

# CURRICULUM VITAE

**Yan V. Sun, PhD. MS.**

## EDUCATION

- B.S. Biochemistry and Molecular Biology, 1996  
Peking University, Beijing, China
- Ph.D. Biochemistry and Molecular Biology, 2001  
Wayne State University, Detroit, Michigan.
- M.S. Computer Science, 2003  
Wayne State University, Detroit, Michigan.

## POSTDOCTORAL TRAINING

- 2002-2004 Research Associate, Bioinformatics and Toxicogenomics, Michigan State University, East Lansing, Michigan

## OTHER TRAINING

- 2009 MBA Essentials and Entrepreneurship, Ross School of Business, University of Michigan, Ann Arbor, Michigan

## WORK EXPERIENCE

- 2022-present Professor, Department of Epidemiology, Rollins School of Public Health, Emory University, Atlanta, Georgia
- 2021-present Research Health Scientist, Atlanta VA Health Care System, Decatur, Georgia
- 2017-present Director/Co-director, Genetic and Molecular Epidemiology (GME) Certificate Program, Rollins School of Public Health, Emory University, Atlanta, Georgia
- 2017-2022 Associate Professor, Department of Epidemiology, Rollins School of Public Health, Emory University, Atlanta, Georgia
- 2011-2017 Assistant Professor, Department of Epidemiology, Rollins School of Public Health, Emory University, Atlanta, Georgia
- 2007-2011 Assistant Research Scientist/Research Assistant Professor, Department of Epidemiology, School of Public Health, University of Michigan, Ann Arbor, Michigan
- 2004-2007 Senior Research Associate, Department of Epidemiology, School of Public Health, University of Michigan, Ann Arbor, Michigan

## GRANT SUPPORT

### Active:

National Institutes of Health (R01DK125187). Marconi/**Sun contact MPI** “Multi-omic Predictors of Renal Function among HIV-infected Individuals of African Ancestry”. 08/01/2020 - 03/31/2025 Total Cost \$4,091,053

National Institutes of Health (R01AI139406), Gandhi /**Sun MPI** “Characterization of Genomics and Metabolomics among Individuals Highly-Exposed, but resistant to *Mtb* Infection”. 7/01/2018-06/30/2024. Total Cost \$3,729,442

National Institutes of Health (R21AI152031-01A1), Gandhi/**Sun contact MPI**, “Epigenetic Study of Resistance to Infection by Mycobacterium tuberculosis”, 6/8/2021 - 5/31/2024. Total Cost \$430,063

National Institutes of Health (R01HL156991) Rao PI, **Yan Sun site PI**, “A Multi-

Ancestry Study of Gene-Lifestyle Interactions and Multi-Omics in Cardiometabolic Traits”. 04/27/2021 – 03/31/2025. Total subcontract cost \$202,945.

National Institutes of Health (P01HL154996-01A1), Narayan/Quyyumi MPI, **Yan Sun Project 3 Project Lead**, “Multi-omic Determinants of Subclinical and Clinical Vascular and Myocardial Disease”, 5/16/2022 - 2/28/2027. Total Cost: \$11,611,030.

National Institutes of Health (R01HL160793-01A1) Yu/Ramachandran MPI, **Yan Sun subcontract PI**, “Genetic Architecture of Cardiac Structure and Function and Its Impact on Heart Failure”, 8/1/2022 – 6/30/2026. Emory total cost \$125,200

National Institutes of Health (R01HL168894-01A1), Conneely/Natarajan MPI, **Yan Sun co-investigator**, “Integrated omics analysis of clonal hematopoiesis and cardiovascular disease risk in TOPMed”, 7/19/2023 - 6/30/2027.

Veteran Affairs, Joseph/**Sun MPI**, “Artificial Intelligence to Resolve Heterogeneity of Heart Failure with Preserved Ejection Fraction and Enable Precision Care”. 10/1/2022-9/30/2024. Total Cost: \$1,500,000.

Department of Veteran Affairs Merit Award (I01BX004821), P. Wilson PI, **Y. Sun co-investigator**, “Cardiovascular disease risk factors, cardiovascular disease prediction, and genetics in the Million Veteran Program”. 10/01/2019 - 9/30/2024. Total cost \$600,00

Department of Veteran Affairs (I01BX005831), L. Phillips PI, **Y. Sun co-investigator**, “Diabetic Complications and Genetic Variants in the Million Veterans Program”. 7/1/2022-6/30/2026. Total cost \$660,00.

Department of Veteran Affairs (I01BX006008), V. Marconi PI, **Yan Sun co-investigator**, “Host genetic and epigenetic factors of the progression, comorbidities and outcomes of viral infections”. 10/1/2022-9/30/2026. Total cost \$660,00.

Department of Veteran Affairs Merit (I01RX002790), Oursler/Marconi PI, **Yan Sun co-investigator**, “Effects of 12-weeks of high-intensity resistance aerobic circuit exercise training on epigenetic aging and inflammation in older HIV-infected Veterans”. 10/01/2019 - 9/30/2024. Total cost \$426,120 (Atlanta VA).

Department of Veteran Affairs (MVP030), Vassy PI, **Yan Sun co-investigator**, "Million Veteran Program Return Of Actionable Results - Familial Hypercholesterolemia (MVP-ROAR-FH) Study”. 10/01/2019-03/31/2024. Total cost \$1,455,450

National Institutes of Health (R01HL145025), Chen/Manning MPI, **Yan Sun consultant**, “Methods and Software for Large-scale Gene-Environment interaction Studies”. 7/15/2019 - 6/30/2024

National Institutes of Health (T32HL130025), Vaccarino (Program Director), Y. Sun **Training Faculty**, “Multidisciplinary Research Training to Reduce Inequities in Cardiovascular Health (METRIC)” 7/1/2016-6/30/2025

National Institute of Health (K25DK135913), Carl Yang PI, **Yan Sun co-mentor**, “Understanding Diabetes Heterogeneity via Mining Multimodality Interconnected Data” 4/1/2023-3/31/2028

### **Pending:**

National Institutes of Health (1R01DK139632), Narayan (Contact)/Sun/Tandon **MPI**, “Molecular Prediction, Disease Progression, and Type 2 Diabetes (T2D) Phenotypes in South Asians”. 04/01/2024-03/31/2029. Total Costs: \$3,337,454.

Department of Veteran Affairs Merit (I01BX006407). **Sun PI** “Molecular and Lifestyle Contribution to Precision Health of Obesity-related Disease Burden among Veterans”. 10/01/2024 - 09/30/2028. Total Cost \$1,059,452

National Institutes of Health (R25HG013473). Guan/**Sun MPI**, "Public Health Genomics Research Training for Genetic Counselors (PHGRT-GC)". 04/01/2024-03/01/2029. Total Cost: \$1,290,800

National Institutes of Health. Brittain PI, **Yan Sun co-investigator**. "Clinical, Genetic, and Proteomic Determinants of Resilience for Pulmonary Hypertension in Heart Failure". 05/01/2024-04/30/2029. Total Costs: \$430,375

National Institute of Health (K23), Laura Scorr PI, **Yan Sun co-mentor**, “Biomarkers of Dystonia”

### **Previous:**

National Institute of Health (F31HD106748), Sonia Tandon PI, **Yan Sun co-sponsor**, “Maternal and offspring FADS polymorphisms, dietary LC-PUFAs, and adolescent cardiometabolic health”. 5/1/2022 – 6/30/2024 (Graduated 08/2023)

Georgia CTSA (KL2), Ryon Cobb PI, **Yan Sun co-mentor**, “Gene-Environment Interaction Analysis of Renal Aging Among Older Blacks and Whites”. 8/1/2021 – 7/31/2023

Department of Veteran Affairs (I01CX001737), L. Phillips PI, **Y. Sun co-investigator**, “Diabetic Complications and Genetic Variants in the Million Veterans Program”. 10/1/2018-12/31/2021. Total cost \$400,00.

National Institutes of Health (R01NR013520), Taylor & Crusto MPI (New York University), **Y. Sun subcontract PI**, “Intergenerational Impact of Genetic and Psychological Factors on Blood Pressure” 09/01/2014-06/30/2021. Subcontract Direct Cost \$422,083.

National Institutes of Health CFAR administrative supplement (NIHSupp-Y21-Sun), **Y. Sun PI** “Metabolic Markers of Renal Failure among Individual of African Ancestry after ART” 08/01/2019 – 07/31/2021. Total Cost: \$233,869.

National Institutes of Health (R01NS109242), Jinnah PI, **Yan Sun co-investigator** “Modeling Inherited Neurodevelopmental Disorders with Human Induced Pluripotent Stem Cells”. 7/01/2019-4/30/2021.

NIH (K01 NR017010), V. Barcelona de Mendoza (PI), **Y. Sun co-mentor**, “DNA Methylation, Preterm Birth and Blood Pressure in African American Children” 9/19/2017 – 8/31/2020

National Institutes of Health, Administrative Supplement, Vaccarino PI, **Yan Sun co-investigator**. “Methylation aging as pathway for cognitive decline and dementia: A twin study” 9/1/2018-7/1/2019, total Direct Costs \$200,000.

National Institutes of Health (R01HL125246), Vaccarino (PI), **Y. Sun co-investigator**, “PTSD and Ischemic Heart Disease Progression: A Longitudinal Twin Study”. 7/15/2015 - 4/30/2020

Emory SYNERGY Award, Petros/**Sun MPI**, “New Hereditary Kidney Cancer Syndrome”. 10/01/2017-09/30/2019,

National Institutes of Health (1R21NS096455), **Yan Sun contact MPI**, Jinnah MPI "Identification of genetic and metabolomic markers influencing dystonia". 4/15/2016-3/31/2019, Total Direct Costs \$275,000

American Heart Association (13GRNT17060002), **Yan Sun PI**, "Epigenetic Markers of Coronary Heart Disease in Monozygotic Twins" 7/01/2013-6/30/2016. Total Direct Costs \$150,000

National Institutes of Health (P30 AI050409), J. Curran, Center PI, Center for AIDS Research (CFAR); CFAR03-Y14A **Yan Sun, PI**, "Impact of HIV Infection on Age-related DNA Methylation" 07/23/13-07/22/15, Total Direct Costs \$39,950.

Dystonia Medical Research Foundation, **Yan Sun PI**, "Genome-wide association study of cervical dystonia". 10/1/2016-9/30/2017, Total Direct Costs \$25,000

National Institutes of Health (P30 ES019776), G. Miller, Center PI, Health and Exposome Research Center; Pilot Study **Yan Sun, PI**, "Influences of environmental stressors on epigenome" 09/20/13-03/31/15, Total Direct Costs \$25,000.

NIH (U01AI034989), Greenblatt/Aouizerat MPI, Y. Sun **subcontract PI co-I**, "The Connie Wofsy Women's HIV Study". 8/31/2017-12/31/2018

National Institutes of Health (R01NS070941), D. Brown & L. Lisabeth PI (University of Michigan), **Y. Sun subcontract PI**, "Sleep Apnea Health Disparities in Mexican American Stroke Patients" 05/01/11-04/30/17. Subcontract Direct Costs \$63,866

National Institutes of Health (P01HL101398), Quyyumi PI (Emory University), **Yan Sun co-investigator**, "Mental Stress Ischemia: Prognosis and Genetic Influences". 9/1/2010-11/30/2016. Total Direct Costs \$7,109,863

National Institutes of Health (U01GM074492), Johnson PI (University of Florida), Chapman Subcontract PI, **Yan Sun co-investigator**, "Pharmacogenomic Evaluation of Antihypertensive Responses", 8/1/2010 - 7/31/2014. Total Costs \$8,042,155

National Institutes of Health/NIAID (R01AI087465), Gandhi PI, **Yan Sun, co-investigator**, "Impact of HIV, Antiretroviral Therapy and TB Genotype on Survival in MDR TB". 7/1/2010-6/30/2015. Total Direct Costs \$2,797,183

National Institutes of Health (RC4MD005964), G. Gibbons PI (Morehouse School of Medicine), **Yan Sun co-investigator**, "Minority Health-GRID Network: A Genomics Resource for Health Disparity Research" 9/30/2010 - 9/29/2013. Total Costs \$13,320,021

Children's Healthcare of Atlanta, **Yan Sun, PI**, "Epigenomic Study of Childhood Ependymoma". 1/1/2013 – 12/31/2013. Total Direct Costs \$25,179

Kaiser Permanente Georgia (NIH pass-through), **Yan Sun co-PI** "Pharmacogenomics of Membrane Transporters". 1/1/2013 – 12/31/2013. Subcontract Total Direct Costs \$22,079

National Institutes of Health (RC1 HL100245), **Yan Sun, P.I.**, "Genetics of Hypertension Risk Factors and Sequela in African Americans", 09/30/2009-12/31/2012, Total Costs \$966,490.

National Institutes of Health (RC1 HL100185), S. Kardia, PI, **Y. Sun co-investigator**, "Epigenetic Biomarkers of Common Chronic Diseases", 09/30/2009-7/31/2011, Total Costs \$998,684.

National Institutes of Health (RC2 AG036495), PI D. Weir, P.I., **Y. Sun co-investigator**, "Creating a National Resource for Genetic Research in Behavioral & Health Sciences", 09/30/2009-8/31/2011, Total Costs \$6,741,000.

National Institutes of Health (R01 NS041558), S. Turner, PI, **Y. Sun co-investigator**, “Genetics of Microangiopathic Brain Injury”, 08/05/2009-7/31/2011, Total Costs \$1,666,669.

National Institutes of Health (MD002249), A. Diez-Roux, Center PI, Michigan Center for Integrative Approaches to Health Disparities (CIAHD); S. Kardia, P.I., **Y. Sun co-investigator**, “Genetic and Social Factors in Blood Pressure Control in Hypertensives,” 09/01/07-09/01/11, Total Direct Costs \$880,953.

National Institutes of Health (R01 HL087660), S. Kardia, PI, **Y. Sun co-investigator**, “Genomic Predictors of Arteriosclerosis in Hypertensives,” 04/01/07-03/31/11, Total Direct Costs \$4,601,705.

## TEACHING EXPERIENCE

### Courses

2012-present Human Genome Epidemiology (EPI552) co-instructor, Emory University, Atlanta  
2012-present Applied Genomic Epidemiology (EPI556) instructor, Emory University, Atlanta  
2018-2019 R Bootcamp for Epidemiology (EPI590R) co-instructor, Emory University, Atlanta  
2011-present Guest Lecturer in BIOS770, EHS590R, EPI510, EPI516, EPI543, EPI590R, Health320, BIOL352 and MSCR, Emory University, Atlanta  
2008 Computational Molecular Biology (CSC7991) instructor, Wayne State University, Detroit, Michigan

### Mentorship

#### PhD Students (Primary Advisor/Committee Chair)

2023-present Matheus Fernandes Gyorfy  
2023-present Jeffery Osei  
2020-present Junyu Chen  
2019-present Chang Liu  
2015-2019 Yunfeng Huang

#### PhD Students (Committee Member)

2018-2023 Sonia Tandon  
2014-2018 Pratik Pimple

#### Post-doc

2023-present Bojung Seo PhD  
2022-present Pradeep Tiwari PhD  
2017-2018 Kristen M. Brown PhD  
2009-2011 Wei Chen PhD

#### Junior Faculty (Co-Mentor)

2023-present Carl Yang PhD  
2021-2023 Ryon Cobb PhD  
2017-2020 Veronica Barcelona PhD  
2016-2019 Amit Shah MD

#### MPH/MSPH Students (Thesis/Research Advisor)

2022-present Nanzha Abi  
2023-present Collin Brummel  
2023-present Nick Weaver  
2021-2023 Matheus Fernandes Gyorfy

2021-2023	Alec Power
2021-2023	Jeffery Osei
2021-2023	Jiyuan Ren
2020-2022	Seibi Kobara
2019-2021	Mitchell Lee
2019-2021	Yutong Yao
2019-2021	Zhuyun Mao
2018-2020	Jiali Chen
2018-2020	Lijin Wang
2018-2020	Pu Wang
2018-2020	Qiyang Wei
2018-2020	Yijin Xiang
2018-2019	Tianxiao Liu
2017-2019	Chengchen (Cherry) Li
2017-2019	Kellan Burrell
2017-2019	Huimin (Mia) Zhong
2017-2019	Zhenyu Gan
2016-2018	Junyu Chen
2016-2018	Raina Mathur
2015-2017	Chang Liu
2014-2016	Xi Liu
2014-2016	Jie Yin
2014-2016	Robert Y Eagar
2014-2015	Yunfeng Huang
2014-2015	Daniella Klebaner
2013-2016	Michael Wong
2013-2015	Yixiang Li
2011-2013	Wenruo Hu
2011-2013	Yi-Ting Chou
2011-2013	Alexander K. Zaharoff
2011-2013	Weiyang Li
2011-2012	Yu-Hsuan (Amanda) Chuang

#### Other Trainees

2022-2023 (Humphrey Fellow) Yan Song MD/PhD

#### **PEER- REVIEWED ORIGINAL RESEARCH (# equal contribution, § trainee, 71 as the first/senior author)**

1. Junyu Chen<sup>§</sup>, Qin Hui, Chang Liu<sup>§</sup>, Jaysingh Brijkumar, Johnathan A. Edwards, Claudia E. Ordóñez, Mathew R. Dudgeon, Henry Sunpath, Selvan Pillay, Pravi Moodley, Daniel R. Kuritzkes, Mohamed Y. S. Moosa, Tooru Nemoto, Vincent C. Marconi, **Yan V. Sun**. Associations of inflammation-related proteome with demographic and clinical characteristics of people with HIV in South Africa. *Proteomics Clinical Applications*. 2023 Sep 6:e2300015..
2. Sonia Tandon Wimalasena<sup>§</sup>, Claudia Ivonne Ramirez-Silva, Ines Gonzalez Casanova, Aryeh D. Stein, **Yan V. Sun**, Juan A. Rivera, Hans Demmelmair, Berthold Koletzko, Usha Ramakrishnan. Effects of prenatal DHA supplementation on offspring cardiometabolic health at 11 years differs by maternal single nucleotide polymorphism rs174602: follow-up

of a randomized controlled trial in Mexico. *American Journal of Clinical Nutrition*. Accepted.

3. Kasra Moazzami, Mariana Garcia, Samaah Sullivan, Tené Lewis, J Bremner, Alexander Razavi, Lisa Elon, Nancy Murrah, Lucy Shallenberger, **Yan V Sun**, Paolo Raggi, Amit Shah, Arshed Quyyumi, Viola Vaccarino. Association between Symptoms of Chronic Psychological Distress and Myocardial Ischemia Induced by Mental Stress in Young and Middle-aged Individuals with a History of Recent Myocardial Infarction. *JAHA*. Accepted.
4. Rasooly D, Peloso GM, Pereira AC, Dashti H, Giambartolomei C, Wheeler E, Aung N, Ferolito BR, Pietzner M, Farber-Eger EH, Wells QS, Kosik NM, Gaziano L, Posner DC, Bento AP, Hui Q, Liu C, Aragam K, Wang Z, Charest B, Huffman JE, Wilson PWF, Phillips LS, Whittaker J, Munroe PB, Petersen SE, Cho K, Leach AR, Magariños MP, Gaziano JM, Langenberg C<sup>#</sup>, **Sun YV**<sup>#</sup>, Joseph J<sup>#</sup>, Casas JP<sup>#</sup>. Genome-wide association analysis and Mendelian randomization proteomics identify drug targets for heart failure. *Nat Commun*. 2023 Jul 10;14(1):3826. PMID: 37429843; PMCID: PMC10333277.
5. Patel AP, Wang M, Ruan Y, Koyama S, Clarke SL, Yang X, Tcheandjieu C, Agrawal S, Fahed AC, Ellinor PT, Tsao PS, **Sun YV**, Cho K, Wilson PWF, Assimes TL, van Heel DA, Butterworth AS, Aragam KG, Natarajan P, Khera AV. A multi-ancestry polygenic risk score improves risk prediction for coronary artery disease. *Nat Med*. 2023 Jul;29(7):1793-1803. PMID: 37414900; PMCID: PMC10353935.
6. Hirsh ML<sup>§</sup>, Edwards JA, Robichaux C, Brijkumar J, Moosa MS, Ofotokun I, Johnson BA, Pillay S, Pillay M, Moodley P, **Sun YV**, Liu C, Dudgeon MR, Ordoñez C, Kuritzkes DR, Sunpath H, Morrow M, Anderson PL, Ellison L, Bushman LR, Marconi VC, Castillo-Mancilla JR. Food Insecurity Is Associated With Low Tenofovir Diphosphate in Dried Blood Spots in South African Persons With HIV. *Open Forum Infect Dis*. 2023 Jul;10(7):ofad360. PMID: 37469618; PMCID: PMC10352648.
7. Tandon S<sup>§</sup>, Ivonne Ramirez Silva C, **Sun YV**, Stein AD, Rivera JA, Ramakrishnan U. Clustering of Cardiometabolic Risk Factors in Mexican Pre-Adolescents. *Diabetes Res Clin Pract*. 2023 Jul 6.
8. Buto PT, Shah A, Pearce BD, Lima BB, Almuwaqqat Z, Martini A, Al-Abboud O, Tarlapally N, Sullivan S, **Sun YV**, Murrah NV, Driggers E, Shallenberger L, Lewis TT, Elon L, Bremner JD, Raggi P, Quyyumi A, Vaccarino V. Association of systemic inflammation with posttraumatic stress disorder after a myocardial infarction. *Brain Behav Immun Health*. 2023 Apr 26; eCollection 2023 Jul. PMID: 37396337; PMCID: PMC10308211.
9. Vassy JL, Posner DC, Ho YL, Gagnon DR, Galloway A, Tanukonda V, Houghton SC, Madduri RK, McMahon BH, Tsao PS, Damrauer SM, O'Donnell CJ, Assimes TL, Casas JP, Gaziano JM, Pencina MJ, **Sun YV**, Cho K, Wilson PWF. Cardiovascular Disease Risk Assessment Using Traditional Risk Factors and Polygenic Risk Scores in the Million Veteran Program. *JAMA Cardiol*. 2023 May 3. PMID: 37133828; PMCID: PMC10157509
10. Chen J<sup>§</sup>, Hui Q, Wang Z, Wilson FP, So-Armah K, Freiberg MS, Justice AC, Xu K, Zhao W, Ammous F, Smith JA, Kardia SLR, Gwinn M, Marconi VC, **Sun YV**. Epigenome-wide meta-analysis reveals differential DNA methylation associated with estimated glomerular filtration rate among African American men with HIV. *Kidney International Rep*. 2023 Mar 2;8(5):1076-1086. PMID: 37180517; PMCID: PMC10166785.
11. Carolina Roselli, Ida Surakka, Morten Olesen , Garðar Sveinbjornsson , Nicholas Marston , Seung Hoan Choi , Hilma Holm , Mark Chaffin , Daniel Gudbjartsson , Matthew Hill, ..., **Yan V Sun**, ..., Tanja Zeller , Lingyao Zeng , Wei Zhao , Dr Xiang Zhou , Sebastian

- Zöllner , Christian Ruff , Henning Bundgaard , Cristen Willer , Kari Stefansson, Patrick Ellinor. Meta-analysis of Genome-wide Associations and Polygenic Risk Prediction for Atrial Fibrillation in More Than 1 Million Individuals. Nature Genetics. Accepted.
12. Huang J, Huffman JE, Huang Y<sup>§</sup>, Do Valle Í, Assimes TL, Raghavan S, Voight BF, Liu C, Barabási AL, Huang RDL, Hui Q, Nguyen XT, Ho YL, Djousse L, Lynch JA, Vujkovic M, Tcheandjieu C, Tang H, Damrauer SM, Reaven PD, Miller D, Phillips LS, Ng MCY, Graff M, Haiman CA, Loos RJJ, North KE, Yengo L, Smith GD, Saleheen D, Gaziano JM, Rader DJ, Tsao PS, Cho K, Chang KM, Wilson PWF; VA Million Veteran Program, **Sun YV<sup>#</sup>**, O'Donnell CJ<sup>#</sup>. Genomics and phenomics of body mass index reveals a complex disease network. Nat Commun. 2022 Dec 29;13(1):7973.
  13. Kim DH, Jensen A, Jones K, Raghavan S, Phillips LS, Hung A, **Sun YV**, Li G, Reaven P, Zhou H, Zhou JJ. A platform for phenotyping disease progression and associated longitudinal risk factors in large-scale EHRs, with application to incident diabetes complications in the UK Biobank. JAMIA Open. 2023 Feb 9;6(1):ooad006. PMID: 36789288; PMCID: PMC9912368.
  14. Joseph J, Liu C<sup>§</sup>, Hui Q, Aragam K, Wang Z, Charest B, Huffman JE, Keaton JM, Edwards TL, Demissie S, Djousse L, Casas JP, Gaziano JM, Cho K, Wilson PWF, Phillips LS, O'Donnell CJ, **Sun YV**. Genetic architecture of heart failure with preserved versus reduced ejection fraction. Nat Commun. 2022 Dec 14;13(1):7753. PMID: 36517512; PMCID: PMC9751124.
  15. Kanoni S, Graham SE, Wang Y, Surakka I, Ramdas S, Zhu X, Clarke SL, Bhatti KF, Vedantam S, Winkler TW, ..., Mohlke KL, **Sun YV**, Morris AP, Boehnke M, Brown CD, Natarajan P, Deloukas P, Willer CJ, Assimes TL, Peloso GM. Implicating genes, pleiotropy, and sexual dimorphism at blood lipid loci through multi-ancestry meta-analysis. Genome Biol. 2022 Dec 27;23(1):268.
  16. Nicole Beaulieu Perez, Gail D'Eramo Melkus, Allison A. Vorderstrasse, Fay Wright, Gary Yu, **Yan V. Sun**, Cindy A. Crusto<sup>5</sup>, Jacquelyn Y. Taylor. Latent Class Analysis of Depressive Symptom Phenotypes among Black/African American Mothers. Nursing Research. Nurs Res. 2022 Dec 9.
  17. Taylor JY, Huang Y<sup>§</sup>, Zhao W, Wright ML, Wang Z, Hui Q, Potts-Thompson S, Barcelona V, Prescott L, Yao Y, Crusto C, Kardina SLR, Smith JA, **Sun YV**. Epigenome-wide association study of BMI in Black populations from InterGEN and GENOA. Obesity (Silver Spring). 2022 Dec 7.
  18. Liu C<sup>§</sup>, Dhindsa D, Almuwaqqat Z, **Sun YV**, Quyyumi AA. Very High High-Density Lipoprotein Cholesterol Levels and Cardiovascular Mortality. Am J Cardiol. 2022 Dec 3:S0002-9149(22)01174-2.
  19. Caceres BA, Huang Y<sup>§</sup>, Barcelona V, Wang Z, Newhall KP, Cerdeña JP, Crusto CA, **Sun YV**, Taylor JY. The Interaction of Trauma Exposure and DNA Methylation on Blood Pressure Among Black Women in the InterGEN Study. Epigenet Insights. 2022 Nov 29;15:25168657221138510.
  20. Levin MG, Tsao NL, Singhal P, Liu C<sup>§</sup>, Vy HMT, Paranjpe I, Backman JD, Bellomo TR, Bone WP, Biddinger KJ, Hui Q, Dikilitas O, Satterfield BA, Yang Y, Morley MP, Bradford Y, Burke M, Reza N, Charest B; Regeneron Genetics Center, Judy RL, Puckelwartz MJ, Hakonarson H, Khan A, Kottyan LC, Kullo I, Luo Y, McNally EM, Rasmussen-Torvik LJ, Day SM, Do R, Phillips LS, Ellinor PT, Nadkarni GN, Ritchie MD, Arany Z, Cappola TP, Margulies KB, Aragam KG, Haggerty CM, Joseph J, **Sun YV**,



- Voight BF, Damrauer SM. Genome-wide association and multi-trait analyses characterize the common genetic architecture of heart failure. *Nat Commun*. 2022 Nov 14;13(1):6914.
21. Faaborg-Andersen CC, Liu C<sup>§</sup>, Subramaniyam V, Desai SR, **Sun YV**, Wilson PWF, Sperling LS, Quyyumi AA. U-shaped Relationship between Apolipoprotein A1 Levels and Mortality Risk in Men and Women. *Eur J Prev Cardiol*. 2022 Nov 9:zwac263.
  22. Titanji BK<sup>§</sup>, Lee M<sup>§</sup>, Wang Z, Chen J, Hui Q, Lo Re Iii V, So-Armah K, Justice AC, Xu K, Freiberg M, Gwinn M, Marconi VC, **Sun YV**. Epigenome-wide association study of biomarkers of liver function identifies albumin-associated DNA methylation sites among male veterans with HIV. *Front Genet*. 2022 Oct 11;13:1020871.
  23. Mishra A, Malik R, Hachiya T, Jürgenson T, Namba S, Posner DC, Kamanu FK, Koido M, Le Grand Q, Shi M, ..., **Sun YV**, ..., Seshadri S, Fernández-Cadenas I, Walters RG, Ruff CT, Owolabi MO, Huffman JE, Milani L, Kamatani Y, Dichgans M, Debette S. Stroke genetics informs drug discovery and risk prediction across ancestries. *Nature*. 2022 Sep 30:1-15.
  24. Yengo L, Vedantam S, Marouli E, Sidorenko J, Bartell E, Sakaue S, Graff M, Eliassen AU, Jiang Y, Raghavan S, ..., **Sun YV**, ..., Abecasis GR, Willer CJ, Locke AE, Berndt SI, Lettre G, Frayling TM, Okada Y, Wood AR, Visscher PM, Hirschhorn JN. A saturated map of common genetic variants associated with human height. *Nature*. 2022 Oct 12.
  25. Kalinowski J, Huang Y<sup>§</sup>, Rivas MA, Barcelona V, Wright ML, Crusto C, Spruill T, **Sun YV**, Taylor JY. Stress Overload and DNA Methylation in African American Women in the Intergenerational Impact of Genetic and Psychological Factors on Blood Pressure Study. *Epigenet Insights*. 2022 Oct 10;15:25168657221126314.
  26. Oursler KK, Marconi VC, Wang Z, Xu K, Montano M, So-Armah K, Justice AC, **Sun YV**. Epigenetic Age Acceleration Markers Are Associated with Physiologic Frailty and All-cause Mortality in People with HIV. *Clin Infect Dis*. 2022 Aug 16:ciac656.
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  194. **Sun YV**, Liu C<sup>§</sup>, Staimez L, Mohammed K. Ali, Howard Chang, Dimple Kondal, Shivani Patel, Dean Jones, Viswanathan Mohan, Nikhil Tandon, Dorairaj Prabhakaran, Arshed A. Quyyumi, Venkat Narayan, K.M., Anurag Agrawal. Cardiovascular disease risk and pathophysiology in South Asians: can longitudinal multi-omics shed light? Wellcome Open Res 2021, 5:255 (<https://doi.org/10.12688/wellcomeopenres.16336.2>)
  195. Mudd-Martin G, Cirino AL, Barcelona V, Fox K, Hudson M, **Sun YV**, Taylor JY, Cameron VA. Considerations for Cardiovascular Genetic and Genomic Research With Marginalized Racial and Ethnic Groups and Indigenous Peoples: A Scientific Statement From the American Heart Association. Circ Genom Precis Med. 2021 Jul 26.
  196. **Sun YV**, Marconi VC. A complex system of chemokines may hold the key to optimal CD4+ T-cell recovery after antiretroviral therapy. EBioMedicine. 2020 Dec; 62: 103113. PMID: PMC7658500
  197. Jinnah HA, **Sun YV**. Dystonia genes and their biological pathways. Neurobiol Dis. 2019 May 18;129:159-168.
  198. **Sun YV**, Hu YJ. Integration of Multi-omic Data to Enhance the Discovery and Functional Studies of Complex Human Diseases. Adv in Genetics. 2016; 93: 147-190. PMID: PMC5742494
  199. **Sun YV**. The Influences of Genetic and Environmental Factors on Methylome-wide Association Studies for Human Diseases. Curr Genet Med Rep. 2014 Dec 1;2(4):261-270. PMID: PMC4239213
  200. **Sun, YV**. "Integration of biological networks and pathways with genetic association studies". Human Genetics 2012 Oct;131(10):1677-86. Epub 2012 Jul 10. PMID: PMC3432693
  201. Ziegler A, **Sun YV**. "Study designs and methods post genome-wide association studies." Human Genetics 2012 Oct;131(10):1525-31. PMID: PMC3458120
  202. **Sun YV**. Multigenic Modeling of Complex Disease by Random Forests. Complex Systems Approaches to Genetic Analysis. Advances in Genetics 2010. 72:73-99. PMID: 21029849

#### **SELECTED POSTERS AND ABSTRACTS (§ trainee, as first or last author, selected)**

1. **Sun Y**, Fertuck K.C., Zacharewski, T.R. (2003) "In Silico identification of Estrogen Responsive Elements in Human and Mouse Sequences" Toxicological Sciences 72 (1): 462 Suppl.
2. **Sun, Y.V.**, Boverhof, D., Fielden, M., Zacharewski, T.R. (2003) "In Silico Identification of Dioxin Response Elements in Human, Mouse and Rat Genomic Sequences" Digital Biology: The Emerging Paradigm. National Institute of Health.
3. **Yan Sun** and Barry P. Rosen "Cd (II) and Pb (II) regulation of gene expression by the CadC repressor". Second International Symposium on Metals and Genetics, Toronto, Ontario, Canada. 1998

4. **Sun, Y.**, Wong, M.D., Stalhandske, C., Scott, R.A., Rosen, B.P. (1999) "Cd (II), Zn (II) and Pb(II) regulation of gene expression by the CadC repressor", FASEB JOURNAL **13** (7): A1464-A1464
5. **Sun, Y.V.**, Boverhof, D.R., Fielden, M.R., Zacharewski, T.R. (2004) "Comparative Analysis of Dioxin Response Elements in Human, Mouse and Rat Genomic Sequences" Society of Toxicology 43<sup>rd</sup> Annual Meeting
6. **Sun, Y.V.**, Levin, A.M., Boerwinkle, E., Robertson, H., Douglas, J.A., Kardia, S. L.R. (2005) "A Model-Based Scan Statistic for Identifying Chromosomal Patterns of SNP Effects" International Conference on Intelligent Systems for Molecular Biology.
7. **Sun Y.V.**, Meyers K.H., Mosley T.H., Boerwinkle E., Kullo I.J., Turner S.T., Kardia S.L.R. "Identification of disease-associated SNP clusters using a scan statistic" 14<sup>th</sup> Annual Meeting of the International Genetic Epidemiology Society (IGES), Park City, UT, October 23-24, 2005.
8. **Sun, Y.V.**, Levin, A.M., Boerwinkle, E., Kardia, S.L.R. "A scan statistic for identifying chromosomal patterns of SNP association" 11<sup>th</sup> International Congress of Human Genetics in Brisbane, Australia, August 6-10, 2006.
9. **Sun, Y.V.**, Bielak, L.F., Peyser, P.A., Turner, S.T., Sheedy, P.F.II, Boerwinkle, E., Kardia, S.L.R. "Predicting Coronary Artery Calcification using Machine Learning Algorithms" 15<sup>th</sup> Annual Meeting of the International Genetic Epidemiology Society (IGES), St. Petersburg Beach, Florida, 2006.
10. **Sun, Y.V.**, Jacobsen, D.M., Turner, S.T., Bailey, K.R., Boerwinkle, E., Kardia, S.L.R. "A Fast Implementation of Scan Statistic for Identifying Chromosomal Patterns of Genome Wide Association Studies" 16<sup>th</sup> Annual Meeting of the International Genetic Epidemiology Society (IGES), York, England, 2007.
11. **Sun, Y.V.**, Kardia, S.L.R. "The Association of Copy Number Variation with the Gene Expression Levels of Matrix Metalloproteinases in Transformed B-Lymphocytes" 17<sup>th</sup> Annual Meeting of the International Genetic Epidemiology Society (IGES), St. Louis, Missouri, 2008.
12. **Sun, Y.V.**, Kardia, S.L.R. "Identification of epistatic effects using protein-protein interaction database" 18<sup>th</sup> Annual Meeting of the International Genetic Epidemiology Society (IGES), Kahuku, Hawaii, 2009.
13. Murabito, J.M., Kavousi, M., **Sun, Y.V.**, Cluett, C., Feitosa, M.F., Bis, J.C., Nambi, V., Hayward, C., Wilson, J.F., van Duijn, C.M., Rudan, I., White, C., Nora Franceschini, Witteman, J.C., Kardia, S.L.R., Borecki, I.B., Murray, A., Newman, A.B., Cupples, L. A., North, K.E., "Genome-wide Association Studies of the Ankle-brachial Index: A Meta-analysis of 12 Cohorts including 28083 Participants". American Heart Association Scientific Sessions, Orlando, Florida, 2009
14. **Sun, Y.V.**, Zhao, W., Kardia, S.L.R. "Genotype Imputation in African Americans" 19<sup>th</sup> Annual Meeting of the International Genetic Epidemiology Society (IGES), Boston, 2010.
15. Hsu, M.C., Shedden, K.A., Zhu, J., **Sun, Y.V.** "Improving prediction in genetic models based on additive effects from dependent variants" 19<sup>th</sup> Annual Meeting of the International Genetic Epidemiology Society (IGES), Boston, 2010.
16. Wei Zhao, Nathan E. Wineinger, Hemant K. Tiwari, Thomas M. Moseley, Ulrich Broeckel, Donna K. Arnett, Sharon L. R. Kardia, Edmond K. Kabagambe, **Yan V. Sun** "Copy number variations associated with obesity related traits in African Americans" The 12<sup>th</sup> International Meeting on Human Genome Variation and Complex Genome Analysis, Berkley, 2011.

17. **Sun, Y.V.**, §Zhao, W., Kardia, S.L.R., Shedden, K.A. “Epistatic Interactions among Genes with Known Evidence of Protein-Protein Interaction” 20th Annual Meeting of the International Genetic Epidemiology Society (IGES), Heidelberg, Germany 2011.
18. §Yang B, Thyagarajan B, Gross MD, Goodman M, Sun YV, Bostick RM. “Genetic variants at chromosome 8q24, colorectal epithelial cell proliferation, and risk for incident, sporadic colorectal adenomas”. AACR, Chicago, 2012
19. **Yan V. Sun**, §Alicia Lazarus, Jennifer A. Smith, §Yu-Hsuan Chuang, Wei Zhao, Stephen T. Turner, Sharon L.R. Kardia “Gene-specific DNA Methylation Association with Serum Levels of C-reactive Protein in African Americans” The 13th International Meeting on Human Genome Variation and Complex Genome Analysis, Shanghai, China, 2012.
20. §Qiuzhi Chang, Stephen T. Turner, Sharon L.R. Kardia, **Yan V. Sun**. Epigenetic association with plasma homocysteine levels in African Americans, IGES 2012
21. **Yan V. Sun**. Multimodal distribution of DNA methylation sites. IGES, Chicago, 2013
22. **Yan V. Sun**, Jack Goldberg, Dean Jones, Viola Vaccarino. Epigenome-wide association with soluble cell adhesion molecules among monozygotic twins. 2014 Epigenetics, Chromatin & Transcription, Cold Spring Harbor Asia, China
23. §Yunfeng Huang, Qin Hui, Douglas Walker, Jack Goldberg, Dean Jones, Viola Vaccarino, **Yan V. Sun**. Joint Metabolomic and Epigenomic Study of Cigarette Smoking. IGES 2016, Toronto, Canada.
24. Jacquelyn Y. Taylor, Veronica Barcelona de Mendoza, Yunfeng Huang, Kevin Newhall, Qin Hui, Cindy A. Crusto, **Yan V. Sun**. Adverse Childhood Experiences Influence DNA Methylation Profile among African American Mothers and Children in the InterGEN Study. IGES 2017, Cambridge, UK
25. **Yan V. Sun**, Qin Hui, Scott M. Damrauer, Pradeep Natarajan, Themistocles Assimes, Derek Klarin, Jie Huang, Julie Lynch, Jacqueline Honerlaw, Kelly Cho, Dan Rader, Phil S. Tsao, Chris O’Donnell, Peter Wilson, on behalf of the Million Veteran Program. Genetic Effects of Familial Hypercholesterolemia Variants on LDL Cholesterol Levels in Multi-ethnic Veterans: the Million Veterans Program Study.
26. §Kristen M Brown, Qin Hui, Cindy Crusto, Jacquelyn Y Taylor, **Yan V Sun**. Stress Overload and Methylation of Hypertension Related Genes. AHA EPI/Lifestyle Meeting, 2018, New Orleans, LA
27. §Yunfeng Huang, Qin Hui, Muhammad Hammadah, Pratik M Pimple, Ibhaz Al Mheid, Kobina Wilmot, Ronnie Ramadan, Amit J Shah, Brad Pearce, Ernest V Garcia, Michael Kutner, J Douglas Bremner, Fabio Esteves, Paolo Raggi, David S Sheps, Viola Vaccarino, Arshed A Quyyumi, **Yan Sun**. Genome-wide Association Study of Heart Rate Response to Mental Stress. AHA EPI/Lifestyle Meeting, 2018, New Orleans, LA
28. **Yan V. Sun**, Chengchen Li, Qin Hui, Joel S. Perlmutter, Samantha Ruehl, Christine Klein, Joseph Jankovic, Richard L. Barbano, Stephen G. Reich, J. Douglas Bremner, Viola Vaccarino, Arshed A. Quyyumi, H. A. Jinnah. Genome-wide association study identifies common genetic variants associated with cervical dystonia. International Congress of Parkinson's disease and Movement Disorders, October 2018, Hong Kong
29. §Yunfeng Huang, Jie Huang, Themistocles Assimes, Kelly Cho, Qin Hui, Yuk-Lam Ho, Scott M. Damrauer, Jacqueline Honerlaw, Donald Miller, Lawrence Phillips, Peter Reaven, Hua Tang, Maggie C.Y. Ng, Mariaelisa Graff, Christopher A. Haiman, Ruth J.F. Loos, Kari E. North, African Ancestry Anthropometry Genetics Consortium, Saiju Pyarajan, Michael Gaziano, Phillip Tsao, Kyong-Mi Chang, Peter Wilson, Danish Saleheen, **Yan V. Sun**,

Christopher J. O'Donnell on behalf of the VA Million Veteran Program A genome-wide and phenome-wide association study in individuals of African Ancestry identified novel loci of body mass index and obesity-related diseases. American Society of Human Genetics Annual Meeting, 2018, San Diego, CA

30. **YV. Sun**, H. Zhong, Y. Huang, Q. Hui, M. Gwinn, MJ. Magee, NR. Gandhi. Evaluation of the host genetic effects of tuberculosis-associated variants among patients with type 1 and type 2 diabetes mellitus. American Society of Human Genetics Annual Meeting 2019, Houston, TX.
31. Yunfeng Huang<sup>§</sup>, Qin Hui, Viola Vaccarino, Arshed A. Quyyumi, Marta Gwinn, Yijuan Hu, Yan V. Sun. Additive and Multiplicative Gene-lifestyle Interactions in Coronary Artery Disease in the UK Biobank. American Society of Human Genetics Annual Meeting 2019, Houston, TX.
32. Jacob Joseph, Qin Hui, Serkalem Demissie, Brian Charest, JP Casas, John Michael Gaziano, Roxbury Xing, Kelly Cho, Lauren Costa, Katherine Kurgansky, Peter WF Wilson, Lawrence Phillips, Christopher J O'Donnell, **Yan V Sun**. Genome Wide Association Study Of Heart Failure Identifies Seven Genetic Loci In The Million Veteran Program. 2019 American Heart Association Scientific Sessions. Philadelphia, PA
33. Chang Liu<sup>§</sup>, Yunfeng Huang<sup>§</sup>, Qin Hui, Arshed A Quyyumi, **Yan V Sun**. Age Dependence Of Genetic Risk Scores In Relation To Coronary Artery Disease. 2020 American Heart Association EPI/Lifestyle Council Meeting. Phoenix, AZ.
34. Yunfeng Huang<sup>§</sup>, Qin Hui, Marta Gwinn, Yijuan Hu, Arshed A. Quyyumi, Viola Vaccarino, **Yan V. Sun**. Sexual Differences in Genetic Predisposition of Coronary Artery Diseases. 2020 American Heart Association EPI/Lifestyle Council Meeting. Phoenix, AZ.
35. Chang Liu<sup>§</sup>, Qin Hui, Lawrence S. Phillips, Jacob Joseph, **Yan V Sun**. The Role of Interleukin-6 in Heart Failure and Subtypes: Results from Mendelian Randomization and Mediation Analysis. 2021 American Heart Association Scientific Sessions. Boston, MA.
36. Chang Liu\*, Zicheng Wang, Qin Hui, Yiyun Chiang, Junyu Chen\*, Jaysingh Brijkumar, Johnathan A. Edwards, Claudia E. Ordonez, Mathew R. Dudgeon, Henry Sunpath, Selvan Pillay, Pravi Moodley, Daniel R. Kuritzkes, Mohamed Y.S. Moosa, Dean P. Jones, Vincent C. Marconi, and **Yan V. Sun**. Association between host genome and metabolome among people with HIV in South Africa. International Congress of Human Genetics, March 2023, Cape Town, South Africa.
37. Boghuma K Titanji\*, Zeyuan Wang, Junyu Chen\*, Qin Hui, Kaku So-Armah, Matthew Freiberg, Amy C Justice, Xu Ke, Vincent C Marconi, **Yan V Sun**. Soluble CD14-associated DNA Methylation Sites predict Mortality among Men with Human Immunodeficiency Virus Infection. International Genetic Epidemiology Society annual meeting. September 2022. Paris, France.
38. Zakaria Almuwaqqat<sup>§</sup>, Qin Hui, Jin Zhou, Benjamin F Voight, Yuk-lam Ho, Daniel Posner, Jason Vassy, Peter Wilson and **Yan Sun**. Associations Between Long-Term Body Mass Index Variability and Adverse Cardiovascular Outcomes: Million Veteran Program Study. Oral Presentation. AHA EPI-Lifestyle Council Meeting. March 2023 Boston, MA
39. Chang Liu<sup>§</sup>, Yiyun Chiang, Qin Hui, Peter Wilson, Jacob Joseph and **Yan Sun**. Body Mass Index Variability in Relation to Heart Failure and Outcomes. Poster Presentation. AHA EPI-Lifestyle Council Meeting. March 2023 Boston, MA

## SELECTED ORAL/PLANARY PRESENTATIONS AT MEETINGS

- “Finding Familial Hypercholesterolemia in the Million Veterans Program”. FH Global Summit 2019, Atlanta, GA. October 21, 2019.
- “Genomic and Phenomic Analyses of Cardiovascular Disease Risk among Multi-ethnic Population – a Large-scale Biobank Study” 1<sup>st</sup> International Symposium of Genomic and Translational Medicine, Suzhou, Jiangsu, China. June 15, 2018.
- “Phenome-wide Association Study of Familial Hypercholesterolemia Variants among Multi-ethnic Veterans” American Heart Association Scientific Sessions, Anaheim, CA. November 13, 2017.
- “Designs and Analytical Methods in Multi-omics Studies of Complex Diseases”. 25<sup>th</sup> World Congress of Psychiatric Genetics, Orlando, FL. October 15, 2017.
- “Integration of Genomic and Phenomic Data in Cardiovascular Disease Research”. Thinking BIG Symposium, Atlanta, GA. August 10, 2017
- “Metabolomic features fine-map the DNA methylation signature of cigarette smoking”. 13th International Congress of Human Genetics (ICHG), Kyoto, Japan. April 5, 2016
- “X chromosome-wide analysis identifies DNA methylation sites influenced by cigarette smoking”. 24th Annual Meeting of the International Genetic Epidemiology Society (IGES), Baltimore, MD. October 4, 2015.
- “Collapsing Methods”. Genetic Analysis Workshop (GAW) 17, Cambridge, MA. October 14, 2010.
- “Data Mining”. Genetic Analysis Workshop (GAW) 16, St. Louis, September 18, 2008.
- “Decision Trees and Random Forests”. 17th Annual Meeting of the International Genetic Epidemiology Society (IGES), St. Louis, September 14, 2008.
- “A Fast Implementation of Scan Statistic for Identifying Chromosomal Patterns of Genome Wide Association Studies” 16th Annual Meeting of the International Genetic Epidemiology Society (IGES), York, England, September 9, 2007.
- “*In Silico* Identification of Dioxin Response Elements in Human, Mouse and Rat Genomic Sequences”. 2<sup>nd</sup> Annual Great Lakes Bioinformatics Retreat, East Lansing, MI. August, 2003

## **INVITED PRESENTATIONS**

- “Design and analysis considerations of multi-omics integration in population studies”. Summer Institute on Symptoms and Omics. Atlanta. June 10<sup>th</sup>, 2022.
- “Integration of Genomics and Multi-omics in Public Health Research”. Indiana University Bloomington. March 9<sup>th</sup>, 2021.
- “Genomic and Phenomic Study of Cardiovascular Disease Risk among Multi-ethnic Population”. Chinese University of Hong Kong School of Public Health, Hong Kong, China. October 4<sup>th</sup>, 2018.
- “Study Design and Application of Multi-omics Research in Twins”. Peking University School of Public Health, Beijing, China. June 28<sup>th</sup>, 2018.
- “Genomic and Phenomic Study of Cardiovascular Disease Risk among Multi-ethnic Population”. Beijing Institute of Heart, Lung and Blood Vessel Diseases, Beijing, China. June 27<sup>th</sup>, 2018
- “Multi-omic Epidemiology Study - A System Level Approach to Understanding Complex Diseases”, Beijing Institute of Heart, Lung and Blood Vessel Diseases, Beijing, China. July 8<sup>th</sup>, 2016.



- “Epigenetic Epidemiology of Human Diseases”, CDC University, Atlanta, GA. May 21<sup>st</sup>, 2015
- “Epigenetic Epidemiology of Cardiovascular Disease”, University of Vermont College of Medicine, Burlington, VT. April 29<sup>th</sup>, 2015
- “Environmental Influences on Human Epigenome and Diseases” Xiamen University, Xiamen, China. December, 2014
- “Epigenome-wide association study: Study Designs and Analytical Methods” Tongji University, Shanghai, China. November, 2014
- “Epigenomic-wide Association Study (EWAS) among Monozygotic Twins”. Beijing Institute of Genomics (BIG), Chinese Academy of Sciences, Beijing, China. May 12, 2014
- “Epigenomic Epidemiology - Epigenetic Mechanism underlying Chronic Diseases”. Beijing Institute of Genomics (BIG), Chinese Academy of Sciences, Beijing, China. July 2, 2013
- “Gene-Gene Interaction in Complex Human Traits”. Department of Biochemistry and Molecular Biology, University of Georgia, Athens, GA. February 28, 2013
- “Genome-wide Association Study of High Blood Pressure across Multiple Ethnic Groups”. Fudan University, Shanghai, China. September 11, 2012
- “Genome-wide Analysis of Rare Genetic Variants”. Kaiser Permanente Center for Health Research Southeast, Atlanta, GA. October 9, 2012
- “Identification of Gene-Gene Interactions Associated with Complex Traits”. Department of Biostatistics and Bioinformatics, Rollins School of Public Health, Emory University, Atlanta, GA. Dec. 1, 2011
- “Understanding the Gene-Environment Interaction of Common Diseases – from the Molecular Level to the Population Level”. Department of Community and Family Medicine, Dartmouth College, NH. May 5, 2011
- “Understanding the Gene-Environment Interaction of Common Diseases on the Molecular Level”. Department of Epidemiology, Rollins School of Public Health, Emory University, Atlanta, GA. October 25, 2010.
- “Genetic and Epigenetic Predictors of Common Diseases”. Beijing Institute of Heart, Lung and Blood Vessel Diseases. Beijing, China. June 24, 2010
- “Understanding the Common Disease Risks on the Molecular Level”. Vanderbilt School of Medicine, Nashville, TN. February 11, 2010
- “Genomic Epidemiology of Hypertension”. Department of Epidemiology, Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD. January 29, 2010
- “Identifying Genomic Predictors of Common Human Diseases”. Interdisciplinary Group Seminar, University of Michigan, Ann Arbor, MI. November 29, 2007
- “Learning the Genetics of Common Human Diseases: Applications of Machine Learning Methods in genomic epidemiological studies”. Department of Computer Science, Wayne State University, Detroit, MI. October 23, 2007
- “A Scan Statistic for Identifying Chromosomal Regions in Genomic Studies”. Bioinformatics Workshop, Ann Arbor, MI. December 1, 2006
- “Genome Analysis Starting from *E. coli* K12, Bioinformatics Studies in Protein Families and Protein Evolution”. Department of Biochemistry and Molecular Biology, Michigan State University, East Lansing, MI. May 4, 2002

“*CadC*, a Pb (II)/Cd (II)/Zn (II) Inducible Repressor”. The Josephine Bay Paul Center for Comparative Molecular Biology and Evolution, Marine Biological Laboratory, Woods Hole, MA. May, 2001.

“Pb (II)-translocating P-type ATPases and Their Expression Regulation”. Chung Shan Medical and Dental College, Taichung, Taiwan. June, 1999.

## COMMITTEE AND ADMINISTRATIVE SERVICE

*International Genetic Epidemiology Society (IGES)*

2012-2015 Chair, Membership Committee

2015-present Member, Education Committee

*American Heart Association (AHA)*

2018-present Member, Molecular Determinants of Cardiovascular Health Science

*Emory University*

2018-present co-chair, RSPH Computation and Data Science Advisory Group (CDAG)

2017-present Member, RSPH Research Advisory Council (RAC)

2011-present Member, Department of Epidemiology PhD Admission Committee

2016-2020 Member, Department of Epidemiology MPH Admission Committee

2014-2018 Member, Department of Epidemiology Mentorship Committee

2014-2017 Emory University Research Health and Safety Committee (RHSC)

2014-2017 Emory University Institutional Biosafety Committee (IBC)

## AWARDS

ASBMB/PABMB Graduate/Postdoctoral Travel Award, 1999

HGV 2012 Travel Award

## MEMBERSHIPS

American Heart Association (AHA): Fellow of American Heart Association (FAHA)

American Society of Human Genetics (ASHG)

International Genetic Epidemiology Society (IGES)

## GRANT REVIEW

NIH ZRG1 PSE A 56 (2019); ZAI1 MC-D (M1) (2019); CHSB (2020); PSE-N (2021); SSPA (2021); ZRG1 EMNR J 55 (2021); SSPA (2022).

American Heart Association (AHA) CVGPS review committee

Pathway Grants (2014-2018); Grand Challenge Award (2015-2018)

AHA Go Red for Women Strategically Focused Research Network (2016)

U.S.-Israel Binational Science Foundation (2014)

Emory Synergy Award (2018, 2019)

Emory ACTSI Pilot Grant (2017, 2019)

Emory RSPH Dean's Pilot Grant (2019)

Emory HERCULES Center Pilot Grant (2014)

**GUEST EDITOR:** Special Issue on "Genetic Epidemiology: Study designs and methods post GWAS" *Human Genetics*, 2012

**GUEST EDITOR:** PLoS Genetics

## SCIENTIFIC JOURNAL REVIEW

*Annals of Epidemiology*

Annals of Human Genetics  
American Journal of Epidemiology  
Arteriosclerosis, Thrombosis, and Vascular Biology (ATVB)  
BioData Mining  
Bioinformatics  
Biological Research of Nursing  
BMC Bioinformatics  
Circulation  
Circulation: Cardiovascular Genetics  
Circulation: Genomic and Precision Medicine  
Clinical Epigenetics  
Clinical Pharmacokinetics  
Environmental Health Perspective  
Epidemiology  
Epigenetics  
Epigenomics  
European Heart Journal  
European Journal of Human Genetics  
Genetic Epidemiology  
Human Genetics  
Hypertension  
International Journal of Epidemiology  
JAMA Cardiology  
Journal of Bioinformatics and Computational Biology  
Journal of Biological Chemistry  
Journal of Infectious Disease  
Lancet HIV  
Medical & Biological Engineering & Computing  
Nature Communications  
Nucleic Acid Research  
Pacific Symposium on Biocomputing  
PLoS Genetics  
PLoS One  
Statistical Applications in Genetics and Molecular Biology  
Statistics in Medicine

### **BOOK REVIEW**

Genetic Dissection of Complex Traits: Second Edition. Edited by Rao, D.C.