

Curriculum Vitae

Hao Mei

Contact Address:

Hao Mei, PhD
Associate Professor
Department of Data Science
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Education

05/2007 Ph.D. Double majors in Bioinformatics and statistics, North Carolina State University, Raleigh, NC
06/2003 M.S., Biomedical Informatics, University of Washington, Seattle, WA
07/1997 Bachelor of Medicine, China Medical University, China

Positions and Employment

2012 – Associate Professor, Department of Data Science, School of Population Health, University of Mississippi Medical Center, USA
2012 – Adjunct Professor, Shanghai Children's Medical Center, Shanghai JiaoTong University, China
2008 –2012 Assistant Professor, Department of Epidemiology, School of Public Health, Tulane University, New Orleans, LA
2007– 2008 Postdoctoral fellow, Center for Human Genetics, School of Medicine, Duke University, Durham, NC
2003 – 2007 Statistical Geneticist, Center for Human Genetics, School of Medicine, Duke University, Durham, NC
2001 – 2003 Computer Scientist and Biostatistician, Department of Biostatistics, University of Washington, Seattle, WA

Teaching

2017- Statistical Inferences in Genetic Study, University of Mississippi Medical Center
2017 ID713 Bioinformatics and Genomics, University of Mississippi Medical Center
2009-2012 Genetic Epidemiology, Department of Epidemiology, Tulane University, USA

Professional Memberships

- Editorial Board of Enliven: Biostatistics and Metrics
- Editorial Board of International Journal of Molecular Epidemiology and Genetics
- Editorial Board of Frontiers in Genetics of Aging
- Editorial Board of Frontiers in Statistical Genetics and Methodology
- American Heart Association
- American Society of Human Genetics
- American Statistical Association

Journal and Book Review

- American Journal of Human Genetics
- American Journal of Hypertension
- Annals of Human Genetics
- Genetics
- Human Genetics
- PLoS ONE
- Recent Patents on Cardiovascular Drug Discovery
- Mathematics and Computer Science Cambridge University Press
- Garland Science (Taylor & Francis Group)
- ...

PEER-REVIEWED PUBLICATIONS

1. Li M, Maruthur NM, Loomis SJ, Pietzner M, North KE, ***Mei H***, Morrison AC, Friedrich N, Pankow JS, Nauck M, Boerwinkle E, Teumer A, Selvin E, Kottgen A: Genome-wide association study of 1,5-anhydroglucitol identifies novel genetic loci linked to glucose metabolism. *Scientific reports* 2017, **7**(1):2812. PMID:28588231.
2. ***Mei H***, Li L, Liu S, Jiang F, Griswold M, Mosley T: **Tissue Non-Specific Genes and Pathways Associated with Diabetes: An Expression Meta-Analysis**. *Genes (Basel)* 2017, **8**(1). PMID: 28117714.
3. ***Mei H***, Li L, Jiang F, Simino J, Griswold M, Mosley T, Liu S: **snpGeneSets: An R Package for Genome-Wide Study Annotation**. *G3* 2016, **6**(12):4087-4095. PMID: 27807048.
4. ***Mei H***, Li L, Liu S, Jiang F, Griswold M, Mosley T: **The uniform-score gene set analysis for identifying common pathways associated with different diabetes traits**. *BMC genomics* 2015, **16**(1):336. PMID: 25898945.
5. Wang J, ***Mei H***, Chen W, Jiang Y, Sun W, Li F, Fu Q, Jiang F: **Study of eight GWAS-identified common variants for association with obesity-related indices in Chinese children at puberty**. *International journal of obesity* 2012, **36**(4):542-547. PMID: 22083549.
6. ***Mei H***, Gu D, Hixson JE, Rice TK, Chen J, Shimmin LC, Schwander K, Kelly TN, Liu DP, Chen S, Huang JF, Jaquish CE, Rao DC, He J: **Genome-wide Linkage and Positional Association Study of Blood Pressure Response to Dietary Sodium Intervention: The GenSalt Study**. *American journal of epidemiology* 2012. PMID: 22865701.
7. ***Mei H***, Chen W, Mills K, He J, Srinivasan SR, Schork N, Murray S, Berenson GS: **Influences of FTO gene on onset age of adult overweight**. *Human genetics* 2012, **131**(12):1851-1859. PMID: 22842737.
8. ***Mei H***, Chen W, Jiang F, He J, Srinivasan S, Smith EN, Schork N, Murray S, Berenson GS: **Longitudinal replication studies of GWAS risk SNPs influencing body mass index over the course of childhood and adulthood**. *PLoS One* 2012, **7**(2):e31470. PMID: 22355368.

9. **Mei H**, Rice TK, Gu D, Hixson JE, Jaquish CE, Zhao Q, Chen JC, Cao J, Li J, Kelly TN, Rao DC, He J: **Genetic correlation of blood pressure responses to dietary sodium and potassium intervention and cold pressor test in Chinese population.** *Journal of human hypertension* 2011, **25**(8):500-508. PMID: 20861867.
10. **Mei H**, Chen W, Srinivasan SR, Jiang F, Schork N, Murray S, Smith E, So JD, Berenson GS: **FTO influences on longitudinal BMI over childhood and adulthood and modulation on relationship between birth weight and longitudinal BMI.** *Human genetics* 2010, **128**(6):589-596. PMID: 20811910.
11. **Mei H**, Chen W, Dellinger A, He J, Wang M, Yau C, Srinivasan SR, Berenson GS: **Principal-component-based multivariate regression for genetic association studies of metabolic syndrome components.** *BMC genetics* 2010, **11**(1):100. PMID: 21062472.
12. **Mei H**, Gu D, Rice TK, Hixson JE, Chen J, Jaquish CE, Zhao Q, Chen CS, Chen JC, Gu CC, Kelly TN, He J: **Heritability of blood pressure responses to cold pressor test in a Chinese population.** *American journal of hypertension* 2009, **22**(10):1096-1100. PMID: 19661924.
13. **Mei H**, Cuccaro ML, Martin ER: **Multifactor dimensionality reduction-phenomics: a novel method to capture genetic heterogeneity with use of phenotypic variables.** *American journal of human genetics* 2007, **81**(6):1251-1261. PMID: 17999363.
14. **Mei H**, Ma D, Ashley-Koch A, Martin ER: **Extension of multifactor dimensionality reduction for identifying multilocus effects in the GAW14 simulated data.** *BMC genetics* 2005, **6 Suppl 1**:S145. PMID: 16451605.
15. **Mei H**, Tarczy-Hornoch P, Mork P, Rossini AJ, Shaker R, Donelson L: **Expression array annotation using the BioMediator biological data integration system and the BioConductor analytic platform.** *AMIA Annual Symposium proceedings / AMIA Symposium AMIA Symposium* 2003:445-449. PMID: 14728212.
16. Liu S, Wilson JG, Jiang F, Griswold M, Correa A, **Mei H**: **Multi-variant study of obesity risk genes in African Americans: The Jackson Heart Study.** *Gene* 2016, **593**(2):315-321. PMID: 27575456.
17. Du Q, Yu M, Li Y, Du H, Gao W, **Mei H**, Liu S: **Permanent caries experience is associated with primary caries experience: a 7-year longitudinal study in China.** *Community Dent Oral Epidemiol* 2016. PMID: 27642152.
18. Li C, Chen W, Jiang F, Simino J, Srinivasan SR, Berenson GS, **Mei H**: **Genetic association and gene-smoking interaction study of carotid intima-media thickness at five GWAS-indicated genes: the Bogalusa Heart Study.** *Gene* 2015, **562**(2):226-231. PMID: 25746325.
19. van den Berg ME, Warren HR, Cabrera CP, Verweij N, Mifsud B, Haessler J, Bihlmeyer NA, Fu YP, Weiss S, Lin HJ, Grarup N, Li-Gao R, Pistis G, Shah N, Brody JA, Muller-Nurasyid M, Lin H, **Mei H**, Smith AV, Lyytikainen LP, Hall LM, van Setten J, Trompet S, Prins BP, Isaacs A, Radmanesh F, Marten J, Entwistle A, Kors JA, Silva CT, Alonso A, Bis JC, de Boer R, de Haan HG, de Mutsert R, Dedoussis G, Dominiczak AF, Doney ASF, Ellinor PT, Eppinga RN, Felix SB, Guo X, Hagemeijer Y, Hansen T, Harris

- TB, Heckbert SR, Huang PL, Hwang SJ, Kahonen M, Kanters JK, Kolcic I, Launer LJ, Li M, Yao J, Linneberg A, Liu S, Macfarlane PW, Mangino M, Morris AD, Mulas A, Murray AD, Nelson CP, Orru M, Padmanabhan S, Peters A, Porteous DJ, Poulter N, Psaty BM, Qi L, Raitakari OT, Rivadeneira F, Roselli C, Rudan I, Sattar N, Sever P, Sinner MF, Soliman EZ, Spector TD, Stanton AV, Stirrups KE, Taylor KD, Tobin MD, Uitterlinden A, Vaartjes I, Hoes AW, van der Meer P, Volker U, Waldenberger M, Xie Z, Zoledziewska M, Tinker A, Polasek O, Rosand J, Jamshidi Y, van Duijn CM, Zeggini E, Jukema JW, Asselbergs FW, Samani NJ, Lehtimaki T, Gudnason V, Wilson J, Lubitz SA, Kaab S, Sotoodehnia N, Caulfield MJ, Palmer CNA, Sanna S, Mook-Kanamori DO, Deloukas P, Pedersen O, Rotter JI, Dorr M, O'Donnell CJ, Hayward C, Arking DE, Kooperberg C, van der Harst P, Eijgelsheim M, Stricker BH, Munroe PB: **Discovery of novel heart rate-associated loci using the Exome Chip**. *Hum Mol Genet* 2017, 26(12):2346-2363. PMID:28379579.
20. Peloso GM, Lange LA, Varga TV, Nickerson DA, Smith JD, Griswold ME, Musani S, Polfus LM, **Mei H**, Gabriel S, Quarells RC, Altshuler D, Boerwinkle E, Daly MJ, Neale B, Correa A, Reiner AP, Wilson JG, Kathiresan S: **Association of Exome Sequences With Cardiovascular Traits Among Blacks in the Jackson Heart Study**. *Circulation Cardiovascular genetics* 2016, 9(4):368-374. PMID: 27422940.
21. Liu C, Kraja AT, Smith JA, Brody JA, Franceschini N, Bis JC, Rice K, Morrison AC, Lu Y, Weiss S, Guo X, Palmas W, Martin LW, Chen YD, Surendran P, Drenos F, Cook JP, Auer PL, Chu AY, Giri A, Zhao W, Jakobsdottir J, Lin LA, Stafford JM, Amin N, **Mei H**, Yao J, Voorman A, Consortium CHDE, Exome BPC, Go TDC, Consortium TDG, Larson MG, Grove ML, Smith AV, Hwang SJ, Chen H, Huan T, Kosova G, Stitzel NO, Kathiresan S, Samani N, Schunkert H, Deloukas P, Myocardial Infarction G, Consortia CAE, Li M, Fuchsberger C, Pattaro C, Gorski M, Consortium CK, Kooperberg C, Papanicolaou GJ, Rossouw JE, Faul JD, Kardia SL, Bouchard C, Raffel LJ, Uitterlinden AG, Franco OH, Vasan RS, O'Donnell CJ, Taylor KD, Liu K, Bottinger EP, Gottesman O, Daw EW, Giulianini F, Ganesh S, Salfati E, Harris TB, Launer LJ, Dorr M, Felix SB, Rettig R, Volzke H, Kim E, Lee WJ, Lee IT, Sheu WH, Tsosie KS, Edwards DR, Liu Y, Correa A, Weir DR, Volker U, Ridker PM, Boerwinkle E, Gudnason V, Reiner AP, van Duijn CM, Borecki IB, Edwards TL, Chakravarti A, Rotter JI, Psaty BM, Loos RJ, Fornage M, Ehret GB, Newton-Cheh C, Levy D, Chasman DI: **Meta-analysis identifies common and rare variants influencing blood pressure and overlapping with metabolic trait loci**. *Nature genetics* 2016, 48(10):1162-1170. PMID: 27618448.
22. Wang Y, Mei H, Jiang YR, Sun WQ, Song YJ, Liu SJ, Jiang F: **Relationship between Duration of Sleep and Hypertension in Adults: A Meta-Analysis**. *Journal of clinical sleep medicine : JCSM : official publication of the American Academy of Sleep Medicine* 2015, 11(9):1047-1056. PMID: 25902823.
23. Joshi PK, Esko T, Mattsson H, Eklund N, Gandin I, Nutile T, Jackson AU, Schurmann C, Smith AV, Zhang W, Okada Y, Stancakova A, Faul JD, Zhao W, Bartz TM, Concas MP, Franceschini N, Enroth S, Vitart V, Trompet S, Guo X, Chasman DI, O'Connell JR, Corre T, Nongmaithem SS, Chen Y, Mangino M, Ruggiero D, Traglia M, Farmaki AE, Kacprowski T, Bjornes A, van der Spek A, Wu Y, Giri AK, Yanek LR, Wang L, Hofer E,

- Rietveld CA, McLeod O, Cornelis MC, Pattaro C, Verweij N, Baumbach C, Abdellaoui A, Warren HR, Vuckovic D, **Mei H**, Bouchard C, Perry JR, Cappellani et. al: **Directional dominance on stature and cognition in diverse human populations.** *Nature* 2015. PMID: 26131930.
24. Jiang YR, Spruyt K, Chen WJ, **Mei H**, Sun WQ, Wang Y, Li SH, Luo ZC, Shen XM, Jiang F: **Associations between parent-reported sleep duration and adiposity in Chinese early adolescents.** *Journal of public health* 2015, **37**(2):277-285. PMID: 25104839.
25. Rebholz CM, Reynolds K, Wofford MR, Chen J, Kelly TN, **Mei H**, Whelton PK, He J: **Effect of soybean protein on novel cardiovascular disease risk factors: a randomized controlled trial.** *European journal of clinical nutrition* 2013, **67**(1):58-63. PMID: 23187956.
26. He J, Kelly TN, Zhao Q, Li H, Huang J, Wang L, Jaquish CE, Sung YJ, Shimmin LC, Lu F, Mu J, Hu D, Ji X, Shen C, Guo D, Ma J, Wang R, Shen J, Li S, Chen J, **Mei H**, Chen CS, Chen S, Chen J, Li J, Cao J, Lu X, Wu X, Rice TK, Gu CC, Schwander K, Hamm LL, Liu D, Rao DC, Hixson JE, Gu D: **Genome-wide association study identifies 8 novel Loci associated with blood pressure responses to interventions in han chinese.** *Circulation Cardiovascular genetics* 2013, **6**(6):598-607. PMID: 24165912.
27. Wen W, Cho YS, Zheng W, Dorajoo R, Kato N, Qi L, Chen CH, Delahanty RJ, Okada Y, Tabara Y, Gu D, Zhu D, Haiman CA, Mo Z, Gao YT, Saw SM, Go MJ, Takeuchi F, Chang LC, Kokubo Y, Liang J, **Hao M**, Le Marchand L, Zhang Y, Hu Y, Wong TY, Long J, Han BG, Kubo M, Yamamoto K, Su MH, Miki T, Henderson BE, Song H, Tan A, He J, Ng DP, Cai Q, Tsunoda T, Tsai FJ, Iwai N, Chen GK, Shi J, Xu J, Sim X, Xiang YB, Maeda S, Ong RT, Li C, Nakamura Y, Aung T, Kamatani N, Liu JJ, Lu W, Yokota M, Seielstad M, Fann CS, Wu JY, Lee JY, Hu FB, Tanaka T, Tai ES, Shu XO: **Meta-analysis identifies common variants associated with body mass index in east Asians.** *Nature genetics* 2012. PMID: 22344219.
28. Okada Y, Sim X, Go MJ, Wu JY, Gu D, Takeuchi F, Takahashi A, Maeda S, Tsunoda T, Chen P, Lim SC, Wong TY, Liu J, Young TL, Aung T, Seielstad M, Teo YY, Kim YJ, Lee JY, Han BG, Kang D, Chen CH, Tsai FJ, Chang LC, Fann SJ, **Mei H**, Rao DC, Hixson JE, Chen S, Katsuya T, Isono M, Ogihara T, Chambers JC, Zhang W, Kooner JS, Albrecht E, Yamamoto K, Kubo M, Nakamura Y, Kamatani N, Kato N, He J, Chen YT, Cho YS, Tai ES, Tanaka T: **Meta-analysis identifies multiple loci associated with kidney function-related traits in east Asian populations.** *Nature genetics* 2012, **44**(8):904-909. PMID: 22797727.
29. Zhao Q, Gu D, Hixson JE, Liu DP, Rao DC, Jaquish CE, Kelly TN, Lu F, Ma J, Mu J, Shimmin LC, Chen J, **Mei H**, Hamm LL, He J: **Common variants in epithelial sodium channel genes contribute to salt sensitivity of blood pressure: The GenSalt study.** *Circulation Cardiovascular genetics* 2011, **4**(4):375-380. PMID: 21562341.
30. Chen W, Srinivasan SR, Ruan L, **Mei H**, Berenson GS: **Adult hypertension is associated with blood pressure variability in childhood in blacks and whites: the bogalusa heart study.** *American journal of hypertension* 2011, **24**(1):77-82. PMID: 20725054.

31. Kelly TN, Hixson JE, Rao DC, ***Mei H***, Rice TK, Jaquish CE, Shimmin LC, Schwander K, Chen CS, Liu D, Chen J, Bormans C, Shukla P, Farhana N, Stuart C, Whelton PK, He J, Gu D: **Genome-wide linkage and positional candidate gene study of blood pressure response to dietary potassium intervention: the genetic epidemiology network of salt sensitivity study.** *Circulation Cardiovascular genetics* 2010, **3**(6):539-547. PMID: 20861505.
32. Ashley-Koch AE, Jaworski J, Ma de Q, ***Mei H***, Ritchie MD, Skaar DA, Robert DeLong G, Worley G, Abramson RK, Wright HH, Cuccaro ML, Gilbert JR, Martin ER, Pericak-Vance MA: **Investigation of potential gene-gene interactions between APOE and RELN contributing to autism risk.** *Psychiatr Genet* 2007, **17**(4):221-226. PMID: 17621165.
33. Ashley-Koch AE, ***Mei H***, Jaworski J, Ma DQ, Ritchie MD, Menold MM, DeLong GR, Abramson RK, Wright HH, Hussman JP, Cuccaro ML, Gilbert JR, Martin ER, Pericak-Vance MA: **An analysis paradigm for investigating multi-locus effects in complex disease: examination of three GABA receptor subunit genes on 15q11-q13 as risk factors for autistic disorder.** *Annals of human genetics* 2006, **70**(Pt 3):281-292. PMID: 16674551.
34. Shah SH, Schmidt MA, ***Mei H***, Scott WK, Hauser ER, Schmidt S: **Searching for epistatic interactions in nuclear families using conditional linkage analysis.** *BMC genetics* 2005, **6 Suppl 1**:S148. PMID: 16451608. Journal IF (2015): 2.775
35. Ma DQ, Whitehead PL, Menold MM, Martin ER, Ashley-Koch AE, ***Mei H***, Ritchie MD, DeLong GR, Abramson RK, Wright HH, Cuccaro ML, Hussman JP, Gilbert JR, Pericak-Vance MA: **Identification of significant association and gene-gene interaction of GABA receptor subunit genes in autism.** *American journal of human genetics* 2005, **77**(3):377-388. PMID: 16080114.
36. Donelson L, Tarczy-Hornoch P, Mork P, Dolan C, Mitchell JA, Barrier M, ***Mei H***: **The BioMediator system as a data integration tool to answer diverse biologic queries.** *Studies in health technology and informatics* 2004, **107**(Pt 2):768-772. PMID: 15360916.

DEVELOPED RESEARCH SOFTWARE

- **Mei H**, Li L, Jiang F, Simino J, Griswold M, Mosley T, Liu S. snpGeneSets V1.12. https://www.umc.edu/biostats_software/ . License: GPL (version 2 or later)
- **Mei H**, Cuccaro ML, Martin ER: Multifactor dimensionality reduction V1.01. https://www.umc.edu/biostats_software/ . License: GPL (version 2 or later)
- **Mei H**, Ma D, Ashley-Koch A, Martin ER. EMDR V1.83. https://www.umc.edu/biostats_software/ . License: GPL (version 2 or later)

INVITED SPEAK, PRESENTATIONS AND POSTERS

- **Hao Mei**. The Uniform-Score Gene Set Analysis of Genetic Pathways Associated

- with Diabetes Traits. 3rd International Conference on Genomics & Pharmacogenomics. September 22, 2015. San Antonio, USA
- **Hao Mei**, Pathway Analysis of Memory Performance, International CHARGE-Study Conference, LA 2014.
 - **Hao Mei**, University of Mississippi Medical Center Research Day Education (2013)
 - **Hao Mei**, Jiang Fan, et.al. Association between short sleep duration and adiposity among Chinese preadolescents. *American Heart Association* (2011)
 - **Hao Mei**, Dongfeng Gu, James E. Hixson, et. al. Genome-wide Linkage and Candidate Gene Association Study of Blood Pressure Response to Dietary Sodium Intervention in Chinese Population. *China Heart Congress & International Heart Forum Beijing (2010)*.
 - **Hao Mei**, Wei Chen, Canddy Yau, Sathanur Srinivasan, Gerald Berenson. Identification of Genes for Susceptibility to Abdominal Obesity--Metabolic Syndrome. *CVD Epidemiology and Prevention Conference by American Heart Association* (2010)
 - **Hao Mei**, James Hixson, Dongfeng Gu, etc Genome-wide Linkage Study of Blood Pressure Response to Low Sodium and High-Sodium Intervention in a Chinese Population. *CVD Epidemiology and Prevention Conference by American Heart Association* (2010)
 - Tanika N Kelly, James E Hixson, Dabeeru C Rao, **Hao Mei**, Cashell E Jaquish, etc. Genome-wide Linkage Study of Blood Pressure Response to Dietary Potassium Intervention. *CVD Epidemiology and Prevention Conference by American Heart Association* (2010)
 - **Mei Hao**, Dongfeng Gu, Treva Rice. etc. Heritability Of Blood Pressure Response To Cold Pressor Test In A Chinese Population. *CVD Epidemiology and Prevention Conference by American Heart Association* (2009)
 - **H. Mei**, Y.J. Li, M. K. Uyenoyama. Methods of Complex Disease Gene Mapping. *Meeting of Genomic Patterns and Processes of Introgression* (2008).
 - **H. Mei**, Y.J. Li, M. K. Uyenoyama. Sequence Simulation by Forward Algorithm. *Meeting of Genomic Patterns and Processes of Introgression* (2008).
 - **H. Mei**, ER. Martin, MA. Pericak-Vance & ML. Cuccaro. Identification of multiple-gene associations from SLC6A4, ITGB3 and GABA receptor subunit genes in autism by MDR-Phenomics. *Conference of American Society of Human Genetics* (2006).
 - E.R. Martin, **H. Mei**, J.R. Gilbert. M.A. Pericak-Vance & M.L. Cuccaro. MDR-phenomics combines clinical and genetic information. *International meeting for autism research* (2006)
 - **H. Mei**, ML. Cuccaro, MA. Pericak-Vance & ER. Martin. Identification of Complex Disease Gene in high dimensionality. *Conference of American Society of Human Genetics* (2005).
 - **Mei, H.**, Tarczy-Hornoch, P., Mork, P. & Rossini, A. J. Automating expression array annotation with the EAA system. *Conference of American Medical Informatics Association* (2004)

NATIONAL GRANT AND CONTRACT SUPPORT (Ongoing)

- Funding Source: NIH; Project Number: 4P20GM103629-05; Title: **Genetic Determinants of Vascular Aging (CARDIOVASCULAR DOMAIN)**
- Funding Source: NIH (INBRE); Project Number: 4P20GM103476-15; Title: **Role of DCLK1 in the oncogenesis and chemoresistance of colorectal cancer**
- Funding Source: NIH; Project Number: HHSN268201100010C; Title: ***Atherosclerosis Risk in Communities Study***
- Funding Source: NIH; Project Number: HSN268201300046C; Title: **Jackson Heart Study;**
- Funding Source: NIH; Project Number: HL120393-01A1; Title: **Rare Variants and NHLBI Traits in Deeply Phenotyped Cohorts**
- Funding Source: DoD; Project Number: W81XWH-16-1-0109; Title: **Investigating the Role of Twist1 in Diabetes Pathogenesis**
- Funding Source: NIH; Project Number: HL105756; Title: **gene discovery for CVD and aging phenotypes**