

CURRICULUM VITAE
BING YU, PhD, FAHA

PRESENT TITLE: Professor

ADDRESS: Department of Epidemiology, School of Public Health (SPH)
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ACADEMIC POSITIONS:

2024-	<i>Professor</i> Department of Epidemiology, UTHealth Houston SPH, Houston, TX
2023-present	<i>Co-Director</i> Human Genetics Center, UTHealth Houston SPH, Houston, TX
2021-present	<i>JLH Foundation Chair in Transplant Prevention</i> UTHealth Houston SPH, Houston, TX
2019-2024	<i>Associate Professor with tenure</i> Department of Epidemiology, Human Genetics and Environmental Sciences (EHGES), UTHealth Houston SPH, Houston, TX
2015-2019	<i>Tenure-track Assistant Professor</i> EHGES, UTHealth Houston SPH, Houston, TX
2013-2015	<i>Postdoctoral fellow</i> Human Genetics Center, UTHealth Houston SPH, Houston, TX

EDUCATION:

2013	Ph.D. Epidemiology, UTHealth Houston, Houston, TX, US
2008	M.S. Biostatistics, Fudan University, Shanghai, China
2003	B.M. Preventive Medicine, Fudan University, Shanghai, China

HONORS AND AWARDS:

2019	Fellow of the American Heart Association
2017	Research Mentor/Mentee Award, UTHealth Houston SPH
2014	Early Career Award Cohorts of Heart and Aging Genomic Epidemiology (CHARGE) Consortium
2014	Charles J. Epstein Trainee Award for Excellence in Human Genetics Research (Finalist) - American Society of Human Genetics (ASHG)
2013	The Jeremiah and Rose Stamler Research Award for New Investigators American Heart Association (AHA)
2012	Rufus K. Guthrie Scholarship, UTHealth Houston SPH
2011-2013	Fellowship from the Houston Laboratory and Population Science Training Program in Gene and Environment Interaction

RESEARCH:

Peer Reviewed Publications (trainee papers under Dr. Yu's direct supervision are underscored):

1. Wang N, Ockerman FP, Zhou LY, Grove ML, Alkis T, Barnard J, Bowler RP, Clish CB, Chung S, Drzymalla E, Evans AM, Franceschini N, Gerszten RE, Gillman MG, Hutton SR, Kelly RS, Kooperberg C, Larson MG, Lasky-Su J, Meyers DA, Woodruff PG, Reiner AP, Rich SS, Rotter JI, Silverman EK, Vasani RS, Weiss ST, Wong KE, Wood AC, Wu L, Yarden R, Blackwell TW, Smith AV, Chen H, Raffield LM, **Yu B**. Genetic architecture and analysis practices of circulating metabolites in the NHLBI Trans-Omics for Precision Medicine Program. *Am J Hum Genet*. 2025 Sep 18. PubMed PMID: 40972578.
2. Yang J, Bernard L, Chen J, Sullivan VK, **Yu B**, Rhee EP, Welling PA, Rebholz CM. Plasma Proteomic Profile of Dietary Potassium and Incident Chronic Kidney Disease. *Clin J Am Soc Nephrol*. 2025 Sep 18. PubMed PMID: 40965986
3. Yoshida Y, Nguyen NQ, Moon EH, Rebholz C, Skali H, Arthur V, Echouffo-Tcheugui JB, Ballantyne C, Selvin E, Shah A, Kaplan R, Rodriguez CJ, Qi Q, Cheng S, **Yu B**. A Metabolomics Study of Cardiac Dysfunction in Hyperglycemia: Findings From the Atherosclerosis Risk in Communities (ARIC) Study and the Hispanic Community Health Study/Study of Latinos (HCHS/SOL). *Diabetes Care*. 2025 Sep 1;48(9):1589-1597. PubMed PMID: 40729824.
4. Faquih T, Potts KS, Nagarajan P, **Yu B**, Kaplan R, Isasi CR, Qi Q, Taylor KD, Liu PY, Strausz SJ, Ollila HM, Huang T, Tracy RP, Johnson C, Rich SS, Clish CB, Rotter JI, Redline S, Sofer T, Wang H. Steroid hormone biosynthesis and dietary related metabolites associated with excessive daytime sleepiness. *EBioMedicine*. 2025 Sep;119:105881. PubMed PMID: 40835488.
5. Yang H, Luo K, Peters BA, Wang Y, Zhang Y, Daviglus M, Pirzada A, Cordero C, **Yu B**, Burk RD, Kaplan R, Qi Q. Diet, Gut Microbiota, and Histidine Metabolism Toward Imidazole Propionate Production in Relation to Type 2 Diabetes. *Diabetes Care*. 2025 Jul 1;48(7):1225-1232. PubMed PMID: 40343485.
6. Buckley LF, Dorbala P, Lamberson V, Claggett BL, Ren Y, Grams ME, Coresh J, Matsushita K, Demmer RT, Dubin RF, Deo R, Ganz P, Ballantyne CM, Hoogeveen RC, **Yu B**, Shah AM. Linking Chronic Kidney Disease to Incident Heart Failure and Adverse Cardiac Remodeling Through the Plasma Proteome: The ARIC Study. *JACC Heart Fail*. 2025 Aug;13(8):102512. PubMed PMID: 40578264.
7. Kirmani S, Huan T, Van Amburg JC, Joehanes R, Uddin MM, Nguyen NQH, **Yu B**, Brody JA, Fornage M, Bressler J, Sotoodehnia N, Ong DA, Puddu F, Floyd JS, Ballantyne CM, Psaty BM, Raffield LM, Natarajan P, Conneely KN, Weinstock JS, Carson AP, Lange LA, Ferrier K, Heard-Costa NL, Murabito J, Bick AG, Levy D. Epigenome-wide DNA methylation association study of CHIP provides insight into perturbed gene regulation. *Nat Commun*. 2025 May 20;16(1):4678. PubMed PMID: 40393957.
8. Yang H, Wang Y, Luo K, Mossavar-Rahmani Y, Cordero C, Ostfeld RJ, Martinez C, Maldonado L, Pirzada A, Daviglus M, **Yu B**, Hu FB, Kaplan RC, Qi Q. Dietary patterns, serum metabolites, and risk of cardiovascular disease in United States Hispanic/Latino adults: a prospective analysis of the Hispanic Community Health Study/Study of Latinos (HCHS/SOL). *Am J Clin Nutr*. 2025 Jul;122(1):92-100. PubMed PMID: 40389082.

9. Rooney MR, Chen J, Ballantyne CM, Hoogeveen RC, Boerwinkle E, **Yu B**, Walker KA, Schlosser P, Selvin E, Chatterjee N, Couper D, Grams ME, Coresh J. Correlations Within and Between Highly Multiplexed Proteomic Assays of Human Plasma. *Clin Chem*. 2025 Apr 2;71(6):677-87. PubMed PMID: 40172053.
10. Henry A, Mo X, Finan C, Chaffin MD, [...], **Yu B**, [...], Hingorani AD, Wells Q, Lumbers RT. Genome-wide association study meta-analysis provides insights into the etiology of heart failure and its subtypes. *Nat Genet*. 2025 Apr;57(4):815-828. PubMed PMID: 40038546.
11. Ramonfaur D, Buckley LF, Arthur V, Yang Y, Claggett BL, Ndumele CE, Walker KA, Austin T, Odden MC, Floyd JS, Sanders-van Wijk S, Njoroge J, Kizer JR, Kitzman D, Konety SH, Schrack J, Liu F, Windham BG, Palta P, Coresh J, **Yu B**, Shah AM. High Throughput Plasma Proteomics and Risk of Heart Failure and Frailty in Late Life. *JAMA Cardiol*. 2024 Jul 1;9(7):649-658. PubMed PMID: 38809565.
12. Saadatagah S, Naderian M, Uddin M, Dikilitas O, Niroula A, Schuermans A, Selvin E, Hoogeveen RC, Matsushita K, Nambi V, **Yu B**, Chen LY, Bick AG, Ebert BL, Honigberg MC, Li N, Shah A, Natarajan P, Kullo IJ, Ballantyne CM. Atrial Fibrillation and Clonal Hematopoiesis in TET2 and ASXL1. *JAMA Cardiol*. 2024 Jun 1;9(6):497-506. PubMed PMID: 38598228.
13. Luo K, Taryn A, Moon EH, Peters BA, Solomon SD, Daviglus ML, Kansal MM, Thyagarajan B, Gellman MD, Cai J, Burk RD, Knight R, Kaplan RC, Cheng S, Rodriguez CJ, Qi Q, **Yu B**. Gut microbiota, blood metabolites, and left ventricular diastolic dysfunction in US Hispanics/Latinos. *Microbiome*. 2024 May 10;12(1):85. PubMed PMID: 38725043.
14. Alkis T, Luo X, Wall K, Brody J, Bartz T, Chang PP, Norby FL, Hoogeveen RC, Morrison AC, Ballantyne CM, Coresh J, Boerwinkle E, Psaty BM, Shah AM, **Yu B**. A polygenic risk score of atrial fibrillation improves prediction of lifetime risk for heart failure. *ESC Heart Fail*. 2024 Apr;11(2):1086-1096. PubMed PMID: 38258344.
15. Liu G, Nguyen NQH, Wong KE, Agarwal SK, Boerwinkle E, Chang PP, Claggett BL, Locher LR, Ma J, Matsushita K, Rodriguez CJ, Rossi JS, Russell SD, Stacey RB, Shah AM, **Yu B**. Metabolomic Association and Risk Prediction With Heart Failure in Older Adults. *Circ Heart Fail*. 2024 Mar;17(3):e010896. PubMed PMID: 38426319.
16. Aboelsaad IAF, Claggett BL, Arthur V, Dorbala P, Matsushita K, Lennep BW, **Yu B**, Lutsey PL, Ndumele CE, Farag YMK, Shah AM, Buckley LF. Plasma Ferritin Levels, Incident Heart Failure, and Cardiac Structure and Function: The ARIC Study. *JACC Heart Fail*. 2024 Mar;12(3):539-548. PubMed PMID: 38206230.
17. Shelbaya K, Arthur V, Yang Y, Dorbala P, Buckley L, Claggett B, Skali H, Dufresne L, Yang TY, Engert JC, Thanassoulis G, Floyd J, Austin TR, Bortnick A, Kizer J, Freitas RCC, Singh SA, Aikawa E, Hoogeveen RC, Ballantyne C, **Yu B**, Coresh J, Blaha MJ, Matsushita K, Shah AM. Large-Scale Proteomics Identifies Novel Biomarkers and Circulating Risk Factors for Aortic Stenosis. *J Am Coll Cardiol*. 2024 Feb 6;83(5):577-591. PubMed PMID: 38296402.
18. Shah AM, Myhre PL, Arthur V, Dorbala P, Rasheed H, Buckley LF, Claggett B, Liu G, Ma J, Nguyen NQ, Matsushita K, Ndumele C, Tin A, Hveem K, Jonasson C, Dalen H, Boerwinkle E, Hoogeveen RC, Ballantyne C, Coresh J, Omland T, **Yu B**. Large scale plasma proteomics identifies novel proteins and protein networks associated with heart failure development. *Nat Commun*. 2024 Jan 15;15(1):528. PubMed PMID: 38225249.
19. Li Y, Wong KY, Howard AG, Gordon-Larsen P, Highland HM, Graff M, North KE, Downie CG, Avery CL, **Yu B**, Young KL, Buchanan VL, Kaplan R, Hou L, Joyce BT, Qi Q, Sofer T, Moon JY, Lin DY. Mendelian randomization with incomplete measurements on the exposure

- in the Hispanic Community Health Study/Study of Latinos. *HGG Adv.* 2024 Jan 11;5(1):100245. PubMed PMID: 37817410.
20. Schuermans A, Honigberg MC, Raffield LM, Yu B, Roberts MB, Kooperberg C, Desai P, Carson AP, Shah AM, Ballantyne CM, Bick AG, Natarajan P, Manson JE, Whitsel EA, Eaton CB, Reiner AP. Clonal Hematopoiesis and Incident Heart Failure With Preserved Ejection Fraction. *JAMA Netw Open.* 2024 Jan 2;7(1):e2353244. PubMed PMID: 38270950.
 21. Bey GS, Pike JR, Zannas AS, Xiao Q, **Yu B**, Shah AM, Palta P. The Relationship of Neighborhood Disadvantage, Biological Aging, and Psychosocial Risk and Resilience Factors in Heart Failure Incidence Among Black Persons: A Moderated Mediation Analysis. *J Gerontol B Psychol Sci Soc Sci.* 2024 Jan 1;79(1). PubMed PMID: 37591789.
 22. Nogal A, Alkis T, Lee Y, Kifer D, Hu J, Murphy RA, Huang Z, Wang-Sattler R, Kastenmüller G, Linkohr B, Barrios C, Crespo M, Gieger C, Peters A, Price J, Rexrode KM, **Yu B**, Menni C. Predictive metabolites for incident myocardial infarction: a two-step meta-analysis of individual patient data from six cohorts comprising 7897 individuals from the CONsortium of METabolomics Studies. *Cardiovasc Res.* 2023 Dec 30;119(17):2743-2754. PubMed PMID: 37706562.
 23. Lau ES, Roshandelpoor A, Zarbafian S, Wang D, Guseh JS, Allen N, Varadarajan V, Nayor M, Shah RV, Lima JAC, Shah SJ, **Yu B**, Alotaibi M, Cheng S, Jain M, Lewis GD, Ho JE. Eicosanoid and eicosanoid-related inflammatory mediators and exercise intolerance in heart failure with preserved ejection fraction. *Nat Commun.* 2023 Nov 20;14(1):7557. PubMed PMID: 37985769.
 24. Jia X, Buckley L, Sun C, Al Rifai M, **Yu B**, Nambi V, Virani SS, Selvin E, Matsushita K, Hoogeveen RC, Coresh J, Shah AM, Ballantyne CM. Association of interleukin-6 and interleukin-18 with cardiovascular disease in older adults: Atherosclerosis Risk in Communities study. *Eur J Prev Cardiol.* 2023 Nov 9;30(16):1731-1740. PubMed PMID: 37306504.
 25. Buckley LF, Agha AM, Dorbala P, Claggett BL, **Yu B**, Hussain A, Nambi V, Chen LY, Matsushita K, Hoogeveen RC, Ballantyne CM, Shah AM. MMP-2 Associates With Incident Heart Failure and Atrial Fibrillation: The ARIC Study. *Circ Heart Fail.* 2023 Nov;16(11):e010849. PubMed PMID: 37753653.
 26. Buckley LF, Dorbala P, Claggett BL, Libby P, Tang W, Coresh J, Ballantyne CM, Hoogeveen RC, **Yu B**, Shah AM. Circulating neutrophil-related proteins associate with incident heart failure and cardiac dysfunction: The ARIC study. *Eur J Heart Fail.* 2023 Nov;25(11):1923-1932. PubMed PMID: 37608611.
 27. Giro P, Cunningham JW, Rasmussen-Torvik L, Bielinski SJ, Larson NB, Colangelo LA, Jacobs DR Jr, Gross M, Reiner AP, Lloyd-Jones DM, Guo X, Taylor K, Vaduganathan M, Post WS, Bertoni A, Ballantyne C, Shah A, Claggett B, Boerwinkle E, **Yu B**, Solomon SD, Shah SJ, Patel RB. Missense Genetic Variation of ICAM1 and Incident Heart Failure. *J Card Fail.* 2023 Aug;29(8):1163-1172. PubMed PMID: 36882149.
 28. Selvaraj S, Claggett BL, Quarta CC, **Yu B**, Inciardi RM, Buxbaum JN, Mosley TH, Shah AM, Dorbala S, Falk RH, Solomon SD. Age Dependency of Cardiovascular Outcomes With the Amyloidogenic pV142I Transthyretin Variant Among Black Individuals in the US. *JAMA Cardiol.* 2023 Aug 1;8(8):784-788. PubMed PMID: 37212191.
 29. Feofanova EV, Brown MR, Alkis T, Manuel AM, Li X, Tahir UA, Li Z, Mendez KM, Kelly RS, Qi Q, Chen H, Larson MG, Lemaitre RN, Morrison AC, Grieser C, Wong KE, Gerszten RE, Zhao Z, Lasky-Su J, **Yu B**. Whole-Genome Sequencing Analysis of Human Metabolome

- in Multi-Ethnic Populations. *Nat Commun.* 2023 May 30;14(1):3111. PubMed PMID: 37253714.
30. Wong WJ, Emdin C, Bick AG, Zekavat SM, Niroula A, Pirruccello JP, Dichtel L, Griffin G, Uddin MM, Gibson CJ, Kovalcik V, Lin AE, McConkey ME, Vromman A, Sellar RS, Kim PG, Agrawal M, Weinstock J, Long MT, **Yu B**, Banerjee R, Nicholls RC, Dennis A, Kelly M, Loh PR, McCarroll S, Boerwinkle E, Vasani RS, Jaiswal S, Johnson AD, Chung RT, Corey K, Levy D, Ballantyne C, Ebert BL, Natarajan P. Clonal haematopoiesis and risk of chronic liver disease. *Nature.* 2023 Apr;616(7958):747-754. PubMed PMID: 37046084; PubMed Central PMCID: PMC10405350.
 31. Kurniansyah N, Wallace DA, Zhang Y, **Yu B**, Cade B, Wang H, Ochs-Balcom HM, Reiner AP, Ramos AR, Smith JD, Cai J, Daviglius M, Zee PC, Kaplan R, Kooperberg C, Rich SS, Rotter JI, Gharib SA, Redline S, Sofer T. An integrated multi-omics analysis of sleep-disordered breathing traits implicates P2XR4 purinergic signaling. *Commun Biol.* 2023 Jan 31;6(1):125. PubMed PMID: 36721044.
 32. Zhang Y, Ngo D, **Yu B**, Shah NA, Chen H, Ramos AR, Zee PC, Tracy R, Durda P, Kaplan R, Daviglius ML, Rich SS, Rotter JI, Cai J, Clish C, Gerszten R, Kristal BS, Gharib SA, Redline S, Sofer T. Development and validation of a metabolite index for obstructive sleep apnea across race/ethnicities. *Sci Rep.* 2022 Dec 16;12(1):21805. PubMed PMID: 36526671.
 33. Liu G, Moore K, Su WC, Delclos GL, Gimeno Ruiz de Porras D, **Yu B**, Tian H, Luo B, Lin S, Lewis GT, Craft E, Zhang K. Chemical explosion, COVID-19, and environmental justice: Insights from low-cost air quality sensors. *Sci Total Environ.* 2022 Aug 6;849:157881. PubMed PMID: 35944636.
 34. Kim W, Hecker J, Barr RG, Boerwinkle E, Cade B, Correa A, Dupuis J, Gharib SA, Lange L, London SJ, Morrison AC, O'Connor GT, Oelsner EC, Psaty BM, Vasani RS, Redline S, Rich SS, Rotter JI, **Yu B**, Lange C, Manichaikul A, Zhou JJ, Sofer T, Silverman EK, Qiao D, Cho MH. Assessing the contribution of rare genetic variants to phenotypes of chronic obstructive pulmonary disease using whole-genome sequence data. *Hum Mol Genet.* 2022 Nov 10;31(22):3873-3885. PubMed PMID: 35766891
 35. Zhou L, Surapaneni A, Rhee EP, **Yu B**, Boerwinkle E, Coresh J, Grams ME, Schlosser P. Integrated proteomic and metabolomic modules identified as biomarkers of mortality in the Atherosclerosis Risk in Communities study and the African American Study of Kidney Disease and Hypertension. *Hum Genomics.* 2022 Nov 3;16(1):53. PubMed PMID: 36329547.
 36. Panyard DJ, **Yu B**, Snyder MP. The metabolomics of human aging: Advances, challenges, and opportunities. *Sci Adv.* 2022 Oct 21;8(42):eadd6155. PubMed PMID: 36260671.
 37. Uddin MDM, Nguyen NQH, **Yu B**, Brody JA, Pampana A, Nakao T, Fornage M, Bressler J, Sotoodehnia N, Weinstock JS, Honigberg MC, Nachun D, Bhattacharya R, Griffin GK, Chander V, Gibbs RA, Rotter JI, Liu C, Baccarelli AA, Chasman DI, Whitsel EA, Kiel DP, Murabito JM, Boerwinkle E, Ebert BL, Jaiswal S, Floyd JS, Bick AG, Ballantyne CM, Psaty BM, Natarajan P, Conneely KN. Clonal hematopoiesis of indeterminate potential, DNA methylation, and risk for coronary artery disease. *Nat Commun.* 2022 Sep 12;13(1):5350. PubMed PMID: 36097025
 38. Louca P, Nogal A, Moskal A, Goulding NJ, [...], **Yu B**, Gunter MJ, Suhre K, Lawlor DA, Mangino M, Menni C. Cross-Sectional Blood Metabolite Markers of Hypertension: A Multicohort Analysis of 44,306 Individuals from the Consortium of METabolomics Studies. *Metabolites.* 2022 Jun 28;12(7). PubMed PMID: 35888725.

39. Qi Q*, Li J*, **Yu B***, Moon JY, [...], Knight R, Burk RD, Boerwinkle E, Kaplan RC. Host and gut microbial tryptophan metabolism and type 2 diabetes: an integrative analysis of host genetics, diet, gut microbiome and circulating metabolites in cohort studies. *Gut*. 2022 Jun;71(6):1095-1105. PubMed PMID: 34127525 (* contributed equally).
40. Hu X, Qiao D, Kim W, Moll M, [...], **Yu B**, [...], Wheeler HE, Cho MH, Im HK, Manichaikul A. Polygenic transcriptome risk scores for COPD and lung function improve cross-ethnic portability of prediction in the NHLBI TOPMed program. *Am J Hum Genet*. 2022 May 5;109(5):857-870. PubMed PMID: 35385699.
41. Zhang J, Dutta D, Köttgen A, Tin A, Schlosser P, Grams ME, Harvey B, **Yu B**, Boerwinkle E, Coresh J, Chatterjee N. Plasma proteome analyses in individuals of European and African ancestry identify cis-pQTLs and models for proteome-wide association studies. *Nat Genet*. 2022 May;54(5):593-602. PubMed PMID: 35501419.
42. Banerjee P, Olmsted-Davis EA, Deswal A, Nguyen MT, Koutroumpakis E, Palaskas NL, Lin SH, Kotla S, Reyes-Gibby C, Yeung SJ, Yusuf SW, Yoshimoto M, Kobayashi M, **Yu B**, Schadler K, Herrmann J, Cooke JP, Jain A, Chini E, Le NT, Abe JI. Cancer treatment-induced NAD⁺ depletion in premature senescence and late cardiovascular complications. *J Cardiovasc Aging*. 2022;2. PubMed PMID: 35801078.
43. Lee Y, Chen H, Chen W, Qi Q, Afshar M, Cai J, Daviglus ML, Thyagarajan B, North KE, London SJ, Boerwinkle E, Celedón JC, Kaplan RC, **Yu B**. Metabolomic Associations of Asthma in the Hispanic Community Health Study/Study of Latinos. *Metabolites*. 2022 Apr 16;12(4). PubMed PMID: 35448546.
44. Bhattacharya R, Zekavat SM, Haessler J, Fornage M, Raffield L, Uddin MM, Bick AG, Niroula A, **Yu B**, Gibson C, Griffin G, Morrison AC, Psaty BM, Longstreth WT, Bis JC, Rich SS, Rotter JI, Tracy RP, Correa A, Seshadri S, Johnson A, Collins JM, Hayden KM, Madsen TE, Ballantyne CM, Jaiswal S, Ebert BL, Kooperberg C, Manson JE, Whitsel EA, Natarajan P, Reiner AP. Clonal Hematopoiesis Is Associated With Higher Risk of Stroke. *Stroke*. 2022 Mar;53(3):788-797. PubMed PMID: 34743536; PubMed Central PMCID: PMC8885769.
45. Frenzel S, Bis JC, Gudmundsson EF, O'Donnell A, [...], **Yu B**, [...], Psaty BM, Wolters FJ, Grabe HJ, Seshadri S. Associations of Pulmonary Function with MRI Brain Volumes: A Coordinated Multi-Study Analysis. *J Alzheimers Dis*. 2022;90(3):1073-1083. PubMed PMID: 36213999; PubMed Central PMCID: PMC9712227.
46. Lumbers RT, Shah S, Lin H, Czuba T, [...], **Yu B**, [...], Cappola TP, Ellinor PT, Vasan RS, Smith JG. The genomics of heart failure: design and rationale of the HERMES consortium. *ESC Heart Fail*. 2021 Dec;8(6):5531-5541. PubMed PMID: 34480422.
47. Yang Y, Bartz TM, Brown MR, Guo X, [...], Boerwinkle E, Fornage M, Jun G, **Yu B**. Identification of Functional Genetic Determinants of Cardiac Troponin T and I in a Multiethnic Population and Causal Associations With Atrial Fibrillation. *Circ Genom Precis Med*. 2021 Dec;14(6):e003460. PubMed PMID: 34732054.
48. Luo S, Feofanova EV, Tin A, Tung S, Rhee EP, Coresh J, Arking DE, Surapaneni A, Schlosser P, Li Y, Köttgen A, **Yu B**, Grams ME. Genome-wide association study of serum metabolites in the African American Study of Kidney Disease and Hypertension. *Kidney Int*. 2021 Aug;100(2):430-439. PubMed PMID: 33838163.
49. **Yu B**, Roberts MB, Raffield LM, Zekavat SM, Nguyen NQH, Biggs ML, Brown MR, Griffin G, Desai P, Correa A, Morrison AC, Shah AM, Niroula A, Uddin MM, Honigberg MC, Ebert BL, Psaty BM, Whitsel EA, Manson JE, Kooperberg C, Bick AG, Ballantyne CM, Reiner AP, Natarajan P, Eaton CB; National Heart, Lung, and Blood Institute TOPMed Consortium.

- Supplemental Association of Clonal Hematopoiesis With Incident Heart Failure. *J Am Coll Cardiol*. 2021 Jul 6;78(1):42-52. PubMed PMID: 34210413.
50. Mei Z, Chen GC, Wang Z, Usyk M, **Yu B**, Baeza YV, Humphrey G, Benitez RS, Li J, Williams-Nguyen JS, Daviglus ML, Hou L, Cai J, Zheng Y, Knight R, Burk RD, Boerwinkle E, Kaplan RC, Qi Q. Dietary factors, gut microbiota, and serum trimethylamine-N-oxide associated with cardiovascular disease in the Hispanic Community Health Study/Study of Latinos. *Am J Clin Nutr*. 2021 Jun 1;113(6):1503-1514. PubMed PMID: 33709132.
 51. Hussain A, Tang O, Sun C, Jia X, Selvin E, Nambi V, Folsom A, Heiss G, Zannad F, Mosley T, Virani SS, Coresh J, Boerwinkle E, **Yu B**, Cunningham JW, Shah AM, Solomon SD, de Lemos JA, Hoogeveen RC, Ballantyne CM. Soluble Angiotensin-Converting Enzyme 2, Cardiac Biomarkers, Structure, and Function, and Cardiovascular Events (from the Atherosclerosis Risk in Communities Study). *Am J Cardiol*. 2021 May 1;146:15-21. PubMed PMID: 33539861.
 52. Xu J, Liu G, Hegde SM, Palta P, Boerwinkle E, Gabriel KP, **Yu B**. Physical Activity-Related Metabolites Are Associated with Mortality: Findings from the Atherosclerosis Risk in Communities (ARIC) Study. *Metabolites*. 2021 Jan 19;11(1). PubMed PMID: 33477977.
 53. Kim H, Hu EA, E Wong K, **Yu B**, Steffen LM, Seidemann SB, Boerwinkle E, Coresh J, Rebholz CM. Serum Metabolites Associated with Healthy Diets in African Americans and European Americans. *J Nutr*. 2021 Jan 4;151(1):40-49. PubMed PMID: 33244610.
 54. Luo S, Surapaneni A, Zheng Z, Rhee EP, Coresh J, Hung AM, Nadkarni GN, **Yu B**, Boerwinkle E, Tin A, Arking DE, Steinbrenner I, Schlosser P, Köttgen A, Grams ME. NAT8 Variants, N-Acetylated Amino Acids, and Progression of CKD. *Clin J Am Soc Nephrol*. 2020 Dec 31;16(1):37-47. PubMed PMID: 33380473.
 55. Jia X, Sun C, Tang O, Gorlov I, Nambi V, Virani SS, Villareal DT, Taffet GE, **Yu B**, Bressler J, Boerwinkle E, Windham BG, de Lemos JA, Matsushita K, Selvin E, Michos ED, Hoogeveen RC, Ballantyne CM. Plasma dehydroepiandrosterone sulfate and cardiovascular disease risk in older men and women. *J Clin Endocrinol Metab*. 2020 Dec 1;105(12):e4304-e4327. PubMed PMID: 32785663.
 56. Surendran P, Feofanova EV, Lahrouchi N, Ntalla I, [..], **Yu B**, [...], Levy D, Newton-Cheh C, Munroe PB, Howson JMM. Discovery of rare variants associated with blood pressure regulation through meta-analysis of 1.3 million individuals. *Nat Genet*. 2020 Dec;52(12):1314-1332. PubMed PMID: 33230300.
 57. Feofanova EV, Chen H, Dai Y, Jia P, Grove ML, Morrison AC, Qi Q, Daviglus M, Cai J, North KE, Laurie CC, Kaplan RC, Boerwinkle E, **Yu B**. A Genome-wide Association Study Discovers 46 Loci of the Human Metabolome in the Hispanic Community Health Study/Study of Latinos. *Am J Hum Genet*. 2020 Nov 5;107(5):849-863. PubMed PMID: 33031748.
 58. Menni C, Zhu J, Le Roy CI, Mompeo O, Young K, Rebholz CM, Selvin E, North KE, Mohney RP, Bell JT, Boerwinkle E, Spector TD, Mangino M, **Yu B**, Valdes AM. Serum metabolites reflecting gut microbiome alpha diversity predict type 2 diabetes. *Gut Microbes*. 2020 Nov 1;11(6):1632-1642. PubMed PMID: 32576065.
 59. Zhao X, Qiao D, Yang C, Kasela S, [...], **Yu B**, [...], Silverman EK, Barr RG, Cho MH, Manichaikul A. Whole genome sequence analysis of pulmonary function and COPD in 19,996 multi-ethnic participants. *Nat Commun*. 2020 Oct 14;11(1):5182. PubMed PMID: 33057025.
 60. Murthy VL*, **Yu B***, Wang W, Zhang X, Alkis T, Pico AR, Yeri A, Bhupathiraju SN, Bressler J, Ballantyne CM, Freedman JE, Ordovas J, Boerwinkle E, Tucker KL, Shah R. Molecular

- Signature of Multisystem Cardiometabolic Stress and Its Association With Prognosis. *JAMA Cardiol.* 2020 Oct 1;5(10):1144-1153. PubMed PMID: 32717046. (* contributed equally)
61. Chen GC, Chai JC, **Yu B**, Michelotti GA, Grove ML, Fretts AM, Daviglus ML, Garcia-Bedoya OL, Thyagarajan B, Schneiderman N, Cai J, Kaplan RC, Boerwinkle E, Qi Q. Serum sphingolipids and incident diabetes in a US population with high diabetes burden: the Hispanic Community Health Study/Study of Latinos (HCHS/SOL). *Am J Clin Nutr.* 2020;112(1):57-65.
 62. Sekula P, Tin A, Schultheiss UT, Baid-Agrawal S, Mohney RP, Steinbrenner I, **Yu B**, Luo S, Boerwinkle E, Eckardt KU, Coresh J, Grams ME, Köttgen A. Urine 6-Bromotryptophan: Associations with Genetic Variants and Incident End-Stage Kidney Disease. *Sci Rep.* 2020;10(1):10018.
 63. Li C, Mou C, Swartz MD, **Yu B**, Bai Y, Tu Y, Liu X. dbMTS: A comprehensive database of putative human microRNA target site SNVs and their functional predictions. *Hum Mutat.* 2020; 41(6):1123-1130.
 64. de Las Fuentes L, Sung YJ, Noordam R, Winkler T, [...], **Yu B**, [...], Munroe PB, Franks PW, Rao DC, Fornage M. Gene-educational attainment interactions in a multi-ancestry genome-wide meta-analysis identify novel blood pressure loci. *Mol Psychiatry.* 2020 [Epub ahead of print] PubMed PMID: 32372009.
 65. Shah S, Henry A, Roselli C, Lin H, Sveinbjörnsson G, [...], **Yu B**, [...], Stefansson K, Smith JG, Vasani RS, Swerdlow DI, Lumbers RT. Genome-wide association and Mendelian randomisation analysis provide insights into the pathogenesis of heart failure. *Nat Commun.* 2020; 11(1):163.
 66. Gigliotti JC, Tin A, Pourafshar S, Cechova S, Wang YT, Sung SJ, Bodonyi-Kovacs G, Cross JV, Yang G, Nguyen N, Chan F, Rebholz C, **Yu B**, Grove ML, Grams ME, Köttgen A, Scharpf R, Ruiz P, Boerwinkle E, Coresh J, Le TH. *GSTM1* Deletion Exaggerates Kidney Injury in Experimental Mouse Models and Confers the Protective Effect of Cruciferous Vegetables in Mice and Humans. *J Am Soc Nephrol.* 2020; 31(1):102-116.
 67. Yee SW, Stecula A, Chien HC, Zou L, Feofanova EV, van Borselen M, Cheung KWK, Yousri NA, Suhre K, Kinchen JM, Boerwinkle E, Irannejad R, **Yu B**, Giacomini KM. Unraveling the functional role of the orphan solute carrier, *SLC22A24* in the transport of steroid conjugates through metabolomic and genome-wide association studies. *PLoS Genet.* 2019; 15(9):e1008208.
 68. Evangelou E, Gao H, Chu C, Ntritsos G, Blakeley P, Butts, [...], **Yu B**, [...], Matthews PM, Rothenfluh A, Desrivieres S, Schumann G, Elliott P. New alcohol-related genes suggest shared genetic mechanisms with neuropsychiatric disorders. *Nat Hum Behav.* 2019; 3(9):950-961.
 69. Tin A*, **Yu B***, Ma J, Masushita K, Daya N, Hoogeveen RC, Ballantyne CM, Couper D, Rebholz CM, Grams ME, Alonso A, Mosley T, Heiss G, Ganz P, Selvin E, Boerwinkle E, Coresh J. Reproducibility and Variability of Protein Analytes Measured Using a Multiplexed Modified Aptamer Assay. *J Appl Lab Med.* 2019; 4(1):30-39. (*contributed equally)
 70. Wang Z, Zhu C, Nambi V, Morrison AC, Folsom AR, Ballantyne CM, Boerwinkle E, **Yu B**. Metabolomic Pattern Predicts Incident Coronary Heart Disease. *Arterioscler Thromb Vasc Biol.* 2019, 39(7):1475-1482.
 71. Alonso A, **Yu B**, Sun YV, Chen LY, Arking DE, Loehr LR, O'Neal WT, Soliman EZ, Boerwinkle E. Serum metabolomics and incidence of atrial fibrillation: the Atherosclerosis Risk in Communities (ARIC) Study. *Am J Cardiol.* 2019; 123(12):1955-1961.

72. de Vries PS, Brown MR, Bentley AR, Sung YJ, Winkler TW, [...], **Yu B**, [...], Rice K, Chasman DI, Cupples LA, Rao DC, Morrison AC. Multiancestry Genome-Wide Association Study of Lipid Levels Incorporating Gene-Alcohol Interactions. *Am J Epidemiol*. 2019; 188(6):1033-1054.
73. **Yu B**, Zanetti KA, Temprosa M, Albanes D, Appel N, Barrera CB, [...], Verma M, Wang Y, Wareham NJ, Wong A, Younes N, Zhao H, Zheng W, Moore SC. The Consortium of Metabolomics Studies (COMETS): Metabolomics in 47 prospective cohort studies. *Am J Epidemiol*. 2019; 188: 991-1012.
74. Hua S, Scott JM, Hanna DB, Haberlen SA, Shah SJ, Hodis HN, Landay AL, Lazar JM, Kizer JR, **Yu B**, Post WS, Anastos K, Kaplan RC, Clish CB, Qi Q. Plasma acylcarnitines and progression of carotid artery atherosclerosis in HIV infection. *AIDS*. 2019; 33(6):1043-1052.
75. Zhao W, Wang X, Deik AA, Hanna DB, Wang T, Haberlen SA, Shah SJ, Lazar JM, Hodis HN, Landay AL, **Yu B**, Gustafson D, Anastos K, Post WS, Clish CB, Kaplan RC, Qi Q. Elevated Plasma Ceramides Are Associated With Antiretroviral Therapy Use and Progression of Carotid Artery Atherosclerosis in HIV Infection. *Circulation*. 2019; 139(17):2003-2011.
76. Sun D, Tiedt S, **Yu B**, Jian X, Gottesman RF, Mosley TH, Boerwinkle E, Dichgans M, Fornage M. A prospective study of serum metabolites and risk of ischemic stroke. *Neurology*. 2019 Apr 16; 92(16):e1890-e1898.
77. **Yu B***, Flexeder C*, McGarrah RW, Wyss A, Morrison AC, North, KE, Boerwinkle E, Kastenmüller G, Gieger C, Suhre K, Karrasch S, Peters A, Schulz H, London SJ. Metabolomics identifies novel biomarkers for pulmonary function and COPD in general populations. *Metabolites*. 2019; 9 (*contributed equally)
78. Bryant TS, Duggal P, **Yu B**, Morrison AC, Shafi T, Ehret G, Franceschini N, Boerwinkle E, Coresh J, Tin A. Association of FMO3 Variants with Blood Pressure in the Atherosclerosis Risk in Communities Study. *Int J Hypertens*. 2019:2137629.
79. Hidalgo BA, Sofer T, Qi Q, Schneiderman N, Chen YI, Kaplan RC, Avilés-Santa ML, North KE, Arnett DK, Szpiro A, Cai J, **Yu B**, Boerwinkle E, Papanicolaou G, Laurie CC, Rotter JJ, Stilp AM. Associations between *SLC16A11* variants and diabetes in the Hispanic Community Health Study/Study of Latinos (HCHS/SOL). *Sci Rep*. 2019; 9(1):843.
80. Selvaraj S, Seidelmann S, Silvestre OM, Claggett B, Ndumele CE, Cheng S, **Yu B**, Fernandes-Silva MM, Grove ML, Boerwinkle E, Shah AM, Solomon SD. *HFE* H63D Polymorphism and the Risk for Systemic Hypertension, Myocardial Remodeling, and Adverse Cardiovascular Events in the ARIC Study. *Hypertension*. 2019, 73(1):68-74.
81. Tin A, Li Y, Brody JA, Nutile T, Chu AY, Huffman JE, Yang Q, Chen MH, Robinson-Cohen C, Macé A, Liu J, Demirkan A, Sorice R, Sedaghat S, Swen M, **Yu B**, Ghasemi S, Teumer A, Vollenweider P, Ciullo M, Li M, Uitterlinden AG, Kraaij R, Amin N, van Rooij J, Kutalik Z, Dehghan A, McKnight B, van Duijn CM, Morrison A, Psaty BM, Boerwinkle E, Fox CS, Woodward OM, Köttgen A. Large-scale whole-exome sequencing association studies identify rare functional variants influencing serum urate levels. *Nat Commun*. 2018; 9(1):4228.
82. Seidelmann SB, Feofanova E, **Yu B**, Franceschini N, Claggett B, Kuokkanen M, Puolijoki H, Ebeling T, Perola M, Salomaa V, Shah A, Coresh J, Selvin E, MacRae CA, Cheng S, Boerwinkle E, Solomon SD. Genetic Variants in SGLT1, Glucose Tolerance, and Cardiometabolic Risk. *J Am Coll Cardiol*. 2018; 72(15):1763-1773.
83. Saeed A, Feofanova EV, **Yu B**, Sun W, Virani SS, Nambi V, Coresh J, Guild CS, Boerwinkle E, Ballantyne CM, Hoogeveen RC. Remnant-Like Particle Cholesterol, Low-Density

- Lipoprotein Triglycerides, and Incident Cardiovascular Disease. *J Am Coll Cardiol*. 2018; 10; 72(2):156-169.
84. Feofanova EV, **Yu B**, Metcalf GA, Liu X, Muzny D, Below JE, Wagenknecht LE, Gibbs RA, Morrison AC, Boerwinkle E. Sequence-Based Analysis of Lipid-Related Metabolites in a Multiethnic Study. *Genetics*. 2018; 209(2):607-616.
 85. Guo Y, Moon JY, Laurie CC, North KE, Sanchez-Johnsen LA, Davis S, **Yu B**, Nyenhuis SM, Kaplan R, Rastogi D, Qi Q. Genetic Predisposition to Obesity is associated with Asthma in US Hispanics/Latinos: Results from the Hispanic Community Health Study/Study of Latinos. *Allergy*. 2018; 73(7):1547-1550.
 86. Rebholz CM, **Yu B**, Zheng Z, Chang P, Tin A, Köttgen A, Wagenknecht LE, Coresh J, Boerwinkle E, Selvin E. Serum metabolomic profile of incident diabetes. *Diabetologia*. 2018; 61(5):1046-1054.
 87. Li C, Grove ML, **Yu B**, Jones BC, Morrison A, Boerwinkle E, Liu X. Genetic variants in microRNA genes and targets associated with cardiovascular disease risk factors in the African-American population. *Hum Genet*. 2018; 137(1):85-94.
 88. de Vries PS, **Yu B**, Feofanova EV, Metcalf GA, Brown MR, Zeighami AL, Liu X, Muzny DM, Gibbs RA, Boerwinkle E, Morrison AC. Whole-genome sequencing study of serum peptide levels: the Atherosclerosis Risk in Communities study. *Human molecular genetics*. 2017; 26(17):3442-3450.
 89. Tin A, Scharpf R, Estrella MM, **Yu B**, Grove ML, Chang PP, Matsushita K, Köttgen A, Arking DE, Boerwinkle E, Le TH, Coresh J, Grams ME. The Loss of *GSTM1* Associates with Kidney Failure and Heart Failure. *J Am Soc Nephrol*. 2017; 28(11):3345-3352.
 90. Bressler J, **Yu B**, Mosley TH, Knopman DS, Gottesman RF, Alonso A, Sharrett AR, Wruck LM, Boerwinkle E. Metabolomics and cognition in African American adults in midlife: the atherosclerosis risk in communities study. *Translational psychiatry*. 2017; 7(7):e1173.
 91. Stitzel NO, Khera AV, Wang X, Bierhals AJ, Vourakis AC, [...], **Yu B**, [...], Lander ES, Gabriel S, Saleheen D, Musunuru K, Kathiresan S. ANGPTL3 Deficiency and Protection Against Coronary Artery Disease. *Journal of the American College of Cardiology*. 2017; 69(16):2054-2063.
 92. Seidemann SB, Vardeny O, Claggett B, **Yu B**, Shah AM, Ballantyne CM, Selvin E, MacRae CA, Boerwinkle E, Solomon SD. An *NPPB* Promoter Polymorphism Associated With Elevated N-Terminal pro-B-Type Natriuretic Peptide and Lower Blood Pressure, Hypertension, and Mortality. *Journal of the American Heart Association*. 2017; 6(4).
 93. Morrison AC, Huang Z, **Yu B**, Metcalf G, Liu X, Ballantyne C, Coresh J, Yu F, Muzny D, Feofanova E, Rustagi N, Gibbs R, Boerwinkle E. Practical Approaches for Whole-Genome Sequence Analysis of Heart- and Blood-Related Traits. *American journal of human genetics*. 2017; 100(2):205-215.
 94. Schumann G, Liu C, O'Reilly P, Gao H, Song P, [...], **Yu B**, [...], Kliewer SA, Mangelsdorf DJ, Müller CP, Levy D, Elliott P. KLB is associated with alcohol drinking, and its gene product β -Klotho is necessary for FGF21 regulation of alcohol preference. *Proceedings of the National Academy of Sciences of the United States of America*. 2016; 113(50):14372-14377.
 95. **Yu B***, de Vries PS*, Metcalf GA, Wang Z, Feofanova EV, Liu X, Muzny DM, Wagenknecht LE, Gibbs RA, Morrison AC, Boerwinkle E. Whole genome sequence analysis of serum amino acid levels. *Genome biology*. 2016; 17(1):237. (*contributed equally)

96. **Yu B**, Li AH, Metcalf GA, Muzny DM, Morrison AC, White S, Mosley TH, Gibbs RA, Boerwinkle E. Loss-of-function variants influence the human serum metabolome. *Science advances*. 2016; 2(8):e1600800.
97. Rhee EP, Yang Q, **Yu B**, Liu X, Cheng S, Deik A, Pierce KA, Bullock K, Ho JE, Levy D, Florez JC, Kathiresan S, Larson MG, Vasani RS, Clish CB, Wang TJ, Boerwinkle E, O'Donnell CJ, Gerszten RE. An exome array study of the plasma metabolome. *Nat Commun*. 2016; 7:12360.
98. **Yu B**, Heiss G, Alexander D, Grams ME, Boerwinkle E. Associations Between the Serum Metabolome and All-Cause Mortality Among African Americans in the Atherosclerosis Risk in Communities (ARIC) Study. *Am J Epidemiol*. 2016; 183(7):650-6.
99. **Yu B**, Pulit SL, Hwang SJ, Brody JA, Amin N, Auer PL, Bis JC, Boerwinkle E, Burke GL, Chakravarti A, Correa A, Dreisbach AW, Franco OH, Ehret GB, Franceschini N, Hofman A, Lin DY, Metcalf GA, Musani SK, Muzny D, Palmas W, Raffel L, Reiner A, Rice K, Rotter JJ, Veeraraghavan N, Fox E, Guo X, North KE, Gibbs RA, van Duijn CM, Psaty BM, Levy D, Newton-Cheh C, Morrison AC. Rare Exome Sequence Variants in *CLCN6* Reduce Blood Pressure Levels and Hypertension Risk. *Circ Cardiovasc Genet*. 2016; 9(1):64-70.
100. Li AH, Morrison AC, Kovar C, Cupples LA, Brody JA, Polfus LM, **Yu B**, Metcalf G, Muzny D, Veeraraghavan N, Liu X, Lumley T, Mosley TH, Gibbs RA, Boerwinkle E. Analysis of loss-of-function variants and 20 risk factor phenotypes in 8,554 individuals identifies loci influencing chronic disease. *Nat Genet*. 2015; 47(6):640-2.
101. **Yu B**, Li AH, Muzny D, Veeraraghavan N, de Vries PS, Bis JC, Musani SK, Alexander D, Morrison AC, Franco OH, Uitterlinden A, Hofman A, Dehghan A, Wilson JG, Psaty BM, Gibbs R, Wei P, Boerwinkle E. Association of Rare Loss-Of-Function Alleles in *HAL*, Serum Histidine: Levels and Incident Coronary Heart Disease. *Circ Cardiovasc Genet*. 2015; 8(2):351-5.
102. Alonso A, **Yu B**, Qureshi WT, Grams ME, Selvin E, Soliman EZ, Loehr LR, Chen LY, Agarwal SK, Alexander D, Boerwinkle E. Metabolomics and Incidence of Atrial Fibrillation in African Americans: The Atherosclerosis Risk in Communities (ARIC) Study. *PloS one*. 2015; 10(11):e0142610.
103. **Yu B**, Zheng Y, Nettleton JA, Alexander D, Coresh J, Boerwinkle E. Serum metabolomic profiling and incident CKD among African Americans. *Clinical journal of the American Society of Nephrology*. 2014; 9(8):1410-7.
104. Zheng Y, **Yu B**, Alexander D, Steffen LM, Boerwinkle E. Human metabolome associates with dietary intake habits among African Americans in the atherosclerosis risk in communities study. *American journal of epidemiology*. 2014; 179(12):1424-33.
105. Zheng Y, **Yu B**, Alexander D, Couper DJ, Boerwinkle E. Medium-term variability of the human serum metabolome in the Atherosclerosis Risk in Communities (ARIC) study. *Omics: a journal of integrative biology*. 2014; 18(6):364-73.
106. Zheng Y, **Yu B**, Alexander D, Steffen LM, Nettleton JA, Boerwinkle E. Metabolomic patterns and alcohol consumption in African Americans in the Atherosclerosis Risk in Communities Study. *The American journal of clinical nutrition*. 2014; 99(6):1470-8.
107. **Yu B**, Zheng Y, Alexander D, Morrison AC, Coresh J, Boerwinkle E. Genetic determinants influencing human serum metabolome among African Americans. *PLoS genetics*. 2014; 10(3):e1004212.
108. **Yu B**, Zheng Y, Alexander D, Manolio TA, Alonso A, Nettleton JA, Boerwinkle E. Genome-wide association study of a heart failure related metabolomic profile among African

- Americans in the Atherosclerosis Risk in Communities (ARIC) study. *Genetic epidemiology*. 2013; 37(8):840-5.
109. Zheng Y, **Yu B**, Alexander D, Manolio TA, Aguilar D, Coresh J, Heiss G, Boerwinkle E, Nettleton JA. Associations between metabolomic compounds and incident heart failure among African Americans: the ARIC Study. *American journal of epidemiology*. 2013; 178(4):534-42.
 110. Zheng Y, **Yu B**, Alexander D, Mosley TH, Heiss G, Nettleton JA, Boerwinkle E. Metabolomics and incident hypertension among blacks: the atherosclerosis risk in communities study. *Hypertension*. 2013; 62(2):398-403.
 111. **Yu B**, Barbalic M, Brautbar A, Nambi V, Hoogeveen RC, Tang W, Mosley TH, Rotter JI, deFilippi CR, O'Donnell CJ, Kathiresan S, Rice K, Heckbert SR, Ballantyne CM, Psaty BM, Boerwinkle E. Association of genome-wide variation with highly sensitive cardiac troponin-T levels in European Americans and Blacks: a meta-analysis from atherosclerosis risk in communities and cardiovascular health studies. *Circ Cardiovasc Genet*. 2013; 6(1):82-8.
 112. Fox ER, Musani SK, Barbalic M, Lin H, **Yu B**, Ogunyankin KO, Smith NL, Kutlar A, Glazer NL, Post WS, Paltoo DN, Dries DL, Farlow DN, Duarte CW, Kardia SL, Meyers KJ, Sun YV, Arnett DK, Patki AA, Sha J, Cui X, Samdarshi TE, Penman AD, Bibbins-Domingo K, Bužková P, Benjamin EJ, Bluemke DA, Morrison AC, Heiss G, Carr JJ, Tracy RP, Mosley TH, Taylor HA, Psaty BM, Heckbert SR, Cappola TP, Vasani RS. Genome-wide association study of cardiac structure and systolic function in African Americans: the Candidate Gene Association Resource (CARE) study. *Circulation. Cardiovascular genetics*. 2013; 6(1):37-46.
 113. Grove ML, **Yu B**, Cochran BJ, Haritunians T, Bis JC, Taylor KD, Hansen M, Borecki IB, Cupples LA, Fornage M, Gudnason V, Harris TB, Kathiresan S, Kraaij R, Launer LJ, Levy D, Liu Y, Mosley T, Peloso GM, Psaty BM, Rich SS, Rivadeneira F, Siscovick DS, Smith AV, Uitterlinden A, van Duijn CM, Wilson JG, O'Donnell CJ, Rotter JI, Boerwinkle E. Best practices and joint calling of the HumanExome BeadChip: the CHARGE Consortium. *PLoS one*. 2013; 8(7):e68095.
 114. **Yu B**, Zhao NQ, Lynn H. Comparison of statistical methods for estimating regression coefficients in models for analysis of two-stage clustered randomized data. *Journal of Fudan University (Medical Sciences)*, 2008, 35: (1) 75-79
 115. Wu JH, **Yu B**. The Epidemiological Research Progress of Impaired Glucose Tolerance. *Chinese Journal of Prevention & Control in Chronic Disease*, 2007, 15: (1) 76-77
 116. **Yu B**, Lu HM, Wang Y. A time-series study on the association of daily mortality and air pollution in Luwan district, Shanghai. *Shanghai Journal of Preventive Medicine*. 2006, 18: (6) 264-266
 117. Cheng YH, Wu JH, Lu HM, Li YF, Mei F, Xu JY, **Yu B**, Shen B, Wang Y. An investigation of bone mineral density and the prevalence of osteoporosis after three year intervention in Shanghai. *Chinese Journal of Osteoporosis*. 2004, 10: (3)
 118. Liu HY, Xu HH, Wu JH, Sheng DY, Liu H, **Yu B**, Yao ZP, Lu HM. A survey of the nutritional status of the diet of the elderly from the apartment for the elderly in Luwan district Shanghai. *Shanghai Journal of Preventive Medicine*. 2003, 15: (11)

Non-peer Reviewed Book Chapter:

119. Wang Z, Yu B. Biomarkers in Cardiovascular Disease (Chapter 16: Metabolomics, proteomics and genomics: an introduction to a clinician. Biomarkers in Cardiovascular Disease). Elsevier. 2018. (ISBN: 9780323548359)

Active Grant Awards (with role as PI or MPI):

R01HL160793 (Yu/Ramachandran) 08/2022 – 06/2026

Genetic Architecture of Cardiac Structure and Function and Its Implication in Heart Failure

The goal of this project is to identify specific genomic variants, captured by whole genome sequencing, associated with cardiac structure and function, as well as heart failure.

Role: MPI (contact)

R01HL163857 (Abe/Cooke/Le/Yu) 09/2022 – 08/2026

Premature aging disorders, metabolites, and atherosclerosis

The major goal of this project is to investigate the mechanisms underlying vascular dysfunction and early atherosclerosis in the premature aging.

Role: MPI

R01HL168683 (Yu) 04/2023 – 03/2027

Molecular Determinants of Atherosclerotic Cardiovascular Disease in Multi-ethnic Populations

The major goal of this project is to identify circulating metabolite and its longitudinal change, along with the genetic determinants, contributing to atherosclerosis and ASCVD.

Role: PI

R01HL160793-S1(Yu/Ramachandran) 09/2023 – 06/2027 (NCE)

Development of a cloud-based analytical tool for polygenic risk score and its implication in heart failure research

The major goal of this project is to develop a cloud-base tool for polygenic risk score construction and implement it in heart failure research.

Role: MPI (contact)

R01HL173837 (Yu) 05/2025 – 03/2029

Proteomic profiling of heart failure in Hispanics/Latinos

The main goal of this project is to identify proteins that are causally associated with cardiac structure and function, as well as the risk of heart failure in the Hispanics/Latinos

Role: PI

R01HL178090 (Shah/Yu) 09/2025 – 06/2029

Circulating metabolites underlying cardiometabolic risk for cardiac dysfunction and heart failure in diverse populations

The main goal of this project is to determine the association of circulating metabolites with progressive impairment in cardiac structure and function.

Role: MPI

Completed Grant Awards (with role as PI):

R01HL148218 (Shah/Yu)

07/2020 - 06/2025

Proteomic Signatures to Identify Pathways Underlying the Progression to Heart Failure

The goal of this application is to define the contributions of inflammatory pathways and identify novel causal pathways for the development of cardiac dysfunction and heart failure in the elderly.

Role: MPI

R01HL141824 (Yu)

04/2018 - 03/2025

Metabolic Signatures Underlying Cardiac Function for Heart Failure in Multi-Ethnic Populations

The goal of this project is to use multi-omics technologies to identify novel genetic determinants and metabolic signatures associated with cardiac dysfunction and heart failure risk.

Role: PI

R01HL142003

05/2018 - 04/2022

Trans-omics Analysis to Unravel Molecular Underpinnings of Heart, Lung and Blood Disease Risk Factors

The goal of this application is to identify genetic variants that influence circulating metabolites (metabQTL) in multi-ethnic populations and utilize metabQTL findings to identify molecular pathways that regulate heart, lung and blood disease risk factors.

Role: PI

AHA17SDG33661228

07/2017 – 06/2020

The Application of Genomics and Metabolomics on Coronary Heart Disease Risk Prediction

The objective of the proposed research is to integrate multi-omics data to better understand the role of the metabolome in relation to coronary heart disease.

Role: PI

UTHealth Houston SPH PRIME Award

09/2016 - 08/2017

Genetic and Metabolomic Determinants of HDL Influence Coronary Heart Disease Risk

The goal of this project is to support Dr. Yu to conduct pilot study on genetics, metabolomics and lipids.

Role: PI

INVITED TALKS:

1. Uncovering Sex Differences in the Metabolomic Landscape of Cardiovascular Disease. Tulane Center for Sex-based Biology and Medicine (TCESBM). Aug 2025
2. Metabolomics Harmonization and Practical Recommendation in the TOPMed Program. The Boston University and Framingham Heart Study (BU-FHS) seminar. Online, Feb 2024.
3. Utilization of molecular traits in heart failure research: opportunities and challenges. Johns Hopkins Bloomberg School of Public Health Welch Center Grand Rounds. Online, May 2023.
4. Understanding the molecular mechanisms of heart failure: challenges and opportunities. Tulane University Translational Science Grand Rounds. Dec 2022.
5. Advancing epidemiology studies through omics measures: an exemplar from the Atherosclerosis Risk in Communities (ARIC) Study. Study to Explore Early Development

- (SEED): Genomic Priorities Workshop. Online, May 2022.
6. Multi-Omics Approaches to Study the Etiology of Cardiometabolic Diseases. UTHealth Center for Precision Health seminar. Online, November 2021.
 7. Metabolomics and Human Disease. The 17th Annual Conference for the Metabolomics Society. Online, June 2021.
 8. Overview of the Consortium of Metabolomics Studies (COMETS). The NHGRI Genome Sequencing Program (GSP) Workshop. Online, March 2021.
 9. Multi-Ethnic Whole-Genome Sequencing Analysis of Human Metabolome from Trans-Omics for Precision Medicine (TOPMed) Program Identifies Novel Genetic Loci. The Framingham Heart Study - OMICS Conference Series (FOCuS) seminar. Online, March 2021.
 10. Genetics, Metabolomics and Coronary Heart Disease. Metabolomics Association of North America (MANA). Online, September 2020.
 11. Genetics, Metabolomics and Coronary Heart Disease. Statistical Genetics Seminar, School of Public Health, Boston University. Boston, MA, April 2020.
 12. Genetics, Metabolomics and Coronary Heart Disease. Cardiovascular Research Seminar, Beth Israel Deaconess Medical Center. Boston, MA, April 2020.
 13. Genetics, Metabolomics and Cardiovascular Disease. James T. Willerson MD Cardiovascular Seminars. Texas Heart Institute. Houston, TX, February 2020.
 14. Structural Variation and Metabolomics. CHARGE Conference. Houston, TX, January 2020.
 15. Genetics, Metabolomics and Coronary Heart Disease. iBright Annual Conference. MD Anderson Cancer Center. Houston, TX, November 2019.
 16. Genetics and Metabolomics. GSP-TOPMed Program Workshop. Ann Arbor, MI, February 2019.
 17. Clonal Hematopoiesis and Inflammatory Markers of Peripheral Artery Disease Progression in the ARIC Study. George and Angelina Kostas Research Center for Cardiovascular Nanomedicine Annual International Meeting. Houston Methodist Research Institute, Houston, TX, October 2017.

TEACHING:

UTHealth Houston, Instructor (regular course)

2017-2023	PH 2612, Epidemiology I
2016-2019, 2021-2025	PH 2740, Cardiovascular Disease Epidemiology and Prevention
2016, 2018-2020	PH 2780, Applied Genetic Methods in Public Health

UTHealth Houston, Guest Lecturer

2022-2024	PH2950, Genetic Epidemiology of Chronic Disease course
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Baylor College of Medicine, Guest Lecturer

2018-2024	Atherosclerosis and Vascular Medicine
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SERVICE:

Institutional Committees:

2024-present	Chair, Faculty Award Committee
2024-2025	Chair, Human Genetics Center Faculty Research Committee
2023-present	Member, Research Council
2023-present	Co-Director, Human Genetics Center
2023-2024	Reviewer, PRIME Award
2020-2022	Member, Epidemiology Preliminary Exam Committee
2018-present	Member, Faculty Award Committee
2018-2020	Member, Human Genetics Center Faculty Research Committee
2017-present	Member, Epidemiology Curriculum Committee

National Memberships:

2021-present	Member, ASHG
2012-present	Member, AHA

Collaborative Studies and Consortia Activities:

2016-present	Investigator, Trans-Omics for Precision Medicine (TOPMed) Program Co-convener, TOPMed Metabolomics and Proteomics Working Group
2015-present	Investigator, Consortium of Metabolomics Studies (COMETS) Member, COMETS Steering and Executive Committee
2015-2024	Convener, COMETS Publication and Proposal Committee
2010-present	Investigator, CHARGE Consortium Co-convener, COMETS Metabolomics and Proteomics Working Group
2010-present	Investigator, Atherosclerosis Risk in Communities (ARIC) Study Member, ARIC Lab Committee

Grant Reviews:

2023-2027	Standing member, NIH CRD study section
2025	Reviewer, NIH CRD 2025 05; CRD 2026 01
2024	Reviewer, NIH CRD 2024 05; CRD 2024 10; CRD 2025 01
2023	Reviewer, NIH CRD 2023 05; CRD 2023 10; CRD 2024 01
2022	Reviewer, NIH IRAP 2020 5; IRAP 2020 10; AHA Translational Project Award
2021	Reviewer, NIH ZRG1 PSE-N (02); ZRG1 PSE-W 02 M; Swiss National Science Foundation (NSF); AHA Predoctoral and Postdoctoral Fellowship Award
2020	Reviewer, NIH IRAP 2020 10; ZRG1 PSE-W (56) R; NHLBI Big Data Analysis Challenge; AHA Translational Project Award
2019	Reviewer, NIH IRG- ZES1 LWJ-K K 1; AHA Translational Project Award; AHA Predoctoral and Postdoctoral Fellowship Award; United Kingdom Chronic Disease Research Foundation (CDRF)
2018	Reviewer, United Kingdom CDRF AHA Uncovering New Patterns Grants and Fellowship

2017 Reviewer, Swiss NSF