

CURRICULUM VITAE
BING YU, PHD, FAHA

PRESENT TITLE: Associate Professor

ADDRESS: Department of Epidemiology, Human Genetics and Environmental Sciences
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ACADEMIC POSITIONS:

2023-present *Co-Director*
Human Genetics Center, UTHealth Houston SPH, Houston, TX

2021-present *JLH Foundation Chair in Transplant Prevention*
Department of Epidemiology, Human Genetics and Environmental Sciences
(EHGES), UTHealth Houston SPH, Houston, TX

2019-present *Associate Professor with tenure*
EHGES, UTHealth Houston SPH, Houston, TX

2015-2019 *Tenure-track Assistant Professor*
EHGES, UTHealth Houston SPH, Houston, TX

2013-2015 *Postdoctoral fellow*
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. 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 Jun 12; PubMed PMID: 37306504
2. 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, Gersztern 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.
3. 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.
4. 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.
5. 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.
6. 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.
7. 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
8. 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.
9. 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.

10. 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
11. 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.
12. 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).
13. 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.
14. 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.
15. 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.
16. Lee Y, Chen H, Chen W, Qi Q, Afshar M, Cai J, Daviglius 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.
17. 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.
18. 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.
19. 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.

20. 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.
21. 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.
22. **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.
23. Mei Z, Chen GC, Wang Z, Usyk M, **Yu B**, Baeza YV, Humphrey G, Benitez RS, Li J, Williams-Nguyen JS, Daviglius 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.
24. 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.
25. 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.
26. 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.
27. 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.
28. 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.
29. 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.
30. Feofanova EV, Chen H, Dai Y, Jia P, Grove ML, Morrison AC, Qi Q, Daviglius 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.
31. 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.
 32. 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.
 33. 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)
 34. Chen GC, Chai JC, **Yu B**, Michelotti GA, Grove ML, Fretts AM, Daviglius 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.
 35. 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.
 36. 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.
 37. 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.
 38. 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.
 39. 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.
 40. 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.
 41. 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.

42. 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)
43. 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.
44. 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.
45. 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.
46. **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.
47. 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.
48. 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.
49. 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.
50. **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)
51. 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.
52. 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.
53. 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.
54. 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.
55. 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.
56. 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.
57. 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. 2018; 209(2):607-616.
58. 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.
59. 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.
60. 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.
61. 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.
62. 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.
63. 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.
64. 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.
65. Seidelmann 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).
66. 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.

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

R01HL141824 (Yu) 04/2018 - 03/2024 (NCE)
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

R01HL148218 (Shah/Yu) 07/2020 - 06/2024
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

R01HL160793 (Yu/Ramachandran) 08/2022 – 06/2026
Genetic Architecture of Cardiac Structure and Function and Its Implication in Heart Failure

The major 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, to provide insights into the biological pathways underlying progressive cardiac dysfunction and 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 –06/2024
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)

Completed Grant Awards (with role as PI):

R01HL142003 05/2018 - 04/2022

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

The overall 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

This is an intramural award that provides funding for pilot studies at UTHealth School of Public Health. The goal of this project is to support Dr. Yu to conduct pilot study on genetics, metabolomics and lipids.

Role: PI

INVITED TALKS:

1. 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.
2. Understanding the molecular mechanisms of heart failure: challenges and opportunities. Tulane University Translational Science Grand Rounds. Dec 2022.
3. 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.
4. Multi-Omics Approaches to Study the Etiology of Cardiometabolic Diseases. UTHealth Center for Precision Health seminar. Online, November 2021.
5. Metabolomics and Human Disease. The 17th Annual Conference for the Metabolomics Society. Online, June 2021.
6. Overview of the Consortium of Metabolomics Studies (COMETS). The NHGRI Genome Sequencing Program (GSP) Workshop. Online, March 2021.
7. 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.
8. Genetics, Metabolomics and Coronary Heart Disease. Metabolomics Association of North America (MANA). Online, September 2020.
9. Genetics, Metabolomics and Coronary Heart Disease. Statistical Genetics Seminar, School of Public Health, Boston University. Boston, MA, April 2020.

10. Genetics, Metabolomics and Coronary Heart Disease. Cardiovascular Research Seminar, Beth Israel Deaconess Medical Center. Boston, MA, April 2020.
11. Genetics, Metabolomics and Cardiovascular Disease. James T. Willerson MD Cardiovascular Seminars. Texas Heart Institute. Houston, TX, February 2020.
12. Structural Variation and Metabolomics. CHARGE Conference. Houston, TX, January 2020.
13. Genetics, Metabolomics and Coronary Heart Disease. iBright Annual Conference. MD Anderson Cancer Center. Houston, TX, November 2019.
14. Genetics and Metabolomics. GSP-TOPMed Program Workshop. Ann Arbor, MI, February 2019.
15. 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, 2021-2023	PH 2740, Cardiovascular Disease Epidemiology and Prevention
2016, 2018-2020	PH 2780, Applied Genetic Methods in Public Health

UTHealth Houston, Guest Lecturer

2022-2023	PH2950, Genetic Epidemiology of Chronic Disease course
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Baylor College of Medicine, Guest Lecturer

2018-2023	Atherosclerosis and Vascular Medicine
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SERVICE:

Institutional Committees:

2023-present	Member, Research Council
2023-present	Co-Director, Human Genetics Center
2023	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

Grant Reviews:

2023-2027	Standing member, NIH CRD study section
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