

## CURRICULUM VITAE

Jinying Zhao, MD, PhD, FAHA  
Deans Endowed Chair and Professor  
Director, Center for Genetic Epidemiology

### Address

Office Address                      Department of Epidemiology  
   College of Public Health and Health Professions and College of  
   Medicine, University of Florida  
   2004 Mowry Road, CTRB Room 4230  
   Gainesville, FL 32610

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### Education

Bachelor of Medicine (Clinical Medicine, equivalent to M.D.), 1989  
Zhengzhou University School of Medicine  
Zhengzhou, China

Master of Science in Pathology, 1992  
Zhengzhou University School of Medicine  
Zhengzhou, China

Ph.D. in Molecular Genetics, 1999  
Peking Union Medical College and Chinese Academy of Medical Sciences  
Beijing, China

Ph.D. in Genetic Epidemiology & Statistical Genetics, 2005  
University of Texas Health Science Center at Houston  
Houston, TX

### Appointments

1992 – 1996                              Clinical Pathologist  
   Department of Pathology, Henan People's Hospital  
   Zhengzhou, China

2006 – 2009                              Assistant Professor  
   Department of Medicine  
   Emory University School of Medicine  
   Atlanta, GA

2009 – 2012	Associate Professor Department of Biostatistics and Epidemiology College of Public Health, University of Oklahoma Health Science Center, Oklahoma City, OK
2012 –2014	Associate Professor (with Tenure) Department of Epidemiology School of Public Health and Tropical Medicine Tulane University, New Orleans, LA
2014 – 2016	Professor (Tenured) Department of Epidemiology School of Public Health and Tropical Medicine Tulane University, New Orleans, LA
2016 – 2020	Dean's Professor (Preeminence hire) Director, Division of Genetic Epidemiology Department of Epidemiology, College of Public Health and Health Professions and College of Medicine, University of Florida, Gainesville, FL
2020 –	Deans Endowed Chair and Professor  Department of Epidemiology, College of Public Health and Health Professions and College of Medicine, University of Florida, Gainesville, FL
2020 –	Director, Center for Genetic Epidemiology University of Florida, Gainesville, FL

### **Leadership Training Experience**

2017-2018	Participated in the UF Academy for Emerging Leaders training workshop. This semester length workshop offers extensive training in leadership for approximately 20 UF faculty and professionals selected via a competitive application process.
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### **Awards and Honors**

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

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

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

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

Dean's Citation Award, Public Health and Health Professions, University of Florida, 2018

### **Professional Membership**

1999 - American Society of Human Genetics

2006 - American Heart Association

### **National Professional Services**

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

2011-2012 Special Emphasis - Research on Gulf War Veterans' Illnesses

2011-2012 The Biomedical Computing and Health Informatics (BCHI)

2012 -2013 Small Business Innovation Research (SBIR)

2011-2014 The Clinical and Integrative Cardiovascular Sciences (CICS)

2013 Tobacco Centers of Regulatory Science (TCORS)

2014 IMST-R computational epigenomics study section

2015 The Kidney, Nutrition, Obesity and Diabetes (KNOD) Study Section

2015 Biobehavioral Mechanisms of Emotion, Stress and Health (MESH) Study Section

2016 ZEY1 VSN (02) 1, NEI Data Analysis and Epidemiology Grant Applications

2017 ZDK1-GRB-2-M1 & M2, NIDDK

2017 ZHL1-CSR-1-M1, NHLBI

2017 ZES- LWJ-K-R, NIEHS

2017 ZDK1-GRB-2-O1 & O2, NIDDK

2017 ZRG1-PSE-P-02, CSR

2018 ZDK1-GRB-2-M1 & M2, NIDDK

2019 DEM Fellowship Review Panel, NIDDK

2019 NIDDK ZDK1 GRB-2 (M1&2) Review Panel

2019 R35 (RIVER) Review Panel, NIEHS

2019 ZRG1 MOSS-R (70) NIH Director's New Innovator Award Stage 1 Review Panel, NIH

2020 ZRG1 PSE- E 02 (Chronic disease and epidemiology), NIH

American Heart Association

2013-2015 Abstract reviewer, EPI/NPAM Scientific Sessions

Editorial Board

2009- Epidemiology: Open Access

Ad Hoc Journal Reviewer (since 2010, partial list)

American Journal of Human Genetics; American Journal of Epidemiology; International Journal of Epidemiology; Genetic Epidemiology; Diabetes; Diabetes Care; Circulation; International Journal of Obesity; Europe Journal of Human Genetics; Epigenetics; Aging; Bioinformatics; Molecular Psychiatry; JACC; PLOS Genetics; PLOS Med; PLOS Computational Biology & (multiple others)

Other National Professional Services

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

2018- Member, The National Heart, Lung, and Blood Advisory Council (NHLBAC) Working Group on Emerging Issues in Data Sharing (EIDS), appointed by the Director of NHLBI

**Institutional Services**

University of Florida

2016 - Faculty Search Committee, Department of Epidemiology

2016 - Curriculum Committee, Department of Epidemiology

2016 - TAC - TL1 Advisory Committee, CTSI

2017 - Executive/Operations Committee, Department of Epidemiology

2017 - Gen Med T32 Executive Committee

2018 - Academic Assessment Committee, University of Florida

2018 - Working Group on Faculty Assistance with Proposals, UF Office of Research

2018 - 2019 Chair, Faculty Search Committee, Department of Epidemiology

2020 - ROF fund Basic Biomedical Sciences Standing Committee

Tulane University

2014 – 2016 Appointment, Promotion and Tenure (APT) Committee, School of Public Health and Tropical Medicine

2014 – 2016 Faculty Search Committee, Department of Epidemiology, School of Public Health and Tropical Medicine

2015 – 2016 Nominating Committee for the Faculty Reelections, School of Public Health and Tropical Medicine

2015 – 2016 Mentor and Co-Lead, MS in Outcomes and Comparative Effectiveness Program

School of Public Health and Tropical Medicine

2015 – 2016 Mentor and Co-I, COBRE Program, School of Public Health and Tropical Medicine

University of Oklahoma Health Science Center

2010 - 2011 Senator, Faculty Senate, OUHSC

2010 - 2012 Professional Development Committee, OUHSC

**Graduate Courses Taught**

University of Florida

2017- Genetic Epidemiology (Course master, 3 credit hours)  
Department of Epidemiology, PPHP, University of Florida

Tulane University

2012- 2016 Genetic Epidemiology (Course master, 3 credit hours)  
Department of Epidemiology,  
School of Public Health and Tropical Medicine, Tulane University

University of Oklahoma Health Science Center

2010-2012 Statistical Methods in Genetic Epidemiology (Course master, 3 credit hours)  
Department of Biostatistics and Epidemiology  
College of Public Health, University of Oklahoma HSC

2011-2012 Molecular and Genetic Epidemiology (Course master, 3 credit hours)  
Department of Biostatistics and Epidemiology  
College of Public Health, University of Oklahoma HSC

2009-2012 Cancer Epidemiology (3 credit hours)  
Department of Biostatistics and Epidemiology  
College of Public Health, University of Oklahoma HSC

2010-2011 Problems in Biostatistics and Epidemiology (3 credit hours)  
Department of Biostatistics and Epidemiology  
College of Public Health, University of Oklahoma HSC

**Academic Advising and Mentoring**

PhD Committees Chair

1. Qiang An (2013-2015)  
Department of Epidemiology  
School of Public Health and Tropical Medicine, Tulane University

2. Yun Zhu (2014-2016)  
Department of Epidemiology  
School of Public Health and Tropical Medicine, Tulane University
3. Yun Zhu (2016-2018)  
Department of Epidemiology  
College of Public Health and Health Professions and College of Medicine,  
University of Florida
4. Pooja Subedi (2017- )  
Department of Epidemiology  
College of Public Health and Health Professions and College of Medicine  
University of Florida
5. Joseph Struzeski (2019- )  
Department of Epidemiology  
College of Public Health and Health Professions and College of Medicine  
University of Florida
6. Wenjie Zeng (2019- )  
Department of Epidemiology  
College of Public Health and Health Professions and College of Medicine  
University of Florida

#### PhD Dissertation Committees

1. Tiffany A. Brunson (2006 – 2010)  
Cardiovascular Research Institute  
Morehouse School of Medicine, Atlanta, GA
2. Isfahan Chambers (2006 – 2010)  
Cardiovascular Research Institute  
Morehouse School of Medicine, Atlanta, GA
3. Changwei Li (2013 – 2015)  
Department of Epidemiology, School of Public Health and Tropical Medicine, Tulane  
University, New Orleans, LA
4. Yu Deng (2014 – 2016)  
Department of Biostatistics, University of North Carolina at Chapel Hill, NC
5. Weiwei Ouyang (2014 – 2016)  
Department of Biostatistics and Bioinformatics  
School of Public Health and Tropical Medicine, Tulane University, New Orleans, LA
6. Sheldon Waugh (2016-2017)  
Department of Epidemiology  
College of Public Health and Health Professions and College of Medicine, UF
7. Zhaoyi Chen (2016 -2019)  
Department of Epidemiology, College of Public Health and Health Professions, UF
8. Yi Zheng (2018 -)  
Department of Epidemiology, College of Public Health and Health Professions, UF
9. Yimei Huang (2020 -)

Department of Pharmacotherapy and Translational Research, College of Pharmacy,  
University of Florida

10. Akemi Wijayabahu (2020 -)  
Department of Epidemiology, College of Public Health and Health Professions, UF

Postdoctoral Fellows Mentored

Jingyun Yang, PhD Current Position:	(2009-2011) Assistant Professor, Rush University Medical Center, Chicago, IL
Shufeng Chen, MD, PhD Current Position:	(2013-2014) Professor, Peking University Medical, College, Beijing, China
Hao Peng, PhD Current Position:	(2015-2017) Associate Professor, Soochow University, Suzhou, China
Stefano Nembrini, PhD Current Position:	(2017-2018) Biostatistician, College of Medicine, University of Florida, Gainesville, FL
Lewen Yang, PhD Current Position:	(2018-2019) Senior Scientist, Guangzhou Regenerative Medicine and Health Guangdong Laboratory Guangzhou, China

Junior Faculty Mentored at UF (Primary Mentor)

1. Hui Hu, PhD (2016 – present )  
Assistant Professor, Department of Epidemiology, UF PHHP & COM
2. Huaizhen Qin, PhD (2018 – present)  
Research Assistant Professor, Department of Epidemiology, UF PHHP & COM
3. Zhiguang Huo, PhD (2017 – present)  
Assistant Professor, Department of Biostatistics, UF PHHP & COM
4. Yun Zhu, PhD (2019 –2020 )  
Research Assistant Scientist, Department of Epidemiology, UF PHHP & COM

MS, MPH Students (Academic Advisor, partial list, since 2012)

Department of Epidemiology, Tulane University:

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

Department of Epidemiology, University of Florida:

Erica Swilley, Dakota Derry, Lara Saikaly, Emily Klann, Yosra Hagag

### Active Grants

1R01AG064786 (Zhao PI) 09/01/2019 - 08/30/2024  
 NIH/NIA \$3,676,978  
 Genome-wide mapping and integrative analysis of DNA 6mA methylome in human AD brain

The goal of this project is to examine the potential causal role of 6mA in AD neuropathology. Innovative statistical and bioinformatics tools for multi-omics data integration will also be developed in this project.

7RF1AG052476 (Zhao PI) 06/15/2016 - 05/31/2021  
 NIH/NIA \$3,721,756  
 Genome-wide profiling of brain DNA hydroxymethylome in Alzheimer's disease

The goal of this project is to generate the first detailed map for a new layer of epigenetic marker (5-hmC) in 1,200 postmortem brain tissue samples and examine its potential role in AD neuropathology.

1R01DK107532 (Zhao PI) 08/01/2016 - 07/30/2020  
 NIH/NIDDK \$3,076,642  
 Novel metabolic predictors of diabetes in American Indians

The goal of this project is to identify novel metabolic markers predictive of early onset and progression of type 2 diabetes in American Indians, a minority group suffering from the highest prevalence and incidence of type 2 diabetes. This is the first large-scale longitudinal profiling of lipidomics and metabolomics in over 7,000 plasma samples. Innovative tools for big data and trans-omics will be developed and applied to identify novel mechanistic markers tailored to the American Indian communities.

R01MH097018 (Zhao PI) 08/15/13-07/31/2020  
 NIH/NIMH \$3,127,223  
 Epigenetic determinants for depression: a monozygotic discordant twin study

The goal of this project is to decipher the epigenetic mechanisms implicated in the pathogenesis of major depression using a monozygotic discordant twin design. A total of 180 twin pairs discordant on major depression will be recruited and deeply phenotyped (both clinically and molecularly). Innovative statistical and bioinformatics approaches will be used to identify potential causative epigenetic mechanisms underlying major depression.

RF1AG052476S1 (Zhao PI) 01/15/2019-05/31/2021  
 NIH/NIA \$340,882  
 Genome-wide profiling of brain DNA hydroxymethylome in Alzheimer's disease

The goal of this supplementary grant is to develop novel statistical and bioinformatics algorithms for big data and integrative multi-omics analysis of brain aging and Alzheimer's disease.



R01MH097018-06S1 (Zhao PI) 08/15/2013-07/31/2020  
NIH/NIMH \$63,000  
Epigenetic determinants for depression: a monozygotic discordant twin study

The goal of this supplementary grant is to request additional funds for a long-term storage of biospecimen collected in the twin study. Partial funds will also be used for novel biomarker assays.

DRPD-ROF2017 (Zhao PI) 06/01/2018-05/31/2020  
UF Office of Research \$95,000  
Integrated multiomics analysis of MDS

The goal of this pilot grant is to collect preliminary data that will support the application of NIH grant proposal(s) for deep molecular phenotyping of MDS.

17SDG33630165 (Hu PI) 07/01/2017-06/30/2020  
American Heart Association (AHA)  
The Total Environment and Hypertensive Disorders of Pregnancy: A Precision Public Health Approach  
Role: Primary mentor

The goals of this training grant are to: 1) promote career development for Dr. Hu to become an independent investigator in data science; and 2) generate preliminary data in support of larger grant applications.

R01MD011727 (Kertes PI) 08/14/2017-04/30/2022  
NIH/NIMHD  
Epigenetic mechanisms of emotional/behavioral health among impoverished African-American youth  
Role: Co-Investigator

The goal of this project is to examine whether and how epigenetic mechanisms mediate the effects of negative emotional/behavioral health on chronic disease outcomes among African-American youth.

5T32HG008958 (Johnson PI) 01/01/2018-12/31/2022  
NIH/NHGRI  
Training Program for Applied Research and Development in Genomic Medicine (Johnson)  
Role: Faculty Mentor & Executive Committee Member

The goal of this training grant is to foster the career of junior investigators (MDs, PhDs, PharmDs, and other clinical specialists at the doctoral level) who are interested in genomic/translational science and precision medicine.

R01DK101505 (Kelly PI) 08/21/2015 - 05/31/2020  
 NIH/NIDDK  
 Whole-exome sequencing study of diabetic nephropathy  
 Role: Co-Investigator

The overall objective of this study is to identify novel genes and functional variants associated with diabetic nephropathy (DN) by conducting whole-exome sequencing, follow-up targeted sequencing, and replication studies among DN cases and controls of African and European ancestry. (Relinquished due to leaving Tulane)

P20GM109036-01A1 (He PI) 03/10/2016 - 02/28/2021  
 NIH/NIGMS  
 Tulane COBRE for Clinical and Translational Research in Cardiometabolic Diseases  
 Role: Faculty mentor & Co-Investigator

The long-term goal of this COBRE application is to promote and increase clinical, translational and implementation research in cardiometabolic diseases at Tulane University by establishing a Center of Excellence for Clinical, Translational and Implementation Research in Cardiometabolic Diseases. (Relinquished due to leaving Tulane)

**Pending Consideration for Funding**

1R01AG068865-01 (Zhao PI) 08/01/2020 - 07/30/2025  
 NIH/NIA  
 Gut microbiome, aging and cardiometabolic diseases in American Indians

The goal of this project is to identify key gut microbiota features associated with aging and cardiometabolic diseases in American Indians in the Strong Heart Study (SHS). The project will collect fecal samples from about 2,200 participants and conduct deep metagenomic sequencing, followed by sophisticated statistical and bioinformatics analysis to identify functional features associated with accelerated aging and cardiometabolic diseases including diabetes, obesity, cardiovascular disease, chronic kidney disease and their risk factors.

**Pending Grant Proposals**

1R01HL157529-01 (Zhao PI) 0/01/2021-03/31/2025  
 NHLBI/NIH \$2,851,053  
 Gut microbiome and cardiometabolic health in American Indians

The goal of this project is to identify gut microbiome signatures of cardiometabolic health in American Indians using state-of-the-art molecular and statistical techniques.

1R01 MD011745 - 01A1 (Zhao PI) 07/01/2019-06/30/2024  
 NIH/NIMHD \$3,795,030  
 Genome-wide profiling of socioenvironmental exposome in risk of diabetes among Hispanics/Latinos.

The goals of this project is to identify modifiable genes and biological pathways through which risk and protective socioenvironmental factors become biologically embedded into diabetes risk, and identify effective, culturally-tailored prevention or intervention strategies to combat diabetes among the understudied Hispanic/Latino communities.

**Completed Research Projects**

1R01DK091369 (Zhao PI) 09/01/2011-05/31/2017  
 NIH/NIDDK \$1,093,562  
 Telomere attrition and diabetes risk in American Indians

The goal of this project is to examine the role of accelerated telomere shortening in diabetes pathogenesis, and determine the clinical utility of leukocyte telomere length in predicting diabetes risk among American Indian communities.

1R21HL092363-01A2 (Zhao PI) 09/30/2009 - 06/30/2013  
 NIH/NHLBI \$402,875  
 Genetic variations in the HPA axis and comorbidity of depression and CVD

The goal of this project is to identify genetic variants involved in the stress-related pathways and examine their roles in linking depression to cardiovascular disease.

1K01AG034259 (Zhao PI) 09/15/2009 - 08/31/2013  
 NIH/NIA \$525,481  
 Biological aging, mitochondrial variants and coronary artery disease

The goal of this grant is to foster the career development of Dr. Zhao as an independent investigator in the areas of genetic epidemiology, statistical genetics, bioinformatics, and data science.

AHA 0730100N (Zhao PI) 01/01/2007 - 08/31/2011  
 American Heart Association \$260,000  
 Common genetic pathways linking depression to cardiovascular disease: a twin study

The goal of this grant is to foster the career development of Dr. Zhao in the area of cardiovascular genetic epidemiology and statistical genetics.

ACTSI-KL2 (Zhao PI) 04/15/2008 - 03/31/2010  
 NIH/ACTSI \$168,668  
 Role of mitochondrial polymorphisms in CAD and adverse cardiovascular outcomes

The goal of this career development grant is to accelerate the career development of Dr. Zhao in the area of cardiovascular genetic epidemiology and generate preliminary data in support of NIH grants applications.

Oklahoma Tobacco Research Center (Zhao PI) 7/1/2009-6/30/2011 \$55,000  
 Genotype-specific effect of cigarette smoking on CAD in American Indians

The goal of this project is to examine gene – smoking interactions implicated in coronary artery disease among American Indians.

Emory University Heart and Vascular Center (Zhao PI) 7/1/2007-6/30/2009 \$300,000  
 Blood and tissue-banking for heart and vascular diseases: The Emory Heart and Vascular Center's Genomic Platform

The goal of this project is to establish a biobank of heart and vascular tissues that can be used for multiomics analysis and precision medicine of cardiovascular diseases.

Emory Center for Research on Symptoms Interactions and Health Outcomes

Emory University (Zhao PI) 7/1/07-6/30/08 \$30,000  
Genetic pathways in depressive symptoms susceptibility

The goal of this project is to generate preliminary data and identify genetic pathways associated with depressive symptoms.

Emory University Research Committee (Zhao PI) 01/01/2008 -12/30/2008  
Emory University \$25,000  
Genetic pathways in coronary artery disease susceptibility

The goal of this project is to collect pilot data and identify genetic pathways implicated in CVD.

**Peer-Reviewed Publications** (Before 1992. In reverse chronological order. \*Corresponding author; † Trainee)

1. Hu H, † **Zhao J**, Savitz DA, Prospero M, Zheng Y, Pearson TA. An external exposome-wide association study of hypertensive disorders of pregnancy. *Environ Int* 2020; 141: 105797. doi: 10.1016/j.envint.2020.105797. Epub 2020 May 12
2. Hu Z, Jian R, Wang J, Wang P, Zhu Y, † **Zhao J**, De Jager P, Bennett DA, Jin L, Xiong M. Shared causal paths underlying Alzheimer's dementia and type 2 diabetes. *Sci Reports* 2020 Mar 5;10(1):4107. doi: 10.1038/s41598-020-60682-3.
3. Zheng Y, Chen Z, Pearson T, **Zhao J**, Prospero M, Hu H<sup>†</sup>. Design and Methodology Challenges of Environment-Wide Association Studies: A Systematic Review. *Environ Res.* 2020 Apr; 183:109275. doi: 10.1016/j.envres.2020.109275
4. Hu H<sup>†</sup>, Jiang B, **Zhao J**. Ambient Air Pollution and Preeclampsia: Looking Back and Moving Forward. *Hypertension.* 2020;75(3):618-619. doi: 10.1161/HYPERTENSIONAHA.119.13269
5. Huo Z<sup>†</sup>, Lei Y, Yang J<sup>†</sup>, Zhu Y<sup>†</sup>, Bennett DA, **Zhao J**.<sup>\*</sup> Blood and brain metabolome for Alzheimer's dementia: findings from a targeted metabolomics analysis. *Neurobiol Aging.* 2020 Feb; 86:123-133. doi: 10.1016/j.neurobiolaging.2019.10.014
6. Subedi S<sup>†</sup>, Nembrini S<sup>†</sup>, An Q<sup>†</sup>, Zhu Y<sup>†</sup>, Peng H<sup>†</sup>, Yeh F, Cole SA, Rhoades DA, Lee ET, **Zhao J**.<sup>\*</sup> Telomere length and cancer mortality in American Indians: The Strong Heart Study. *Geroscience.* 2019;41(3):351-361.
7. Zhu Y<sup>†</sup>, Strachan E, Fowler E, Bacus T, Roy-Byrne P, **Zhao J**.<sup>\*</sup> Genome-wide profiling of DNA methylome and transcriptome in peripheral blood monocytes for major depression: a monozygotic discordant twin study. *Translational Psychiatry.* volume 9, Article number: 215 (2019)
8. Huo Z<sup>†</sup>, Zhu L, Ma T, Liu H, Han S, Liao D, **Zhao J**, Tseng G. Two-way horizontal and vertical omics integration for disease subtype discovery. *Stat Biosci* **12**, 1–22 (2020). <https://doi.org/10.1007/s12561-019-09242-6>
9. Qin H, † **Zhao J**, Zhu X. Identifying rare variant associations in admixed populations. *Sci Rep.* 2019; 9: 5458.

10. Sullivan S, Hammadah M, Al Mheid I, Shah A, Sun Y, Kutner M, Ward L, Blackburn E, **Zhao J**, Lin J, Bremner JD, Quyyumi AA, Vaccarino V, Lewis T. An Investigation of Racial/Ethnic and Sex Differences in the Association between Experiences of Everyday Discrimination and Leukocyte Telomere Length among Patients with Coronary Artery Disease. *Psychoneuroendocrinology* . 2019;106:122-128.
11. Qin H, <sup>‡</sup> Niu T, **Zhao J**. Identifying multi-omics causers and causal pathways for complex traits. *Front. Genet.* 2019 10:110. doi: 10.3389/fgene.2019.00110
12. Peng H<sup>‡</sup>, Zhu Y<sup>‡</sup>, Goldberg J, Vaccarino V, **Zhao J**<sup>\*</sup>. DNA methylation of five core circadian genes jointly contributes to glucose metabolism: a gene-set analysis in monozygotic twins. *Front. Genet.* 2019 10:329. doi: 10.3389/fgene.2019.00329
13. Huo Z, <sup>‡</sup> Zhu Y, <sup>‡</sup> Yu L, Yang J, De Jager P, Bennett DA, **Zhao J**<sup>\*</sup>. DNA methylation variability in Alzheimer's disease. *Neurobiology of Aging* 2019; 76: 35-44
14. Grau-Perez M, **Zhao J**, Pierce B, Goessler W, Francesconi KA, Zhu Y, <sup>‡</sup> An Q, <sup>‡</sup> Umans J, Best L, Cole SA, Navas-Acien, A, Tellez-Plaza M. Urinary metals and leukocyte telomere length in American Indian communities: The Strong Heart and the Strong Heart Family Study. *Env Pollution* 2019; 246:311-318
15. Strachan E, **Zhao J**, Roy-Byrne P, Fowler E, Bacus T. Study design and rationale for the Mood and Methylation Study: a platform for multi-omics investigation of depression in twins. *Twin Res Hum Genet* 2018; 28:1-7
16. Spratlen MJ, Maria Grau-Perez M, Umans JG, Yracheta J, Best LG, Francesconi K, Goessler W, Bottiglieri T, Gamble MV, Cole SA, **Zhao J**, Navas-Acien A. Targeted metabolomics to understand the association between arsenic metabolism and diabetes-related outcomes: preliminary evidence from the Strong Heart Family Study. *Environmental Research.* 2018;168:146-157
17. Peng H<sup>‡</sup>, Zhu Y<sup>‡</sup>, Goldberg J, Vaccarino V, **Zhao J**<sup>\*</sup>. Childhood trauma, DNA methylation of stress-related genes, and depression: findings from two monozygotic twin studies. *Psychosomatic Medicine* 2018; 80 (7): 599-608
18. Chen X, Wang Y, Leeman, RF, Li F, **Zhao J**, Bruijnzeel AW. Video-assisted topographical measurement of cigarette smoking: Exploration of an objective approach to evaluate nicotine dependence. *Tob. Prev. Cessation.* 2018;4:21.
19. Fretts AM, Mete M, Howard BV, Best LG, Siscovick DS, Eilat-Adar S, **Zhao J**. Physical activity and telomere length in American Indians: The Strong Heart Study. *Eur J Epidemiol* 2018; 33(5):497-500
20. Li C,<sup>‡</sup> He J, Chen J, **Zhao J**, Gu D, Hixson JE, Rao DC, Jaquish CE, Rice TK, Sung YJ, Kelly TN. Genome-wide gene-potassium interaction analyses on blood pressure: The GenSalt Study. *Circ Cardiovasc Genet.* 2017;10 (6). pii: e001811.
21. Suchy-Dicey AM, Muller C, Madhyastha T, Shibata D, Cole SA, **Zhao J**, Longstreth Jr WT, Buchwald D. Telomere length and MRI findings of vascular brain injury and central brain atrophy: the Strong Heart Study. *Am J Epidemiol* 2018; 187(1):1231-1239
22. **Zhao J**<sup>\*</sup>, Zhu Y,<sup>‡</sup> Yang J,<sup>‡</sup> Li L, Wu H, De Jager P, Jin P, Bennett DA. A genome-wide profiling of brain DNA hydroxymethylome in Alzheimer's disease. *Alzheimers Dement.* 2017 Jun;13(6):674-688.

23. Mukerjee S, Zhu Y,<sup>‡</sup> Zsombok A, Mauvais-Jarvis F, **Zhao J**, Lazartigues E. Perinatal exposure to western diet programs autonomic dysfunction in the male offspring. *Cell Mol Neurobiol*. 2018; 38(1):233-242
24. Peng H,<sup>‡</sup> Fawn Y, Cole SA, Lyle BG, Lin J, Blackburn E, Lee ET, Howard BV, **Zhao J**.<sup>\*</sup> Plasminogen activator inhibitor-1 is associated with leukocyte telomere length in American Indians: Findings from the Strong Heart Family Study. *J Thromb Haemost*. 2017 Jun;15 (6):1078-1085. doi: 10.1111/jth.13689
25. Peng H,<sup>‡</sup> Yeh F, de Simone G, Best LG, Lee ET, Howard BV, **Zhao J**.<sup>\*</sup> Relationship between plasma plasminogen activator inhibitor-1 and hypertension in American Indians: findings from the Strong Heart Study. *J Hypertens*. 2017; 35(9):1787-1793
26. Deng Y,<sup>‡</sup> Zeng D, **Zhao J**, Cai J. Proportional hazards model with a change point for clustered event data. *Biometrics*. 2017; 73 (3):835-845
27. Li C,<sup>‡</sup> Kim YK, Dorajoo R, Li H, Lee IT, Cheng CY, He M, Sheu WH, Guo X, Ganesh SK, 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, Han BG, Sim X, Sun L, **Zhao J**, Chen CH, Kumari N, He Y, Taylor KD, Raffel LJ, Moon S, Rotter JI, Ida Chen YD, Wu T, Wong TY, Wu JY, Lin X, Tai ES, Kim BJ, Kelly TN. Genome-wide association study meta-analysis of long-term average blood pressure in east Asians. *Circ Cardiovasc Genet*. 2017;10(2):e001527
28. Hammadah M, Al Mheid I, Wilmot K, Ramadan R, Abdelhadi N, Alkhoder A, Obideen M, Pimple PM, Levantsevych O, Kelli HM, Shah A, Sun YV, Pearce B, Kutner M, Long Q, Ward L, Ko YA, Hosny Mohammed K, 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. *Circ Res*. 2017;120 (7):1130-1138.
29. Peng H,<sup>‡</sup> Mete M, Desale S, Fretts AM, Cole SA, Lyle BG, Lin J, Blackburn E, Lee ET, Howard BV, **Zhao J**.<sup>\*</sup> Ideal cardiovascular health and leukocyte telomere length in American Indians: The Strong Heart Study. *Eur J Epidemiol* 2017 Jan; 32 (1):67-75. doi: 10.1007/s10654-016-0199-6
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**Manuscripts under review or in preparation** (\* Trainee; \*Corresponding author)

1. Huo Z<sup>‡</sup>, Rana BK, Elman JA, Dong R, Engelman CD, Johnson SC, Franz CE, Lyons MJ, Kremen WS, **Zhao J**.\* Metabolomic profiling of cognitive aging in midlife. (*under review*)
2. Darst B, Huo Z<sup>‡</sup>, Jonaitis EM, ReKoscik RL, Clark LR, Lu Q, Kremen WS, Franz CE, Rana B, Lyons MJ, Hogan KJ, **Zhao J**, Johnson JS, Engelman CD. Metabolites associated with early cognitive changes implicated in Alzheimer's disease. *Journal of Alzheimer's Disease* (*under review*)
3. Zheng Y<sup>‡</sup>, Jiang B, **Zhao J**, Lipkind H, Pearson T, and Hu H<sup>‡</sup>. Racial and Geographic Disparities in Cardiovascular Health among Pregnant Women in the United States. (*under review*)
4. Chen Z<sup>‡</sup>, Otero CM, Hicks A, Manini TM, **Zhao J**, Prosperi M. Predicting the risk of rheumatoid arthritis in at-risk population using demographic, clinical and socio-ecological domains: a machine learning-aided approach. (*under review*)
5. Chen Z<sup>‡</sup>, Otero CM, Hicks A, Manini TM, **Zhao J**, Prosperi M. Clinical correlates of rheumatoid arthritis: A 10-year statewide big data analysis. (*under review*)
6. Huo Z,<sup>‡</sup> Zhang Y, Zeng W<sup>‡</sup>, Qin H<sup>‡</sup>, Zhu J, Umans JG, Wohlgemuth G, Pedrosa D, DeFelice B, Cole SA, Zhang Y, Lee ET, Howard BV, Fiehn O, **Zhao J**.\* A large-scale longitudinal lipidomics profiling of type 2 diabetes in American Indians (in preparation)
7. Zeng W<sup>‡</sup>, Huo Z<sup>‡</sup>, Zhang Y, Qin H<sup>‡</sup>, Cole SA, Zhu J, Franceschini N, Umans JG, Lee ET, Howard BV, Fiehn O, **Zhao J**.\* Longitudinal profiling of fasting plasma lipidome for risk of CKD in American Indians (in preparation)
8. Subedi P<sup>‡</sup>, Huo Z<sup>‡</sup>, Zhang Y, Qin H<sup>‡</sup>, Cole SA, Zhu J, Umans JG, Lee ET, Howard BV, Fiehn O, **Zhao J**.\* Plasma lipidomic signature of risk for cardiovascular diseases: a longitudinal study in American Indians (in preparation)

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10. Subedi P<sup>‡</sup>, Qin H<sup>‡</sup>, Cole SA, Plaza MT, Domingo-Relloso A, Haack K, Fallin D, Tang WY, Liu S, Needham BL, Lee ET, Umans JG, Howard BV, Liu Y, Aviv A, Levy D, Vasani RS, Navas-Acien A, **Zhao J.**\* Telomere length, DNA methylation and risk for cardiovascular disease: findings from a meta-EWAS in four prospective cohorts (in preparation)
11. Subedi P<sup>‡</sup>, Struzeski JB<sup>‡</sup>, Qin H<sup>‡</sup>, Deen J, Cole SA, Zhu J, Umans JG, Lee ET, Howard BV, Fiehn O, **Zhao J.**\* Plasma lipidomic signature of major depression in American Indians: The strong heart family study (in preparation)
12. Zeng W<sup>‡</sup>, Huo Z<sup>‡</sup>, Cole SA, Zhu J, Lee ET, Howard BV, Fiehn O, **Zhao J.**\* Lipidomic profiling identifies signatures of risk for hypertension: a longitudinal study in American Indians (in preparation)
13. Huo Z<sup>‡</sup>, Peng H,<sup>‡</sup> Anton S, Gang Hu, Brantley P, **Zhao J.**\* Altered DNA methylation in response to bariatric surgery predicts diabetes remission in severely obese patients: findings from a pilot study. (in preparation)
14. Subedi P<sup>‡</sup>, Tellez Plaza Maria, Domingo A, Haack K, Fallin D, Tang WY, Cole SA, Lee ET, Howard BV, Navas-Acien A, **Zhao J.**\* DNA methylation, leukocytes telomere length and CVD: meta-analysis in multi-ethnic groups (in preparation)
15. Zhu Y,<sup>‡</sup> Lei Y, Yang J, De Jager P, Bennett DA, **Zhao J.**\* Late-life depression and AD: is epigenetics a potential causal link? (in preparation)
16. Qin H<sup>‡</sup>, Huo Z<sup>‡</sup>, Lei Y, Yang J, Bennett DA, **Zhao J.**\* Differential methylation ages across multi-brain regions in Alzheimer's disease. (in preparation)
17. Zhu Y,<sup>‡</sup> Yao B, Jin P, Bennett DA, **Zhao J.**\* Genome-wide mapping of brain 6mA methylome in AD: findings from a pilot study. (in preparation)

**Selected published abstracts and presentations** (*In reverse chronological order.*)

\*Correspondence; <sup>‡</sup>Trainee)

1. Subedi P<sup>‡</sup>, Nembrini S, An Q, Peng H, Yeh F, Cole SA, Rhoades DA, Lee ET & **Zhao J.**\* Telomere length and cancer mortality in American Indians: The Strong Heart Study. Accepted for poster presentation at APHA, Oct 2018
2. Zhu Y<sup>‡</sup>, Strachan E, Fowler E, Bacus T, Roy-Byrne P, **Zhao J.**\* EWAS for major depression: a monozygotic discordant twin study. Accepted for poster presentation at ASHG, Oct 2018
3. Huo Z<sup>‡</sup>, Zhu Y<sup>‡</sup>, Yu L, Yang J, De Jager P, Bennett DA, **Zhao J.**\* Altered DNA methylation variability associated with Alzheimer's disease. Accepted for poster presentation at ASHG, Oct 2018
4. **Zhao J.**\* Zhu Y<sup>‡</sup>, Eric Strachan, Emily Fowler, Tamara J. Bacus, Peter Roy-Byrne. Genome-wide profiling of DNA methylome and transcriptome in peripheral blood

- monocytes for major depression: a monozygotic discordant twin study. Accepted for oral presentation at the 2017 Behavioral Genetics Meeting, Oslo, Norway June 28-July 1, 2017
5. Zhu Y<sup>‡</sup>, Eric Strachan, Emily Fowler, Tamara J. Bacus, Peter Roy-Byrne, **Zhao J**<sup>\*</sup>. An Epigenomewide Association Study (EWAS) on Alcohol Consumption: A Monozygotic Twin Study. Accepted for oral presentation at the 2017 Behavioral Genetics Meeting, Oslo, Norway June 28-July 1, 2017
  6. Peng H<sup>‡</sup>, Yeh F, Zhang Y, de Simone G, Best LG, Lee ET, Howard BV, **Zhao J**<sup>\*</sup>. 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
  7. Zhao Q, Zhu Y<sup>‡</sup>, Yeh F, Lin J, Zhang Y, Calhoun D, Cole SA, Lee ET, Howard BV, **Zhao J**<sup>\*</sup>. 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
  8. Hu Z<sup>‡</sup>, 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
  9. 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
  10. Peng H, <sup>‡</sup> Fawn Y, Cole SA, Best LG, Roman MJ, Lee ET, Howard BV, **Zhao J**<sup>\*</sup>. 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.
  11. 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.
  12. Kelly TN, Ajami NJ, Bazzano LA, **Zhao J**, He J. 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.
  13. An Q, <sup>‡</sup> Zhu Y, <sup>‡</sup> Goldberg J, Vaccarino V, **Zhao J**<sup>\*</sup>. 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.
  14. 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.
  15. **Zhao J**<sup>\*</sup>, Zhu Y, 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

16. 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.
17. 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.
18. **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.
19. 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.
20. **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.
21. 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.
22. Li S, 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.
23. **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*)
24. 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*)
25. 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.
26. 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.

27. 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*)
28. **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*)
29. **Zhao J.**\* Goldberg J, 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*)
30. 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
31. 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.
32. Yang J,<sup>‡</sup> Cole SA, Haack K, Howard BV, Best LG, Devereux RB, Lee ET and **Zhao J.**\* 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
33. **Zhao J.**\* 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
34. Yang J,<sup>‡</sup> Cowan LD, Zhang Y,<sup>‡</sup> Cole SA, Haack K, MacCluer JW, Howard BV, Lee ET, **Zhao J.**\* 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
35. Yang J,<sup>‡</sup> Zhang Y,<sup>‡</sup> Cowan LD, Cole SA, Haack K, MacCluer JW, Howard BV, Lee ET and **Zhao J.**\* 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
36. **Zhao J**, \* 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
  37. **Zhao J**, \* 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
  38. Yang J, <sup>‡</sup> Bouzyk M, Goldberg J, Vaccarino V, **Zhao J**. \* 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
  39. **Zhao J**, \* 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 49th 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*)
  40. **Zhao J**, \* 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
  41. 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
  42. **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
  43. **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
  44. 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

45. **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
46. 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
47. **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*)
48. **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
49. **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
50. 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
51. 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
52. **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
53. 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
54. 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
55. 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

56. 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
57. 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
58. **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
59. **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
60. 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
61. **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
62. 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
63. 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
64. **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
65. **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

### **Selected External Lectures/Seminars**

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| 2008 | <i>Genetic Linkage and Association Analysis for Human Complex Disorders</i><br>Cardiovascular Research Institute, Morehouse School of Medicine, Atlanta, GA |
| 2008 | <i>Genetic Susceptibility to Coronary Artery Disease</i><br>Division of Biostatistics and Epidemiology  |

Medical University of South Carolina, Charleston, SC

- 2009 *Genetic Determinants of Type 2 Diabetes and Its Related Phenotypes*  
Clinical Endocrinology and Metabolism Forum, Chinese Academy of Medical  
Science, Beijing, China
- 2009 *Genome-wide Linkage and Association Studies of Type 2 Diabetes*  
Endocrinology Research Conference  
University of Oklahoma Health Science Center, Oklahoma City, OK
- 2010 *Genetics of Type 2 Diabetes and Its Risk Factors*  
School of Medicine, University of Oklahoma HSC, Oklahoma City, OK
- 2012 *Genetic mechanisms in Metabolic Disorders*  
Emory University School of Public Health, Atlanta, GA
- 2013 *Telomeres and epigenetic factors in CVD risk*  
Department of Biostatistics, University of North Carolina, Chapel Hill, NC
- 2013 *Biological aging and diabetes risk in American Indians*  
Department of Biostatistics, Tulane University School of Public Health and  
Tropical Medicine, New Orleans
- 2013 *Genetic and epigenetic determines for CVD and type 2 diabetes*  
Hayward Genetics Center, Tulane University School of Medicine, New Orleans,
- 2014 *Novel 'omics' markers for CVD, diabetes and their risk factors*  
Department of Preventive Medicine, Northwestern University, Chicago, IL
- 2014 *Metabolomic profiling of CVD and diabetes: Findings from American Indians*  
Chinese Heart Conference, Beijing, China
- 2015 *Novel Biomarkers for CVD and its Risk Factors*  
Emory University School of Medicine, Atlanta, GA
- 2015 *Brain DNA hydroxymethylome in Alzheimer's disease: a pilot study*  
Rush University Medical Center, Chicago, IL.
- 2016 *Novel 'Omics' Biomarkers for Human Complex Diseases: Genomics,  
Epigenomics, Transcriptomics, and Metabolomics*  
Department of Epidemiology & Community Health, University of Minnesota,  
Minneapolis, MN
- 2019 *A longitudinal lipidomics profiling of diabetes risk in American Indians*  
Rush University Medical Center, Chicago, IL
- 2019 *Precision Health to Human Complex Diseases: A Multi-Omics Approach*  
Tulane University, New Orleans, LA