

CURRICULUM VITAE

Yan V. Sun

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Atlanta, GA 30322
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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

- 2024-present Professor (joint), Department of Medicine (Cardiology), School of Medicine, Emory University, Atlanta, Georgia
- 2024-present Professor (joint), Hubert Department of Global Health, Rollins School of Public Health, Emory University, Atlanta, Georgia
- 2022-present Professor, Department of Epidemiology, Rollins School of Public Health, Emory University, Atlanta, Georgia
- 2021-present Health Science Research Specialist, 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 - 03/31/2026 Total Cost \$4,091,053

National Institutes of Health (P01HL154996), 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 (R01DK139632), Narayan/Sun/Tandon **MPI**, “Molecular Prediction, Disease Progression, and Type 2 Diabetes (T2D) Phenotypes in South Asians”. 01/06/2025-12/31/2029. Total Costs: \$3,337,454.

National Institutes of Health (R01AI184529) Magee/Sun/Huaman **MPI**, "Tuberculosis infection and risk of diabetes mellitus and cardiovascular disease: Epigenetic and cardiometabolic trajectories after TB infection". 08/08/2025 - 07/31/2030. \$3,986,628.

National Institutes of Health (R01HL160793) 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

NIH (R01AG089759), Narayan/Levey/Alladi/Mohan/Prabhakaran MPI, **Yan Sun co-investigator**, “P-CARRS-BRAIN: Multi-domain (genetic, socio-behavioral, vascular) risk factors and prediction of Alzheimer’s Disease continuum in South Asians in India”. 9/1/2024-6/30/2029. Total Costs \$21,199,010.

National Institutes of Health (R01HL168894), 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.

National Institutes of Health (R21AI AI178324), Collins/Magee/Arunkumar MPI, **Yan Sun co-investigator** “Multiomics Characterization of Microbiome and Immunometabolic REmodeling in Tuberculosis Stress Hyperglycemia”, 4/1/2024 - 2/28/2026. Total Cost \$430,375

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 - 6/30/2025. 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.

National Institutes of Health (T32HL130025), Vaccarino (Program Director), Y. Sun **Training Faculty**, “Multidisciplinary Research Training to Reduce Inequities in Cardiovascular Health (METRIC)” 7/1/2016-6/30/2026

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

National Institute of Health (K23NS133497), Laura Scorr PI, **Yan Sun co-mentor**, “Immune Mechanisms in Cervical Dystonia” 9/1/2024 - 8/31/2029

Pending:

National Institutes of Health. Shao/Ali MPI, **Yan Sun co-investigator**. "From Evidence to Policy: Tailoring GLP-1RA Coverage for Optimal Impact and Equity". 04/01/2025-03/31/2030. Total Costs: \$3,891,472. Impact Score 20, 4th percentile.

Department of Veteran Affairs Merit (I01BX006990). **Sun PI** “Predictors and cardiovascular outcomes of longitudinal body weight changes in multi-ancestral Veterans”. 10/01/2025 - 09/30/2029. Total Cost \$1,059,452. Intend to fund.

National Institutes of Health, Lahiri PI., **Sun co-investigator, core co-director.** "Emory Specialized Center of Research Excellence (SCORE) on Sex Differences". 08/01/2025-07/31/2030. Total Costs: \$7,499,999.

National Institutes of Health R01, Gujral (PI), **Sun, co-investigator.** "Putting Phenotypes and Polygenics into Practice for Diabetes Care (4PDC)". 12/2025-11/2030. Total Costs: \$4,024,932. Impact Score 30, 10th percentile

National Institutes of Health (1R21DA065109), Hulgán/Samuels MPI, **Sun, co-investigator.** “Characterizing the role of mitochondrial DNA genetic variants and endophenotypes in SUD, neurologic diseases, and epigenetic age among Veterans with and without HIV”. 12/2025-11/2027. Total Costs: \$408,234. Impact Score 30.

National Institutes of Health (1R01HL185983), **Sun/Quyyumi (MPI).** "Multi-omic Predictors of Clinical Outcomes among People with Heart Failure and Subtypes". 04/01/2026-03/31/2031. Total Costs: \$3,897,466.

National Institutes of Health (R21AI1995261), **Sun/Gandhi (MPI).** " TBGWAS Proteomics". 12/01/2025 - 11/30/2027. Total Costs: \$430,375

National Institutes of Health R01, Alonso (PI), **Sun, co-investigator.** "Long-term effect of a randomized lifestyle intervention on inflammation pathways". 07/2025-06/2030. Total Costs: \$3,561,284

National Institutes of Health (1R01HL184122) Joseph/**Sun/Yazdani (MPI)** "Genetic, Deep Phenotyping, and Multi-Modal AI Approach for Heart Failure Novel Sub-types and Therapeutics". 12/2025-11/2030. Total Costs: \$3,943,057

National Institutes of Health R21, Liu (PI), **Sun, co-investigator.** "Leveraging Proteomic Scores of Obesity-Related Phenotypes for Enhanced Prediction of Heart Failure". 12/2025-11/2027. Total Costs: \$234,750

Previous:

National Institutes of Health (R01AI139406), Gandhi /**Sun MPI** “Characterization of Genomics and Metabolomics among Individuals Highly-Exposed, but resistant to *Mtb* Infection”. 7/01/2018-06/30/2025. Total Cost \$3,729,442

National Institutes of Health (R21AI152031), Gandhi/**Sun contact MPI,** “Epigenetic Study of Resistance to Infection by Mycobacterium tuberculosis”, 6/8/2021 - 5/31/2025. Total Cost \$430,063

Veteran Affairs, MVP065, Joseph/Jacobson/**Sun MPI,** “Artificial Intelligence to Resolve Heterogeneity of Heart Failure with Preserved Ejection Fraction and Enable Precision Care”. 10/1/2022-6/30/2025. Total Cost: \$1,500,000.

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.

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 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)

2024-present Nanzha Abi (Emory University)
2023-present Matheus Fernandes Gyorfy (Emory University)
2023-present Jeffery Osei (Emory University)
2020-present Junyu Chen (Emory University)
2019-2024 Chang Liu (Emory University)
2015-2019 Yunfeng Huang (Emory University)

PhD Students (Committee Member)

2025-present Nazha Diwan (Emory University)
2025-present Hannah Seagle (Vanderbilt University)
2018-2023 Sonia Tandon (Emory University)
2014-2018 Pratik Pimple (Emory University)

Post-doc

2023-2024 Bojung Seo PhD
2022-2025 Pradeep Tiwari PhD
2017-2018 Kristen M. Brown PhD
2009-2011 Wei Chen PhD (Research Assistant Professor, University of Michigan)

Junior Faculty (Co-Mentor, 5)

2024-present Laura Scorr MD
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, 40)

2025-present Dee Yanong, Ruth Wei, Jie Zhao
2024-2025 Caspar Lu
2022-2024 Nanzha Abi
2023-2024 Nick Weaver, Collin Brummel
2021-2023 Matheus Fernandes Gyorfy, Jeffery Osei, Alec Power, Jiyuan Ren
2020-2022 Seibi Kobara
2019-2021 Zhuyun Mao, Yutong Yao, Mitchell Lee

2018-2020	Yijin Xiang, Qiyang Wei, Pu Wang, Lijin Wang, Jiali Chen
2018-2019	Tianxiao Liu
2017-2019	Chengchen (Cherry) Li, Kellan Burrell, Huimin (Mia) Zhong, Zhenyu Gan
2016-2018	Junyu Chen, Raina Mathur
2015-2017	Chang Liu
2014-2016	Robert Y Eagar, Jie Yin, Xi Liu
2014-2015	Daniella Klebaner, Yunfeng Huang
2013-2016	Michael Wong
2013-2015	Yixiang Li
2011-2013	Weiyang Li, Alexander K. Zaharoff, Yi-Ting Chou, Wenruo Hu
2011-2012	Yu-Hsuan (Amanda) Chuang
<u>Other Trainees</u>	
2022-2023 (Humphrey Fellow)	Yan Song MD/PhD

PEER- REVIEWED ORIGINAL RESEARCH (# equal contribution, * trainee)

Google Scholar (H-index 67)

First/Senior Author (79)

NCBI Bibliography

1. Smit RAJ, Wade KH, Hui Q, Arias JD, Yin X, Christiansen MR, Yengo L, Preuss MH, Nakabuye M, Rocheleau G, Graham SE, ..., Okada Y, Willer CJ, Young KL, Fatumo S, McCaffery JM, Timpson NJ, Hirschhorn JN, **Sun YV**, Berndt SI, Loos RJF. Polygenic prediction of body mass index and obesity through the life course and across ancestries. *Nat Med*. 2025 Jul 21. doi: 10.1038/s41591-025-03827-z. PMID: 40691366.
2. Shivani A. Patel, Dimple Kondal, Deepa Mohan, Howard Chang, Venkatesan Radha, Sailesh Mohan, **Yan V. Sun**, Arshed Quyyumi, Mohammed K. Ali, Nikhil Tandon, Viswanathan Mohan, Dorairaj Prabhakaran, K. M. Narayan. Population-Based Longitudinal Investigation of South Asians: A Resource for Unravelling the Puzzle of Diabetes and Associated Chronic Diseases. *Nat Med*. 2025. Accepted.
3. Nobuyuki Enzan, Kazuo Miyazawa, Satoshi Koyama, Ryo Kurosawa, Hirotaka Ieki, Hiroki Yoshida, Fumie Takechi, Masashi Fukuyama, Ryosuke Osako, Kohei Tomizuka, Xiaoxi Liu, Kouichi Ozaki, Yoshihiro Onouchi, BioBank Japan Project, Koichi Matsuda, Yukihide Momozawa, Hiroyuki Aburatani, Yoichiro Kamatani, Takanori Yamaguchi, Hiroshi Akazawa, Koichi Node, Patrick T. Ellinor, Michael G. Levin, Scott M. Damrauer, Benjamin F. Voight, Jacob Joseph, **Yan V. Sun**, Chikashi Terao, Toshiharu Ninomiya, Issei Komuro, Kaoru Ito. Genome-wide analysis of heart failure yields insights into disease heterogeneity and enables prognostic prediction in the Japanese population. *Nature Communications*. 2025 Accepted.
4. Amonae M. Dabbs-Brown, Chang Liu, Qin Hui, Peter W.F. Wilson, Jin J. Zhou, Marta Gwinn, **Yan V. Sun**. Identification of gene-sex hormone interactions associated with type 2 diabetes among men and women. *PLOS Genetics*. 2025. Accepted.
5. Adithya K. Yadalam, Chang Liu, Qin Hui, Alexander C. Razavi, Laurence S. Sperling, Arshed A. Quyyumi, **Yan V. Sun**. Large-Scale Proteomics-Based Risk Score for the Prediction of Incident Cardio-Kidney-Metabolic Disease Risk. *Circulation GPM*. 2025. Accepted.
6. Mohanraj Krishnan, Mohammad Yaser Anwar, Anne E Justice, Geetha Chittoor, Hung-Hsin Chen, Rashedeh Roshani, Alyssa Scartozzi, Rachel R Dickerson, Roelof A.J Smit, Michael H Preuss, Nathalie Chami Benjamin S Hadad, Esteban J Parra, Miguel Cruz, Qin Hui, Peter W.F Wilson, **Yan V Sun**, Xiaoyu Zhang, Gregorio V Linchangco, Sharon L.R Kardia, Jessica D Faul, David R Weir, Lawrence F Bielak, Heather M Highland, Kristin L

- Young, Baiyu Qi, Yujie Wang, Myriam Fornage, Christopher Haiman, Iona Cheng, Ulrike Peters, Charles Kooperberg, Steven Buyske, Joseph B McCormick, Susan P Fisher-Hoch, Frida Lona-Durazo, Jesus Peralta, Jamie Gomez-Zamudio, Stephen S Rich, Kendra R Ferrier, Ethan M Lange, Christopher R Gignoux, Eimear E Kenny, Genevieve L Wojcik, Kelly Cho, Michael J Gaziano, Luc Djousse, Shuwei Liu, Dhananjay Vaidya, Renée de Mutsert, Navya S Josyula, Christopher R Bauer, Wei Zhao, Ryan W Walker, Jennifer A Smith, Leslie A Lange, Mariah C Meyer, Ching-Ti Liu, Lisa R Yanek, Miryoung Lee, Laura M Raffield, Ruth J.F Loos, Penny Gordon-Larsen, Jennifer E Below, Kari E North, Mariaelisa Graff. Genome-wide association study provides novel insight into the genetic architecture of severe obesity. *PLOS Genetics*. 2025. Accepted.
7. Maggie Wang*, Chang Liu*, Anish Shah, Yi-An Ko, Rachel Lampert, **Yan V. Sun**, Kasra Moazzami, Mariana Garcia, Zakaria Almuwaqqat, Gabriel Najarro, Samaah Sullivan, Paolo Raggi, J Douglas Bremner, Arshed A. Quyyumi, Viola Vaccarino, Alanna A. Morris, Amit J. Shah. Association of Stress-induced Autonomic Dysfunction with Heart Failure in Individuals with Stable Coronary Artery Disease. *IJC Heart & Vasculture*. Accepted.
 8. Madlala HP, Chen J*, Jao J, Myer L, Mendham AE, Pfeiffer C, Bell L, Dugas LR, Goedecke JH, **Sun YV**, Bengtson AM. Targeted serum proteomics in postpartum South African women living with and without HIV, correlations with anthropometry and adiposity. *AIDS Res Ther*. 2025 Aug 4;22(1):76.
 9. Osei J*, Razavi AC, Quyyumi AA, Eapen DJ, **Sun YV**, Khoury MJ, Sperling L. Sex and racial differences in prevalence and clinical characteristics of people living with LDLR and PCSK9 familial hypercholesterolemia genetic variants: Data from the All of Us Research program. *Am J Prev Cardiol*. 2025 Jun 1;22:101024. doi: 10.1016/j.ajpc.2025.101024. PMID: 40534628
 10. Zhang Z*, Wang L, Meng W, Liu C, Shao H, **Sun YV**, Guo J, Bian J, Yin R, Yang C. Type 2 Diabetes Subtyping via Phenotype and Genotype Co-Learning. *Stud Health Technol Inform*. 2025 Aug 7;329:1064-1068. doi: 10.3233/SHTI251002. PMID: 40776020. (MedInfo 2025 **Best Paper Award 1st Place**)
 11. Yadalam AK*, Liu C, **Sun YV**, Mandawat A, Quyyumi AA, Hayek SS. Proteomics-Based Soluble Urokinase Plasminogen Activator Receptor Levels and Long-Term Cardiovascular Outcomes in Survivors of Breast Cancer: A UK Biobank Study. *J Am Heart Assoc*. 2025 May 6;14(9):e039728. doi: 10.1161/JAHA.124.039728. Epub 2025 May 2. PMID: 40314383
 12. Janopaul-Naylor J, Yadalam AK, Chan JSK, Dee EC, **Sun YV**, Cantu SM, Mandawat A, Patel SA. Modifiable cardiovascular risk factors amongst men with and without prostate cancer in a large, prospective registry. *Clin Genitourin Cancer*. 2025 Jun;23(3):102340. doi: 10.1016/j.clgc.2025.102340. Epub 2025 Mar 28. PMID: 40252318.
 13. Zhang X, Brody JA, Graff M, Highland HM, Chami N, Xu H, Wang Z, Ferrier KR, Chittoor G, Josyula NS, Meyer M, Gupta S, Li X, Li Z, Allison MA, Becker DM, Bielak LF, Bis JC, Boorgula MP, Bowden DW, Broome JG, Buth EJ, Carlson CS, Chang KM, Chavan S, Chiu YF, Chuang LM, Conomos MP, DeMeo DL, Du M, Duggirala R, Eng C, Fohner AE, Freedman BI, Garrett ME, Guo X, Haiman C, Heavner BD, Hidalgo B, Hixson JE, Ho YL, Hobbs BD, Hu D, Hui Q, Hwu CM, Jackson RD, Jain D, Kalyani RR, Kardia SLR, Kelly TN, Lange EM, LeNoir M, Li C, Le Marchand L, McDonald MN, McHugh CP, Morrison AC, Naseri T, O'Connell J, O'Donnell CJ, Palmer ND, Pankow JS, Perry JA, Peters U, Preuss MH, Rao DC, Regan EA, Reupena SM, Roden DM, Rodriguez-Santana J, Sitlani CM, Smith JA, Tiwari HK, Vasani RS, Wang Z, Weeks DE, Wessel J, Wiggins KL, Wilkens LR, Wilson PWF, Yanek LR, Yoneda ZT, Zhao W, Zöllner S, Arnett DK, Ashley-

- Koch AE, Barnes KC, Blangero J, Boerwinkle E, Burchard EG, Carson AP, Chasman DI, Ida Chen YD, Curran JE, Fornage M, Gordeuk VR, He J, Heckbert SR, Hou L, Irvin MR, Kooperberg C, Minster RL, Mitchell BD, Nouraei M, Psaty BM, Raffield LM, Reiner AP, Rich SS, Rotter JI, Benjamin Shoemaker M, Smith NL, Taylor KD, Telen MJ, Weiss ST, Zhang Y, Heard-Costa N, **Sun YV**, Lin X, Cupples LA, Lange LA, Liu CT, Loos RJF, North KE, Justice AE. Whole genome sequencing analysis of body mass index identifies novel African ancestry-specific risk allele. *Nat Commun*. 2025 Apr 11;16(1):3470. doi: 10.1038/s41467-025-58420-2. PMCID: PMC11992084.
14. Yadalam AK*, Razavi AC, Patel SA, Liu C, **Sun YV**, Mandawat A. Hemoglobin A1c stratifies risk of adverse cardiovascular outcomes in prostate cancer survivors in the UK Biobank: a cohort study. *Cardiooncology*. 2025 Apr 10;11(1):36.
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SELECTED POSTERS AND ABSTRACTS (§ trainee, as first or last author, selected)

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12. **Sun, Y.V.**, Kardia, S.L.R. "Identification of epistatic effects using protein-protein interaction database" 18th Annual Meeting of the International Genetic Epidemiology Society (IGES), Kahuku, Hawaii, 2009.
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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.
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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, Ibhar 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
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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§, 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§, Yunfeng Huang§, 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§, 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§, 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§, 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[§], 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

- “Genomic and Multi-omic Analyses of Longitudinal Phenotypes from Electronic Health Records”. 11th International Statistical Genetics and Genomics (ISGG) Conference. Xi’An, China, July 4th, 2025.
- "Epigenetic Factors Predict Incident Heart Failure with Preserved Ejection Fraction", American Heart Association (AHA) Scientific Sessions. Chicago, IL. November 16th, 2024
- “Multi-Ancestry Genome-Wide Association Study of Age-at-Onset in Heart Failure”. American Heart Association (AHA) EPI-Lifestyle Council Meeting. Chicago, IL. March 21st, 2024
- “Correction for Collider Bias in Diabetes-Related Heart Failure GWAS due to Bidirectional Relationship between Heart Failure and Diabetes”. American Society of Human Genetics (ASHG) annual meeting, Washington DC. November 3rd, 2023.
- “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” 1st 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”. 25th 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”. 2nd Annual Great Lakes Bioinformatics Retreat, East Lansing, MI. August, 2003

INVITED PRESENTATIONS

- “Genetic Epidemiology of Heart Failure and Subtypes”. Center for Genetic Epidemiology. University of Southern California. September 25th, 2024.
- “Genetic Epidemiology of Heart Failure and Subtypes”. Cardiology Basic Science Seminar. Emory University School of Medicine. September 16th, 2024.
- “Genetic Architecture of Coronary Artery Disease and Heart Failure”. Cardiology grand rounds. Providence VA Healthcare System. March 14th, 2024.
- “Design and analysis considerations of multi-omics integration in population studies”. Summer Institute on Symptoms and Omics. Atlanta. June 10th, 2022.
- “Integration of Genomics and Multi-omics in Public Health Research”. Indiana University Bloomington. March 9th, 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 4th, 2018.
- “Study Design and Application of Multi-omics Research in Twins”. Peking University School of Public Health, Beijing, China. June 28th, 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 27th, 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 8th, 2016.
- “Epigenetic Epidemiology of Human Diseases”, CDC University, Atlanta, GA. May 21st, 2015
- “Epigenetic Epidemiology of Cardiovascular Disease”, University of Vermont College of Medicine, Burlington, VT. April 29th, 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)

2018-2023 Member, Molecular Determinants of Cardiovascular Health Science

Emory University

2022-present Member, Emory AI Infrastructure Faculty Advisory Committee

2022-present Member, Emory ITSC Research Subcommittee

2023-present Member, RSPH Appointments, promotion, and tenure (APT) Committee

2024-present Chair, RSPH Computation and Data Science Advisory Group (CDAG)

2018-2024 co-chair, RSPH Computation and Data Science Advisory Group (CDAG)

2016-present Member, Department of Epidemiology PhD Qualify Exam Committee

2011-2024 Member, Department of Epidemiology PhD Admission Committee

2017-2023 Member, RSPH Research Advisory Council (RAC)

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)

International AIDS Society (IAS)

GRANT REVIEW

NIH ZRG1 PSE A 56 (2019); ZAI1 MC-D (M1) (2019); CHSB (2020); PSE-N (2021); SSPA (2021); ZRG1 EMNR (2021); SSPA (2022); ZDK1 GRB (2024); CSR Biobehavioral Processes Branch SEP (2024); Disease Control and Applied Immunology Review Branch SEP (2025).

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, American Journal of Human Genetics, Arteriosclerosis, Thrombosis, and Vascular Biology (ATVB), BioData Mining, Bioinformatics, Biological Research of Nursing, Biometrical Journal, 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, Nature Medicine, 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.