yang J,<sup>†</sup> Cole SA, Haack K, Howard BV, Best LG, Devereux RB, Lee ET and **Zhao J**.<sup>\*</sup> Gene and pathway-based analysis of 61 genetic variants in the nicotinic acetylcholine receptor genes and insulin resistance in American Indians. The 61<sup>th</sup> Annual Meeting of the American Society of Human Genetics, Montreal, Quebec, Canada, October 11-15, 2011
28. **Zhao J**,<sup>\*</sup> Cowan LD, Yang J,<sup>†</sup> Zhang Y,<sup>†</sup> Cole SA, Haack K, Howard BV, Lee ET. Leukotriene haplotype, diet and insulin resistance: the Strong Heart Study. The Nutrition, Physical Activity and Metabolism and the Cardiovascular Disease Epidemiology and Prevention, American Heart Association, Atlanta, March 22-25, 2011
29. Yang J,<sup>†</sup> Cowan LD, Zhang Y,<sup>†</sup> Cole SA, Haack K, MacCluer JW, Howard BV, Lee ET, **Zhao J**.<sup>\*</sup> NOS3 genotype, dietary intake and insulin resistance: The Strong Heart Family Study. The Nutrition, Physical Activity and Metabolism and the Cardiovascular Disease Epidemiology and Prevention, American Heart Association, Atlanta, March 22-25, 2011
30. Yang J,<sup>†</sup> Zhang Y,<sup>†</sup> Cowan LD, Cole SA, Haack K, MacCluer JW, Howard BV, Lee ET and **Zhao J**.<sup>\*</sup> Cumulative association of 62 genetic variants in a smoking-metabolizing pathway with insulin resistance in American Indians: The Strong Heart Family Study. The Nutrition, Physical Activity and Metabolism and the Cardiovascular Disease Epidemiology and Prevention, American Heart Association, Atlanta, March 22-25, 2011
31. **Zhao J**,<sup>\*</sup> Forsberg CF, Yang J,<sup>†</sup> Goldberg J, Smith NL, Vaccarino V. MAOA methylation is associated with subclinical atherosclerosis in a monozygotic twin sample. American Heart Association Scientific Session, Chicago, IL, Nov 13-17, 2010
32. **Zhao J**,<sup>\*</sup> Wu X, Zhu Y,<sup>†</sup> Xiong M. A novel statistic for testing genetic interactions between linked loci. The 60<sup>th</sup> Annual Meeting of the American Society of Human Genetics, Washington, DC, Nov 2-6, 2010
33. Yang J,<sup>†</sup> Bouzyk M, Goldberg J, Vaccarino V, **Zhao J**.<sup>\*</sup> Interaction between monoamine oxidase A gene polymorphism and childhood emotional abuse on susceptibility to early atherosclerosis: a twin study. The 60<sup>th</sup> Annual Meeting of the American Society of Human Genetics, Washington, DC, Nov 2-6, 2010
34. **Zhao J**,<sup>\*</sup> Goldberg J, Bremner JD, Jones L, Bouzyk M, Tang W, Vaccarino V. Dietary intake modifies the effect of leukotriene A4 hydrolase gene on subclinical atherosclerosis. The 49<sup>th</sup> Cardiovascular Disease Epidemiology and Prevention, American Heart Association, Palm Harbor, FL, March 10-14, 2009 (Platform presentation. *This abstract was selected as Finalist for the Sandra Daugherty Award for Excellence in Cardiovascular Disease or Hypertension Epidemiology, presented by the American Heart Association, 2009*)
35. **Zhao J**,<sup>\*</sup> Goldberg J, Su S, Bouzyk M, Tang W, Bremner JD, Jones L, Murrah N, Vaccarino V. Leukotriene A4 hydrolase gene polymorphism is associated with

subclinical atherosclerosis. The 49th Cardiovascular Disease Epidemiology and Prevention, American Heart Association, Palm Harbor, FL, March 10-14, 2009

36. Su S, **Zhao J**, \* Bremner JD, Miller AH, Bouzyk M, Snieder H, Goldberg J, Vaccarino V. haplotypes of serotonin transporter gene associated with both depressive symptoms and interleukin-6 in middle-aged males: the twins heart study. The 49th Cardiovascular Disease Epidemiology and Prevention, American Heart Association, Palm Harbor, FL, March 10-14, 2009
37. **Zhao J**, \* Bremner JD, Bouzyk M, Tang W, Goldberg J, Afzal N, Murrah N, Jones L, Vaccarino V. Tryptophan hydroxylase gene haplotypes modify the effect of childhood emotional abuse on symptoms of depression, American Heart Association Scientific Session, Orlando, FL, Nov 14-18, 2009
38. **Zhao J**, \* Riyaz Patel,<sup>†</sup> A. Maziar Zafari, Viola Vaccarino, Arshed A. Quyyumi. A potential common genetic pathway linking depression to cardiovascular disease. The 58<sup>th</sup> Annual Meeting of the American Society of Human Genetics, Philadelphia, Nov 11-15, 2008
39. Luo L, Peng G, Siu H, Zhu Y,<sup>†</sup> Hu P, Hong S, **Zhao J**, Zhou X, Reveille J, Amos C, Jin L, Xiong M. Gene and pathway-based analysis second wave of GWAS. The 58<sup>th</sup> Annual Meeting of the American Society of Human Genetics, Philadelphia, Nov 11-15, 2008
40. **Zhao J**, \* Quyyumi AA, Patel R, Qureshi I, Warren F, Zafari AM, Veledar E, Onufrak S, Gulcher JR and Vaccarino V. Gender-Specific Association of Depression and a Haplotype in Leukotriene A4 Hydrolase Gene. The 48th Cardiovascular Disease Epidemiology and Prevention, American Heart Association, Colorado Springs, CO, March 13-15, 2007
41. Veledar E, Narayan V, Wenger N, **Zhao J**, Shaw L, Wilson P, Vaccarino V. Trends in Coronary Heart Disease (CHD) Incidence and Mortality Rates in US Women. The 48th Cardiovascular Disease Epidemiology and Prevention, American Heart Association, Colorado Springs, CO, March 13-15, 2007
42. **Zhao J**, \* Cheema FA, Bremner JD, Goldberg J, Su S, Snieder H, Maisano C, Jones L, Murrah N and Vaccarino V. Heritability of carotid intima-media thickness: a twin study. American Heart Association Annual Meeting, Chicago, Illinois, Nov 12-15, 2006 (*Platform presentation. This abstract won the Elizabeth Barrett-Connor Research Award in Epidemiology for Young Investigator, presented by the American Heart Association, 2006*)
43. **Zhao J**, \* Cheema FA, Reddy U, Bremner JD, Su S, Goldberg J, Snieder H, and Vaccarino V. Heritability of flow-mediated dilation: a twin study. The 47th Cardiovascular Disease Epidemiology and Prevention, American Heart Association, Orlando, FL, Feb 28-Mar 3, 2006

44. **Zhao J**, Jin L and Xiong M. Nonlinear tests for genome-wide association studies. The 55th Annual Meeting of the American Society of Human Genetics, Salt Lake City, Utah, Oct 25-29, 2005
45. Wang Y, **Zhao J**, Zhou X, Wang W, Jin L and Xiong MM(2005) Identification of genetic interaction networks. The 55th Annual Meeting of the American Society of Human Genetics, Salt Lake City, Utah, Oct 25-29, 2005
46. Xiong M, **Zhao J**, Boerwinkle E and Amos C. Nonlinear transmission/disequilibrium test. The 55th Annual Meeting of the American Society of Human Genetics, Salt Lake City, Utah, Oct 25-29, 2005
47. **Zhao J** and Xiong M. Global test for genome-wide association studies. The American Journal of Human Genetics, A511. The 54th Annual Meeting of the American Society of Human Genetics, Toronto, Ontario, Canada, 2004
48. Xiong M, **Zhao J**, Boerwinkle E. Dynamic models for quantitative genetics. The American Journal of Human Genetics, A511. The 54th Annual Meeting of the American Society of Human Genetics, Toronto, Ontario, Canada, Oct 26-30, 2004
49. Zhou X, **Zhao J**, Arnett FC, Xiong M. Candidate pathway approach to genetic studies of complex traits. The 53th Annual Meeting of the American Society of Human Genetics, Los Angeles, CA, Nov 4-8, 2003
50. Xiong M and **Zhao J**. Genetic and transcriptional analysis of metabolic networks. The 53th Annual Meeting of the American Society of Human Genetics, Nov 4-8, Los Angeles, CA, Nov 4-8, 2003
51. Li Y, Liu L, **Zhao J**, Zuo J, Fang F. *Pank4*, a novel pantothenate kinase gene is a candidate gene for type 2 diabetes mellitus. The 53th Annual Meeting of the American Society of Human Genetics, Los Angeles, CA, 2003
52. Wu G, **Zhao J**, Yang C, Wang H, Zuo J, Wang Y, Liu Z, Zhang Y, Shen Y, Qiang B, Huang W, Zhu C, Fang F. Association analysis of genetic polymorphisms in *sac*, *pank4*, *casp9*, and *cdc22* genes with type 2 diabetes in Han Chinese of Northern China. The 53th Annual Meeting of the American Society of Human Genetics, Los Angeles, CA, Nov 4-8, 2003
53. **Zhao J** and Xiong M. Genetic analysis of function-valued traits. The 53th Annual Meeting of the American Society of Human Genetics, Los Angeles, CA, Nov 4-8, 2003
54. **Zhao J** and Xiong M. Unbiased quantitative population association test. The 52th Annual Meeting of the American Society of Human Genetics, Baltimore, Maryland, Oct 15-19, 2002
55. Sun H, **Zhao J**, Du W, Wang H, Zuo J, Qiang B, Shen Y, Yao Z, Huang W, Chen Z, Xiong M, Fang F. SNP analysis of candidate genes associated with type 2 diabetes in

Chinese Han population. The 52th Annual Meeting of the American Society of Human Genetics, Baltimore, Maryland, Oct 15-19, 2002

56. **Zhao J** and Xiong M. The generalized  $T^2$  test for biomarker identification using gene expression data. The 51th Annual Meeting of the American Society of Human Genetics, San Diego, CA, Oct 12-16, 2001
57. Xiong M, **Zhao J**, Li J, E Boerwinkle. Dynamic models for mapping quantitative traits with time-dependent genetic effects. The 51th Annual Meeting of the American Society of Human Genetics, San Diego, CA, Oct 12-16, 2001
58. Xiong M, **Zhao J**, Jin L, Boerwinkle E. Fine-scale mapping of quantitative traits loci by internal mapping in human population. The 50<sup>th</sup> Annual Meeting of the American Society of Human Genetics, Philadelphia, PA, Oct 3-7, 2000
59. **Zhao J**, Amos C, Boerwinkle E, Xiong M. Multiple-marker locus and multiple trait-locus linkage disequilibrium mapping of quantitative trait loci with epistasis. The 50<sup>th</sup> Annual Meeting of the American Society of Human Genetics, Philadelphia, PA, Oct 3-7, 2000
60. **Zhao J**, Xiong M, Huang W, Wang H, Zuo J, Chen Z, Qiang B, Zhang ML, Du WN, Chen JL, Ding W, Yuan WT, Zhao Y, Xu HY, Jin L, Li YX, Sun Q, Liu QY, Fang FD. Type 2 diabetes susceptibility loci maps on chromosomes 1 and 20 in Chinese Han families. The 49<sup>th</sup> Annual Meeting of the American Society of Human Genetics, San Francisco, CA, Oct 19-23, 1999

### **INVITED TALKS**

- 4/8/2016      *Novel 'Omics' Biomarkers for Human Complex Diseases: Genomics, Epigenomics, Transcriptomics, and Metabolomics*  
Department of Epidemiology & Community Health, University of Minnesota, Minneapolis, MN
- 3/12/2015      *Novel Biomarkers for CVD and its Risk Factors*  
Emory University School of Medicine, Atlanta, GA
- 6/18/2015      *Brain DNA hydroxymethylome in Alzheimer's disease: a pilot study*  
Rush University Medical Center, Chicago, IL.
- 11/20/2014      *Novel 'omics' markers for CVD, diabetes and their risk factors*  
Department of Preventive Medicine, Northwestern University, Chicago, IL
- 7/16/2014      *Metabolomic profiling of CVD and diabetes: Findings from American Indians*  
Chinese Heart Conference, Beijing, China
- 9/4/2013      *Telomeres and epigenetic factors in CVD risk*

Department of Biostatistics, University of North Carolina, Chapel Hill, NC

- 3/12/2013 *Biological aging and diabetes risk in American Indians*  
Department of Biostatistics, Tulane University School of Public Health and Tropical Medicine, New Orleans, LA
- 3/28/2013 *Genetic and epigenetic determines for CVD and type 2 diabetes*  
Hayward Genetics Center, Tulane University School of Medicine, New Orleans, LA
- 4/16/2012 *Genetic mechanisms in Metabolic Disorders*  
Emory University School of Public Health, Atlanta, GA
- 9/6/2010 *Genetics of Type 2 Diabetes and Its Risk Factors*  
School of Medicine, University of Oklahoma HSC, Oklahoma City, OK
- 6/25/2009 *Genetic Determinants of Type 2 Diabetes and Its Related Phenotypes*  
Clinical Endocrinology and Metabolism Forum, Chinese Academy of Medical Science, Beijing, China
- 9/4/2009 *Genome-wide Linkage and Association Studies of Type 2 Diabetes*  
Endocrinology Research Conference  
University of Oklahoma Health Science Center, Oklahoma City, OK
- 10/16/2008 *Genetic Linkage and Association Analysis for Human Complex Disorders*  
Cardiovascular Research Institute, Morehouse School of Medicine, Atlanta, GA
- 3/13/2008 *Genetic Susceptibility to Coronary Artery Disease*  
Division of Biostatistics and Epidemiology  
Medical University of South Carolina, Charleston, SC

## **PROFESSIONAL SERVICE**

### **National**

#### ***NIH Study Sections (ad hoc)***

- 2016/10 ZEY1 VSN (02) 1, NEI Data Analysis and Epidemiology Grant Applications
- MESH Study Section, 2015
- KNOD Study Section, 2015
- IMST-R computational epigenomics study section, 2014
- Tobacco Centers of Regulatory Science (TCORS), 2013
- The Clinical and Integrative Cardiovascular Sciences (CICS), 2011-2014
- The Biomedical Computing and Health Informatics (BCHI), 2011-2012



- Special Emphasis - Research on Gulf War Veterans' Illnesses, 2011-2012
- Small Business Innovation Research (SBIR), 2012

#### ***American Heart Association***

- Abstract reviewer, EPI/NPAM Scientific Sessions, 2013
- Abstract reviewer, EPI/NPAM Scientific Sessions, 2014
- Abstract reviewer, EPI/NPAM Scientific Sessions, 2015

#### ***Ad hoc Reviewer for Peer-reviewed Journals (since 2010, partial list)***

Diabetes; Circulation Cardiovascular Genetics; Atherosclerosis; Blood; International Journal of Obesity; American Journal of Epidemiology; Europe Journal of Human Genetics; American Journal of Medical Genetics; Genetics; Human Genetics; BMC Genomics; Bioinformatics; Genetic Epidemiology; Metabolism, Genomics, Genome Research; PLOS One; PLOS Computational Biology; Statistical Applications in Genetics and Molecular Biology; Molecular Biology Reports; Schizophrenia Research

#### **University**

- ***Faculty Search Committee***  
Department of Epidemiology, School of Public Health and Tropical Medicine, Tulane University, New Orleans, LA, 2015, 2016
- ***MS in Outcomes and Comparative Effectiveness Program***  
Mentor and Co-Lead, Tulane University School of Public Health and Tropical Medicine, LA, 2015
- ***Appointment, Promotion and Tenure (APT) Committee***  
Tulane University School of Public Health and Tropical Medicine, LA, 2014
- ***Nominating Committee for the Faculty Reelections***  
Tulane University School of Public Health and Tropical Medicine, LA, 2014-2015
- ***Grant reviewer***  
The ADA Pathway competition panel, Tulane University, 2013
- ***Senator***  
Faculty Senate, University of Oklahoma Health Science Center, OK, 2011
- ***Committee Member***  
Professional Development Committee, University of Oklahoma HSC, OK, 2010-2012

#### **Other**

2015-present Member, Strong Heart Study (SHS) Steering Committee