

Erin Bakshis Ware, Ph.D., M.A., M.P.H.

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EDUCATION

2014 **Post-doctoral training** in genetic epidemiology
University of Michigan, Ann Arbor, MI
Supervisor: Dr. Sharon Kardia

2014 **Ph.D.** in Epidemiological Sciences
University of Michigan, Ann Arbor, MI
Dissertation: Genes, the environment, and depressive symptom scores in
the Multi-Ethnic Study of Atherosclerosis
Advanced to Candidacy: Summer 2009
Oral defense: November 15, 2013
Advisor: Dr. Ana Diez-Roux, Previously: Dr. Sandro Galea

2013 **M.A.** in Statistics
University of Michigan, Ann Arbor, MI
Advisor: Dr. Ji Zhu

2008 **M.P.H.** in Public Health
University of Michigan, Ann Arbor, MI
Area of concentration: Epidemiology, mental health epidemiology
Advisor: Drs. Katherine Hoggatt, Sandro Galea

2006 **B.S.** in Mathematics, Sociology (*Cum Laude* and honors)
Minor: Religious Studies
Northern Michigan University, Marquette, MI

PROFESSIONAL RESEARCH APPOINTMENTS

2020 – Present	Faculty affiliate <i>University of Michigan</i> Michigan Alzheimer's Disease Research Center
2019 – Present	Faculty Affiliate <i>University of Michigan</i> , Institute of Social Research Population Studies Center Population Dynamics and Health Program
August 2018 – Present	Research Assistant Professor <i>University of Michigan</i> , Institute of Social Research Survey Research Center Population, Neurodevelopment, and Genetics
2017 – Present	Faculty Affiliate <i>University of Michigan</i> , Institute of Social Research Michigan Center for the Demography of Aging
Nov 2016 – Aug 2018	Research Investigator <i>University of Michigan</i> , Institute of Social Research Survey Research Center Population, Neurodevelopment, and Genetics
Nov 2014 – Oct 2016	Research Investigator <i>University of Michigan</i> , Institute of Social Research Research Center for Group Dynamics Biosocial Methods Collaborative
March 2014 – March 2015	Research Analyst <i>University of Michigan</i> , Institute of Social Research Army Study to Assess Risk and Resilience in Service members
January 2014 – Oct. 2014	Research Area Specialist – Post-doctoral training <i>University of Michigan</i> , Department of Epidemiology Genomics, Life Science, and Community Collaborative Supervisor: Dr. Sharon Kardia
Summer 2012 and 2013 May 2010 – August 2011	Graduate Student Research Assistant , <i>University of Michigan</i> <i>School of Public Health</i> , Center for Social Epidemiology and Population Health, Ann Arbor, MI Advisor: Ana Diez-Roux, MD, DrPH *Robert Woods Johnson Foundation Health & Society Scholars Small Grant Award, August 2010-August 2011
September 2008 – December 2009	Graduate Student Research Assistant , <i>University of Michigan</i> <i>School of Public Health</i> , Center for Social Epidemiology and Population Health, Ann Arbor, MI Advisor: Sandro Galea, MD, DrPH
2006 – September 2008	Research Assistant , <i>University of Michigan School of Public Health</i> , Center for Social Epidemiology and Population Health, Ann Arbor, MI Advisor: George Kaplan, PhD
Summer 2007	Research Intern , <i>University of Michigan School of Public Health</i> , Center for Social Epidemiology and Population Health, Ann Arbor, MI Advisors: Sandro Galea, MD, DrPH; George Kaplan, PhD

PUBLICATIONS

Refereed articles and abstracts

Note on author order:

My work spans several disciplines but broadly, publication order follows the medical model. The first, second, and senior (last) author positions are reserved for those who guide, fund, perform, write, and conceptualize the bulk of analyses. I have noted places where I am the first, second, or senior author and when a student I have mentored is in one of those positions.

Consortia publications: in genetic publications, the consortium allows each cohort spots for a primary analyst and a senior author who is typically the PI of the study. The analytic lead for each study would generally be considered a “second” author. I have noted places where I am the analytic lead for a genetic consortium.

2021

First, second, or senior author:

- **Ware EB**, Morataya C, Fu M, Bakulski KM. Type 2 diabetes and dementia in the Health and Retirement Study: A Mendelian randomization approach. *Frontiers in Genetics*. *In Press*
- Fu M, Bakulski KM, Higgins C, **Ware EB**. Mendelian randomization of dyslipidemia on cognitive impairment among older Americans. *Frontiers in Neurology*. *In Press*
- Gard AM, **Ware EB**, Hyde LW, Schmitz L, Faul J, Mitchell C. Phenotypic and Genetic Markers of Psychopathology in a Population-Based Sample of Older Adults. *Translational Psychiatry*. *In Press*
- Faul JD, **Ware EB**, Kabeto MU, Langa KM. The effect of childhood socioeconomic position and social mobility on cognitive function and change among older adults: A comparison between the United States and England. *Journal of Gerontology – B*. *In Press*.
- Bakulski KM, Vadari HS, Faul JD, Heeringa SG, Kardia SLR, Langa KM, Smith JA, Manly JJ, Mitchell CM, Benke KS, & **Ware EB**. Cumulative Genetic Risk and APOE $\epsilon 4$ Are Independently Associated With Dementia Status in a Multiethnic, Population-Based Cohort. *Neurology Genetics*, 7(2), e576. doi: 10.1212/nxg.0000000000000576.

Co-author:

- West BT, Little RJA, Andridge RR, Boonstra PS, **Ware EB**, Pandit A, Alvarado-Leiton F. Measures of Selection Bias in Regression Coefficients Estimated from Non-Probability Samples. *Annals of Applied Statistics*. *In Press*
- Juhn MA, Mendelson M, Wilson R, Gondalia R, Joehanes R, Salfati E, ... **Ware EB**, ... Assimes T. A multi-ethnic epigenome-wide association study of leukocyte DNA methylation and blood lipids. *Nature Communications*. *In Press*
- Middleton LYM, Dou JF, Fisher J, Heiss JA, Nguyen V, Just AC, Faul JD, **Ware EB**, Mitchell C*, Colacino JA*, Bakulski KM*. (In Press). Saliva cell type DNA methylation reference panel for epidemiology studies in children. *Epigenetics* doi: 10.1080/15592294.2021.1890874.

Health and Retirement Study analytic lead (“second author”) in a consortium:

- Sun D, Richard MA, Musani SK, Sung YJ, Winkler TW, Schwander K, ... **Ware EB**, ... Fornage M. Multi-ancestry genome-wide association study accounting for gene-psychosocial factor interactions identifies novel loci for blood pressure traits. *Human Genetics and Genomics Advances*, 2(1), 100013. doi:<https://doi.org/10.1016/j.xhgg.2020.100013>
- Graff M, Justice AE, Young KL, Marouli E, Zhang X, ..., **Ware EB**, ..., North KE. Discovery and fine-mapping of height loci via high-density imputation of GWASs in individuals of African ancestry. *Am J Hum Genet*. 2021 Apr 1;108(4):564-582. doi: 10.1016/j.ajhg.2021.02.011. Epub 2021 Mar 12. PMID: 33713608

2020

First, second, or senior author:

- **Ware EB**, Faul JD, Mitchell C, Bakulski KM. Considering the APOE locus in polygenic scores for Alzheimer's disease. (*BMC Medical Genomics*), 2020 Nov 3;13(1):164. doi: 10.1186/s12920-020-00815-9.

Health and Retirement Study analytic lead ("second author") in a consortium:

- de las Fuentes, L., Sung, Y. J., Noordam, R., Winkler, T., Feitosa, M. F., Schwander, K., . . . (**Ware EB**), ..., Lifelines Cohort, S. Gene-educational attainment interactions in a multi-ancestry genome-wide meta-analysis identify novel blood pressure loci. *Molecular Psychiatry*. 2020. doi:10.1038/s41380-020-0719-3

Co-author:

- Weiss J, Puterman E, Prather AA, **Ware EB**, Rehkopf DH. A data-driven prospective study of dementia among older adults in the United States. *PLoS ONE*. 2020 Oct 7;15(10):e0239994. doi: 10.1371/journal.pone.0239994
- Logue MW, Miller MW, Wolf EJ, Huber BR, Morrison FG, Zhou Z, ..., **Ware EB**, ..., Verfaellie M, and the Traumatic Stress Brain Study Group. An epigenome-wide association study of posttraumatic stress disorder in US veterans implicates several new DNA methylation loci. *Clin Epigenetics*. 2020 Mar 14;12(1):46. doi: 10.1186/s13148-020-0820-0.
- Kho M, Smith JA, Verweij N, Shang L, Ryan KA, Zhao E, **Ware EB**, Gansevoort RT, Irvin MR, Lee JE, Turner ST, Sung J, van der Harst P, Arnett DK, Baylin A, Park SK, Seo YA, Change YPC, Zhou X, Lieske J, Kardia SLR. Genome-wide meta-analysis identifies suggestive loci for sodium intake, potassium intake, and their ratio measured from 24-hour or half-day urine samples. (*American Journal of Clinical Nutrition*). *J Nutr*. 2020 Aug 25:nxaa241. doi: 10.1093/jn/nxaa241.
- Brown KM, Diez-Roux AV, Smith JA, Needham BL, Mukherjee B, **Ware EB**, Liu Y, Cole SW, Seeman TE, Kardia SLR. Social regulation of inflammation related gene expression in the Multi-Ethnic Study of Atherosclerosis. *Psychoneuroendocrinology*. 2020 May 6;117:104654. doi: 10.1016/j.psyneuen.2020.104654.

2019

First, second, or senior author:

- **Ware EB**, Smith JA, Zhao W, Gansevoort RT, Curhan G, Pollak M, Mount D, Turner ST, Chen G, Shah RJ, Kardia SLR, Lieske JC. (2019) Genome-wide association study of 24-Hour Urinary

Excretion of Calcium, Magnesium, and Uric Acid. (*Mayo Clin Proc Innov Qual Outcomes*). 2019 Nov 22;3(4):448-460. doi: 10.1016/j.mayocpiqo.2019.08.007.

- Schmitz LL, Gard AM, **Ware EB**. Examining Sex Differences in Pleiotropic Effects for Depression and Smoking Using Polygenic and Gene-Region Aggregation Techniques. (*American Journal of Medical Genetics Part B: Neuropsychiatric Genetics*) 180(6), 448-468. doi:10.1002/ajmg.b.32748
 - Taylor JY*, **Ware EB***, Wright ML, Smith JA, Kardia SLR. Primer in Genetics and Genomics, Article 8 - Multifactorial Concepts: Using Genetic Burden Scores for Gene-by-Methylation Interaction Analysis on Metabolic Syndrome in African Americans. (*Biological Research for Nursing*) 21(3), 279-285. doi:10.1177/1099800419828486
- *Co-first authors

Health and Retirement Study analytic lead ("second author") in a consortium:

- Bentley AR, Sung YL, Brown MR, ..., **Ware EB**, ..., Cupples LA. CHARGE gene x lifestyle working group. Multi-ancestry genome-wide gene-smoking interaction study of 387,272 individuals identifies new loci associated with serum lipids. (*Nature Genetics*). 51(4), 636-648. doi:10.1038/s41588-019-0378-y
- Deelen J, Evans DS, Arking DE, Tesi N, Nygaard M, Liu X, . . . **Ware EB**, . . . Murabito JM. A meta-analysis of genome-wide association studies identifies multiple longevity genes. (*Nature Communications*) 10(1), 3669. doi:10.1038/s41467-019-11558-2
- De Vries PS, Brown MR, Bentley AR, ... **Ware EB**, ..., et al., Morrison AC. Multi-ancestry genome-wide association study incorporating gene-alcohol interactions identifies new lipid loci. (*American Journal of Epidemiology*). doi: 10.1093/aje/kwz005.
- Kilpelainen TO, Bentley AR, Noordam R,... **Ware EB**, ..., et al., Loos RJF. Multi-Ancestry Study of Blood Lipid Levels Identifies Four Loci Interacting with Physical Activity. (*Nature Communications*) 10:376. doi: <https://doi.org/10.1038/s41467-018-08008>
- Sung YJ, de Las Fuentes L, Chasman DI, Bentley AR, Kraja AT, . . . **Ware EB**, . . . Morrison AC. A multi-ancestry genome-wide study incorporating gene-smoking interactions identifies multiple new loci for pulse pressure and mean arterial pressure. (*Human Molecular Genetics*) 28(15), 2615-2633. doi:10.1093/hmg/ddz070

Genomic Epidemiology Network of Arteriopathy analytic lead ("second author") in a consortium:

- Wang H, Nandakumar P, Tekola-Ayele F, Tayo BO, **Ware EB**, Gu CC, Lu Y, Yao J, Zhao W, Smith JA, Hellwege JN, Guo X, Edwards TL, Loos RJF, Arnett DK, Fornage M, Rotimi C, Kardia SLR, Cooper RS, Rao DC, Ehret G, Chakravarti A, Zhu X. Combined linkage and association analysis identifies rare and low frequency variants for blood pressure at 1q.31 (*Eur J Hum Genet*) (2):269-277. doi: 10.1038/s41431-018-0277-1.

Co-author:

- Brown KM, Diez-Roux AV, Smith JA, Needham BL, Mukherjee B, **Ware EB**, Liu Y, Cole SW, Seeman TE, Kardia SLR. Expression of socially sensitive genes: The Multi-Ethnic Study of Atherosclerosis. (*Plos One*) 14(4), e0214061. doi:10.1371/journal.pone.0214061

2018

First, second, or senior author:

- Wright ML, **Ware EB**, Smith JA, Kardia SLR, Taylor JY. Joint influence of SNPs and DNA methylation on lipids in African Americans from hypertensive sibships. (*Biol Res Nurs*) doi: 10.1177/1099800417752246. PMID: 29338330

Health and Retirement Study analytic lead (“second author”) in a consortium:

- Davies, G., Lam, M., Harris, S. E., Trampush, J. W., Luciano, M., Hill, W. D., ..., **Ware EB**, ..., Deary, I. J. Study of 300,486 individuals identifies 148 independent genetic loci influencing general cognitive function. (*Nat Commun*) 9(1), 2098. doi:10.1038/s41467-018-04362-x
- Feitosa MF, Kraja AT, Chasman DI, Sung YJ, Winkler TW, Ntalla I, ..., **Ware EB**, ..., Levy D. Novel genetic associations for blood pressure identified via gene-alcohol interaction in up to 570K individuals across multiple ancestries. (*PLoS One*) 13(6), e0198166. doi:10.1371/journal.pone.0198166
- Sung YJ, Thomas WW, de las Fuentes L, ... (incl. **Ware EB**)..., Cupples LA, Rao DC, Chasman DI. . A large-scale multi-ancestry genome-wide study incorporating gene-smoking interactions identifies 139 genome-wide significant loci for systolic and diastolic blood pressure. (*American Journal of Human Genetics*) doi: 10.1016/j.ajhg.2018.01.015. PMID: 29455858
- Turcot V, Lu Y, Highland HM, Schurmann C, Justice AE, Fine RS, ..., (including **Ware EB**), ...Loos R JF. Protein-altering variants associated with body mass index implicate pathways that control energy intake and expenditure in obesity. (*Nat Gen*) 50(1), 26-41. doi:10.1038/s41588-017-0011-x. PMID: 29273807

Mutliethnic Study of Atherosclerosis analytic lead (“second author”) in a consortium:

- Haljas K, Amare AT, Behrooz AZ, Sneider H, Hsu Y, Mosley T, Newman A, Murabity J, Tiemeier H, Tanaka T, van Duijn C, Ding J, Llewlllyn D, Bennet da, Terracciano A, Launer L, Grabe H, Baumert J, Cornelis M, Teumer A, Diez-Roux AV, Kardia SLR, **Ware EB**, Smith JA, Groop L, Eriksson JG, Rääkkönen K, Lahti J. Bivariate Genome-Wide Association Study of Depressive Symptoms with Type 2 Diabetes and Quantitative Glycemic Traits. (*Psychosom Med*) doi: 10.1097/PSY.0000000000000555. PMID: 29280852

Co-author:

- Liu J, Zhao W, **Ware EB**, Turner ST, Mosley TH, Smith JA. DNA methylation in the APOE genomic region is associated with cognitive function in African Americans. (*BMC Med Genomics*) 8;11(1):43. doi: 10.1186/s12920-018-0363-9.
- Rudra P, Broadway KA, **Ware EB**, Jhun MA, Bielak LF, Zhao W, Smith JA, Peyser PA, Kardia SLR, Epstein MP, Ghosh D. Testing cross-phenotype effects of rare variants in longitudinal studies of complex traits. (*Genetic Epidemiology*) doi:10.1002/gepi.22121. PMID: 29601641
- Kattah AG, Suarez MLG, Milic N, Kantarci K, Zeydan B, Mosley T, Turner ST, **Ware EB**, Kardia SLR, Garovic VD. Hormone therapy and urine protein excretion: a multiracial cohort study, systematic review, and meta-analysis. (*Menopause*) 102(3), 375-400. doi: 10.1097/GME.0000000000001062. PMID: 29381664
- Ward-Caviness CK, Huffman JE, Evertt K, Germain M, ... **Ware EB**, ..., Peters A. DNA methylation age is associated with an altered hemostatic profile in multi-ethnic meta-analysis. (*Blood*) pii: blood-2018-02-831347. doi: 10.1182/blood-2018-02-831347

2017

First, second, or senior author:

- Perinpam M, **Ware EB**, Smith JA, Turner STT, Kardia SLR, Lieske JC. Association of urinary citrate excretion, pH, and net gastrointestinal alkali absorption with diet, diuretic use, and diabetic risk factors. (*Physiological Reports*) 5(19). doi:10.14814/phy2.13411. PMID: 29038354
- Stein MB, **Ware EB**, Mitchell C, Chen CY, Borja S, Cai T, . . . Smoller JW. Genomewide association studies of suicide attempts in US soldiers. (*Am J Med Genet B Neuropsychiatr Genet*) 174(8), 786-797. doi: 10.1002/ajmg.b.32594. PMID: 28902444
- Zhao W, **Ware EB**, He Z, Kardia SLR, Faul JD, Smith JA. Interaction between social/psychosocial factors and genetic variants on Body Mass Index: A gene-environment interaction analysis in a longitudinal setting. (*Int J Environ Res Public Health*) 14(10). doi: 10.3390/ijerph14101153. PMID: 28961216

Health and Retirement Study analytic lead ("second author") in a consortium:

- Direk N, Williams S, Smith JA, Ripke S, Air T, . . . , **Ware EB**, et al. An analysis of two genome-wide association meta-analyses identifies a new locus for broad depression phenotype. (*Biol Psychiatry*) 82(5), 322-329. pii: S0006-3223(16)33068-2. doi:10.1016/j.biopsych.2016.11.013. PMID: 28049566
- Liang J, Le TH, Edwards DRV, Tayo BO, . . . , (incl. **Ware EB**), . . . , Rotimi C, Levy D, Chakravarti A, Zhu X, Franceschini N. Single-trait and multi-trait genome-wide association analyses identify novel loci for blood pressure in African-ancestry populations. (*Plos Genetics*) 13(5), e1006728. doi:10.1371/journal.pgen.1006728. PMID: 28498854
***Top 10% most cited PLOS Genetics papers published in 2017
- Ng MCY, Graff M, Lu Y, . . . , **Ware EB**, Dowden D, Cupples AL, Haiman C, Loos R, North K. Discovery and fine-mapping of adiposity loci using high density imputation of genome-wide association studies in individuals of African ancestry: African ancestry anthropometry genetics consortium. (*Plos Genetics*) 13(4), e1006719. doi:10.1371/journal.pgen.1006719. PMID: 28430825

Genomic Epidemiology Network of Arteriopathy analytic lead ("second author") in a consortium:

- He KY, Wang H, Cade BE, Nandakumar P, Giri A, **Ware EB**, Haessler J, Liang J, Smith JA, Franceschini N, Le TH, Kooperberg C, Edwards TL, Kardia SLR, Lin X, Chakravarti A, Redline S, Zhu X. Rare variants in Fox-1 Homolog A (RBFox1) are associated with lower blood pressure. (*Plos Genetics*) 13(3), e1006678. doi:10.1371/journal.pgen.1006678. PMID: 28346479
- Nandakumar P, Lee D, Richard MA, Tekola-Ayele F, Tayo BO, **Ware E**, Sung YJ, Salako B, Ogunniyi A, Gu CC, Grove ML, Fornage M, Kardia S, Rotimi C, Cooper RS, Morrison AC, Ehret G, Chakravarti A. Rare coding variants associated with blood pressure in 15,914 individuals of African ancestry. (*Journal of Hypertension*) 35(7), 1381-1389. doi:10.1097/HJH.0000000000001319. PMID: 28234671.

Co-author:

- Canales B, Smith JA, Weiner ID, **Ware EB**, Zhao W, Kardia SLR, Curhan GC, Turner ST, Perinpam M, Lieske JC. Polymorphisms in renal ammonia metabolism genes correlate with 24 hour urine pH. (*Kidney International Reports*) 2(6), 1111-1121. doi:10.1016/j.ekir.2017.06.009. PMID: 29270519
- Jhun MA, Smith JA, **Ware EB**, Kardia SLR, Mosley TH, Turner ST, Peyser PA, Park SK. Modeling the causal role of DNA methylation in the association between cigarette smoking and inflammation

in African Americans: A two-step epigenetic Mendelian randomization study. (*American Journal of Epidemiology*) 186(10), 1149-1158. doi:10.1093/aje/kwx181. PMID: 29149250

- Sofer T, Wong Q, Hartwig FP, Taylor K, Warren HR, Evangelou E, Cabrera CP, Levy D, Kramer H, Lange LA, Horta BL; **COGENT-BP consortium***, Kerr KF, Reiner AP, Franceschini N. Genome-Wide Association Study of Blood Pressure Traits by Hispanic/Latino Background: the Hispanic Community Health Study/Study of Latinos. (*Sci Rep*) 7(1), 10348. doi:10.1038/s41598-017-09019-1. PMID: 28871152
*Highlighted as a collaborator

2016

First, second, or senior author:

- **Ware EB**, Smith JA, Faul JD, Kardia SL. Abstract P091: Ethnic disparities in social and psychosocial factors modify the effect of genes on body mass index. (*Circulation*) 133(Suppl 1), AP091-AP091.
- **Ware EB**, Smith JA, Mukherjee B, Lee S, Kardia SL, Diez-Roux AV. Applying novel methods for assessing individual- and neighborhood-level social and psychosocial environment interactions with genetic factors in the prediction of depressive symptoms in the multi-ethnic study of atherosclerosis. (*Behav Genet*) 46(1), 89-99. doi:10.1007/s10519-015-9734-6. PMID: 26254610
- Perinpam M, **Ware EB**, Smith JA, Turner ST, Kardia SLR, Lieske JC. Key influence of sex on urine volume and osmolality. (*Biol Sex Differ*) 7, 12. doi:10.1186/s13293-016-0063-0. PMID: 26865949
- Smith JA, **Ware EB**, Zhao W, Faul JD, Kardia SL. Abstract P207: Gene-by-Psychosocial factor interactions on blood pressure in older non-Hispanic whites and African Americans: A genomic region-level analysis. (*Circulation*) 133(suppl_1), AP207-AP207.

Health and Retirement Study analytic lead ("second author") in a consortium:

- Joehanes R, Just AC, Marioni R, ..., **Ware EB**, et al. Epigenetic signatures of cigarette smoking. (*Circulation: Cardiovascular Genetics*) 9(5), 436-447. doi:10.1161/circgenetics.116.001506. PMID: 27651444
- Marioni RE, Ritchie SJ, Joshi PK, Hagenaars SP, Okbay A, et al ... (including **Ware EB**). Genetic variants linked to education predict longevity. (*Proc Natl Acad Sci U S A*) 113(47), 13366-13371. doi:10.1073/pnas.1605334113. PMID: 27799538
- Okbay A, Beauchamp JP, Fontana MA, Lee JJ, Pers TH, Rietveld CA, Turley P, et al (including **Ware EB**). Genome-wide association study identifies 74 loci associated with educational attainment. (*Circulation: Cardiovascular Genetics*) 9(5), 436-447. doi:10.1161/circgenetics.116.001506. PMID: 27225129

Co-author:

- Broadway KA, Cutler DJ, Duncan R, Moore JL, **Ware EB**, Jhun MA, Bielak LF, Zhao W, Smith JA, Peyser PA, Kardia SLR, Ghosh D, Epstein MP. A statistical approach for testing cross-phenotype effects of rare variants. (*American Journal of Human Genetics*) 98(3), 525-540. doi:10.1016/j.ajhg.2016.01.017. PMID: 26942286

- Lieske JC, Turner ST, Edeh SN, **Ware EB**, Kardia SL, Smith JA. Heritability of dietary traits that contribute to nephrolithiasis in a cohort of adult sibships. (*J Nephrol*) 29(1), 45-51. doi: 10.1007/s40620-015-0204-2. PMID: 25963767
- Stein M, Chen CY, Ursano R, ..., **Ware EB**, et al. Genome-wide association studies of Posttraumatic Stress Disorder in 2 cohorts of US Army Soldiers. (*JAMA Psychiatry*) 73(7), 695-704. doi:10.1001/jamapsychiatry.2016.0350. PMID: 27167565

2015

First, second, or senior author:

- **Ware EB**, Mukherjee B, Sun YV, Diez-Roux AV, Kardia SL, Smith JA. Comparative genome-wide association studies of a depressive symptom phenotype in a repeat measures setting by race/ethnicity in the Multi-Ethnic Study of Atherosclerosis. (*BMC Genetics*) 16(1), 118 doi:10.1186/s12863-015-0274-0. PMID: 26459564
- **Ware EB***, Riehle E*, Smith JA, Zhao W, Turner ST, Kardia SLR, Lieske JC. SLC2A9 genotype is associated with SLC2A9 gene expression and urinary uric acid concentration. (*PLoS One*) 10(7), e0128593. doi: 10.1371/journal.pone.0128593. PMID: 26167684
*Co-first authors
- Perinpan M, **Ware EB**, Smith JA, Turner ST, Kardia SLR, Lieske JC. Effect of Demographics on Excretion of Key Urinary Factors Related to Kidney Stone Risk. (*Urology*) 86(4):690-6. doi:10.1016/j.urology.2015.07.012. PMID: 26206452
- Smith JA, **Ware EB**, Middha P, Beacher L, Kardia SLR. Current applications of genetic risk scores to cardiovascular outcomes and subclinical phenotypes. (*Curr Epidemiol Rep*) 2(3), 180-190. doi:10.1007/s40471-015-0046-4. PMID: 26269782

Co-author:

- Epstein MP, Duncan R, **Ware EB**, et al. A Statistical Approach for Rare-Variant Association Testing in Affected Sibships. (*Am J Hum Genet*) doi: 10.1016/j.ajhg.2015.01.020. PMID: 25799106
- He Z, Payne EK, Mukherjee B, Lee S, Smith JA, **Ware EB**, Sanchez BN, Seeman TE, Kardia SL, Diez Roux AV. Association between Stress Response Genes and Features of Diurnal Cortisol Curves in the Multi-Ethnic Study of Atherosclerosis: A New Multi-Phenotype Approach for Gene-Based Association Tests. (*PLoS One*) 10 (5). PMID: 25993632
- 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 J, Zhao W, (...344 additional authors including **Ware EB**...), Wilson JF, for ROHGEN. Directional dominance on stature and cognition in diverse human populations. (*Nature*) doi: 10.1038/nature14618. PMID: 26131930
- Olfson E, Saccone LN, Johnson EO, Chen LS, Culverhouse R, Doheny K, (...including **Ware EB**). Rare, low frequency, and common coding variants in *CHRNA5* and their contribution to nicotine dependence in European and African Americans. (*Mol Psychiatry*) 21(5), 601. doi: 10.1038/mp.2015.105. PMID: 26239294

2013

- Hek K, Demirkan A, Lahti J, et al. (incl. **Bakshis E**). A Genome-wide Association Study of Depressive Symptoms. (*Biological Psychiatry*) 73(7):667-78. PMID: 23290196

2011

- Uddin M, de los Santos R, **Bakshis E**, Cheng C, Aiello AE. Building conditions, 5-HTTLPR genotype, and depressive symptoms in adolescent males and females. (*J Adolesc Health*) 49(4):379-85. PMID: 21939868

2010

- Uddin M, Koenen K, de los Santos R, **Bakshis E**, Aiello AE, Galea S. Gender differences in the genetic and environmental determinants of adolescent depression. (*Depression and Anxiety*) 27(7):658-66. doi:10.1002/da.20692. PMID: 20336806

2009

- Koenen KC, Aiello AE, **Bakshis E**, et al. County-level social environment modifies the association between serotonin transporter genotype and risk of post-traumatic stress disorder in adults. (*American Journal of Epidemiology*) 169(6): 704-711 PMID: 19228812

2008

- Ahern J, Jones MR, **Bakshis E**, Galea S. Revisiting Rose: Comparing the benefits and costs of population-wide and targeted interventions. (*Milbank Quarterly*) 86(4):581-600. URL: <http://hdl.handle.net/2027.42/61295> PMID: 19120981

Pre-prints

Note on preprint servers:

As open science becomes more prominent, and based in part on the speed of technological advances in genomics, posting preprints on engines such as arXiv, medRxiv, bioRxiv is particularly imperative to my work. While these are not formally peer-reviewed, they are indeed open to all scientists and often receive more critical, comprehensive, and diverse commentary and critiques than the traditional submission process. All manuscripts I have listed here are simultaneously under review in high impact journals such as the *American Journal of Epidemiology*, *PLoS One*, *Journal for Alzheimer's Disease*, and the *Annals of Applied Statistics*.

First, second, or senior author:

- **Ware EB**, Schmitz LL, Faul JD, Gard AM, Smith JA, Mitchell CM, Weir DR, Kardina SLR. (2017). Heterogeneity in polygenic scores for common human traits. (*BioRxiv*) <https://doi.org/10.1101/106062>
- **Ware EB**, Faul JD, Mitchell C, Bakulski KM. (2019). Considering the APOE locus in polygenic scores for Alzheimer's disease. (*medRxiv*), 2019.2012.2010.19014365. doi: <https://doi.org/10.1101/2019.12.10.19014365>
- Gard AM, **Ware EB**, Hyde LW, Schmitz L, Faul JD, Mitchell CM. (2018). Assessing the structure and specificity of polygenic scores for psychiatric outcomes in a population-based cohort of older adults. (*bioRxiv*) doi: <https://doi.org/10.1101/601609>
- Bakulski KM, Vadari HS, Faul JD, Heeringa SG, Kardina SLR, Langa KM, Smith JA, Manly JJ, Mitchell CM, Benke KS, **Ware EB**. (2020). A non-APOE polygenic score for Alzheimer's disease and APOE-ε4 have independent associations with dementia in the Health and Retirement Study (*medRxiv*). 2020.02.10.20021667; doi: <https://doi.org/10.1101/2020.02.10.20021667>

- **Fu M**, Faul JD, Jin Y, **Ware EB***, Bakulski KM*. (2019) Mendelian randomization of smoking behavior on cognitive status among older Americans. (*medRxiv*) 2019.12.11.19014522; doi: <https://doi.org/10.1101/2019.12.11.19014522>
*Authors contributed equally to this work
- **Fu M**, Bakulski KM, Higgins C, **Ware EB**. (2020). Mendelian randomization of dyslipidemia on cognitive impairment among older Americans. (*medRxiv*) 2020 doi: <https://doi.org/10.1101/2020.10.20.20216036>

Co-author:

- Middleton LYM, Dou JF, Fisher J, Heiss JA, Nguyen V, Just AC, Faul JD, **Ware EB**, Mitchell C*, Colacino JA*, Bakulski KM*. Saliva cell type DNA methylation reference panel for epidemiology studies in children. *medRxiv* doi: <https://doi.org/10.1101/2020.09.14.20191361>
- West BT, Little RJA, Andridge RR, Boonstra PS, **Ware EB**, Pandit A, Alvarado-Leiton F. (2020). Measures of Selection Bias in Regression Coefficients Estimated from Non-Probability Samples. *arXiv:2004.06139*
- Weiss J, Puterman E, Prather AA, **Ware EB**, Rehkopf DH. A data-driven prospective study of dementia among older adults in the United States. *arxiv:2006.13275*

Books and book chapters

- Gard AM, & **Ware EB**. (2021). Chapter 7 - Linking gene regions jointly with environment and depression. In C. R. Martin, L.-A. Hunter, V. B. Patel, V. R. Preedy, & R. Rajendram (Eds.), *The Neuroscience of Depression* (pp. 69-76). Academic Press. <https://doi.org/https://doi.org/10.1016/B978-0-12-817935-2.00003-9>
- **Ware EB**, & Faul JD. (2021). Chapter 4 - Genomic data measures and methods: a primer for social scientists. In K. F. Ferraro & D. Carr (Eds.), *Handbook of Aging and the Social Sciences (Ninth Edition)* (pp. 49-62). Academic Press. <https://doi.org/https://doi.org/10.1016/B978-0-12-815970-5.00004-8>
- Uddin M, **Bakshis EJ**, de los Santos R. (2012). Childhood maltreatment and county-level deprivation jointly moderate the relation between serotonin transporter promoter genotype and depressive symptoms in adolescent girls. In Mental Illness – Book 1. Rijeka, Croatia: *Intec-Open Access Publisher*.

Under review

- **Ware EB**, Schmitz LL, Faul JD, Gard A, Mitchell C, Smith JA, Zhao W, Weir D, Kardina SLR. Heterogeneity in polygenic scores for common human traits. *In review – Revise/Resubmit*.
- Mullins N, Kang J, Campos AI, ... **Ware EB**, ... Ruderfer DM. Dissecting the shared genetic architecture of suicide attempt, psychiatric disorders and known risk factors. *Biological Psychiatry*. *In review – Revise/Resubmit*.
- Fu M, Faul JD, Jin Y, Ware EB*, Bakulski KM*. Mendelian randomization of smoking behavior on cognitive status among older Americans. *In review*
- Stein MB, Jain S, Campbell-Sills L, **Ware EB**, Choi KW, He F, Ge T, Gelernter J, Smoller JW, Kessler RC, Ursano RJ. Polygenic risk for major depression is associated with lifetime suicide attempt in US soldiers independent of personal and parental history of major depression. *American Journal of Medical Genetics B: Psychiatric Genetics*. *In review*.

GRANTS

Current research is supported by the following funding sources:

R01 AG071071 Mitchell/Faul/Gaydosch (MPI's) 03/15/21 – 02/28/26
Biological Aging Across the Life Course: Harmonizing Cohort Biospecimen Archives
Role: Co-Investigator

R01 AG067592 Bakulski & Ware (MPI's) 09/01/20 - 08/31/25
DNA Methylation, Genetics, and Modifiable Risk Factors of Dementia in a Nationally Representative, Multi-Ethnic Cohort
Role: MPI

R01 HD099135 (NIH/NICHD) Axinn (PI) 06/15/20 – 02/28/25
Intergenerational Influences on Marriage, Divorce, Contraception and Childbearing
Role: Co-Investigator

U24 AG058556 (NIH/NIA) Kritchevsky (PI) 04/01/20-03/31/21
Examining Sex Differences in Pleiotropic Effects for Depression and Alzheimer's Disease Across the Life Course (Pilot)
Role: pilot Principal Investigator

R01 AA026687 (NIH/NIAAA) Birditt (PI) 09/20/19-08/31/22
Alcohol consumption and cardiovascular health among older couples: The roles of genetics and marital quality
Role: Co-Investigator

R25 AG053227-04S1 (NIH/NIA) Faul, Kardia, Mitchell (MPI's) 09/01/19–04/30/21
Genomic Analysis for Social-Behavioral Scientists - Administrative Supplement
Role: Co-Investigator, Lab instructor

R01 HD076592 (NIH/NICHD) Notterman and Mitchell (MPI's) 05/01/19-04/30/24
Biological and social mediators of child wellbeing among ethnic groups in Fragile Families
Role: Co-Investigator

R01 MD011716 (NIH/NIMHD) Mitchell (PI) 08/01/18-05/31/22
Epigenetic Mediation of Adverse Social Context on Stress Response, Socioemotional Development, and Health in a Population-based Study of Minority and Low SES Children and Adolescents
Role: Co-Investigator

R01 MD011716-S1 (NIH/NIMHD) Mitchell (PI) 08/01/18-05/31/22
Epigenetic Mediation of Adverse Social Context on Stress Response, Socioemotional Development, and Health in a Population-based Study of Minority and Low SES Children and Adolescents - Supplement
Role: Co-Investigator

R01 AG055406 (NIH/NIA) Ware & Bakulski (MPI's) 09/01/17 – 05/31/21
Characterizing disparities in late-onset Alzheimer's disease risk through polygenic risk and epidemiologic factors in the Health and Retirement Survey
Role: MPI

U01 AG009740 (NIH/NIA) Weir (PI) 09/13/17-05/31/21
Health and Retirement Study Yrs 29-34
Role: Collaborator

RF1 AG055654 (NIH/NIA) Galama & Faul (MPI's) 09/15/17–06/30/22
Identifying modifiable aspects of gene-by-SES and gene-by-work interplay in later-life cognitive decline
Role: Co-Investigator

R25 AG053227 (NIH/NIA) Faul/Kardia/Mitchell (MPI's) 09/15/16 – 04/30/21
Genomic Analysis for Social-Behavioral Scientists
Role: Co-Investigator, Lab instructor

Previous research was supported by the following grants:

P30 ES017885 (NIH/NIEHS) Richardson (PI) 04/01/18-03/31/19
Pilot Award Mitchell (PI)
Cell type reference for saliva DNA methylation studies in children for environmental epidemiology
Role: Pilot Co-Investigator

P30 AG012846 (NIH/NIA) Bound (PI) 07/01/16 – 06/30/18
Michigan Center on the Demography of Aging Pilot Grant
Pilot Award Ware & Schmitz (MPI's)
Demographic and socioeconomic differences in polygenic risk of cardiovascular health in the Health and Retirement Study
Role: Pilot MPI

U01 AG009740 (NIH/NIA) Weir (PI) 01/01/98-12/31/17
Health and Retirement Study Yrs 23-28
Role: Collaborator

BioSocial Methods Collaborative (University of Michigan Provost Funds) 01/01/13-12/31/18
Gonzalez (Director)
Role: Research Investigator

R01 HL133221 (NIA/NHLBI) Smith (PI) 07/01/16 – 06/30/20
Epigenetics of Arteriosclerosis in African American Hypertensive Sibships
Role: Research Investigator

R01 HL119443 (NIH/NHLBI) Kardia (PI) 09/01/14 - 08/31/18
Genetic Mechanisms of Arteriosclerosis in Hypertensive Sibships
Role: Research Investigator

1U01MH08798101 (NIH/NIMHD) Heeringa (PI) 07/16/09 – 06/30/15
Modifiable Risk and Protective Factors for Suicidal Behaviors in the US Army
Role: Research Investigator

R03 AG046389 (NIH/NIA) Kardia (PI) 09/30/13 – 08/31/15
Genetic and Psychosocial Predictors of Blood Pressure and Body Mass Index
Role: Key Personnel Research Investigator

R01 HL086694 (NIH/NHLBI)	Chakravarti (PI) Kardia (PI of UM subcontract)	08/05/11 – 5/30/15
Genome-Wide Association Analysis in Essential Hypertension		
Role: Staff scientist		
R01 HL101161 (NIH/NHLBI)	Diez Roux (PI)	06/15/10 – 6/30/15
Stress, Gene-Environment Interaction and Cardiovascular Disease		
Role: Graduate Student Research Assistant		
N012549-399788 RWJF	Bakshis (Ware) (pilot PI)	05/15/10-08/31/10
Gene X social environment interactions and depressive symptom scores		
Role: Pilot PI		

AWARDS AND HONORS

2017-2019 *National Institutes of Health Loan Repayment Awardee – Health Disparities*
2016 *A. Regula Herzog Young Investigator Award, Institute for Social Research*
2016 *Fragile Families Data Workshop Selectee, Princeton University and Columbia University*
2016 *MiCDA Small grant awardee, University of Michigan*
2015 *Michigan Road Scholar, University of Michigan*
2013 *Michigan SAS Users Group Student Scholarship*
2012 *SAS Global Forum Student Scholarship Award*
2011 *Michigan SAS Users Group Student Scholarship*
2010-2011 *Robert Wood Johnson Foundation Health & Society Scholars Grant Winner*
2010 *Dolores Zohrab Liebmann Fellowship, National Competition, Finalist*
2009 *Shapiro/Malik Award, University of Michigan*
2009-2010 *Elected PhD Student Representative to the Admissions Committee, Department of Epidemiology, University of Michigan*
2009 *Rackham Travel Grant, University of Michigan*
2009 *Epidemiology Travel Block Grant, University of Michigan*
2003-2006 *Northern Michigan University Scholars Award*
2003-2006 *National Academic Award, Northern Michigan University*
2005-2006 *Mary L. Campbell Scholarship Winner, Northern Michigan University*
2005 *Honors Program Leadership Award, Northern Michigan University*
2003-2006 *Dean's list, Northern Michigan University, 8 Semesters*

PRESENTATIONS

- Mitchell CM, Fisher JD, Faul JD, **Ware EB**, Schneper L, Dou J, Bakulski KM, Notterman D. Longitudinal Assessment of Methylation Profiles in a Multiethnic Population of Children and Adolescents. Session: Biomarker Applications to Population Health Research. Population Association of America annual conference. May 5-8, 2021. Virtual.
- West BT, Little RJA, Andridge RR, Boonstra P, **Ware EB**, Pandit A, Alvarado-Leiton F. Measures of Selection Bias in Regression Coefficients Estimated from Non-Probability Samples. JSM. Survey Research Methods Section. Seattle, WA. Aug 7-12, 2021.
- Middleton LYM, Dou JF, Fisher J, Heiss JA, Nguyen V, Just AC, Faul JD, **Ware EB**, Mitchell C, Colacino JA, Bakulski KM. 2021. Saliva cell type DNA methylation reference panel for epidemiology studies in children. Great Lakes Pediatric Research Day. April 1, 2021. Virtual oral presentation.

***Awarded top trainee talk

- Middleton LYM, Dou JF, Fisher J, Heiss JA, Nguyen V, Just AC, Faul JD, **Ware EB**, Mitchell C, Colacino JA, Bakulski KM. Saliva cell type DNA methylation reference panel for epidemiology studies in children. Epigenomics of Common Disease (ECD) meeting. Hinxton, United Kingdom. November 20, 2020. Virtual lightning presentation.
- Hickman R, Bakulski KM, Brandt DJ, Faul JD, **Ware EB**. Higher self-rated physical work demands are associated with poorer cognition in the Health and Retirement Study. University of Michigan Department of Epidemiology Capstone Symposium. Ann Arbor, MI. November 5, 2020. Poster Presentation.
- Zhang L, Bakulski KM, **Ware EB**. The Association Between Blood Pressure and Dementia: Mendelian Randomization in the Health and Retirement Study. University of Michigan Department of Epidemiology Capstone Symposium. Ann Arbor, MI. November 5, 2020. Poster Presentation.
- Schrank MJ, **Ware EB**, Middleton L, Bakulski KM. Are Environmental Chemical Concentrations Associated with Mild Cognitive Impairment in the National Health and Nutrition Examination Survey (NHANES)? University of Michigan Department of Epidemiology Virtual Poster Session. Ann Arbor, MI. November 6, 2020. Poster Presentation.
- **Ware EB**, Fu M, Gard AM, Schmitz LL, Bakulski KM. Cognition, Depression, and Genetics: Examining Sex Differences Using Polygenic and Genetic Inference Techniques. Gerontological Society of America. Philadelphia, PA, Nov 4-6, 2020. [VIRTUAL DUE TO COVID-19]
- **Ware EB**, Gard AM, Fu M, Schmitz LL, Bakulski KM. Fostering Multi-Disciplinary Solutions in Aging: The Research Centers Collaborative Network. Sex Differences in Genetic Effects Using Two Gene Aggregation Techniques: Depression and Cognition. Gerontological Society of America. Philadelphia, PA, Nov 4-6, 2020. [VIRTUAL DUE TO COVID-19]
- West BT, Little RJA, Andridge RR, Boonstra P, **Ware EB**, Pandit A, Alvarado-Leiton F. Measures of Selection Bias in Regression Coefficients Estimated from Non-Probability Samples. BigSurv20. Utrecht, Netherlands. Nov 4-6, 2020. [VIRTUAL DUE TO COVID-19]
- Morataya C, **Ware EB**, Fu M, Bakulski KM. Type 2 diabetes and dementia in the Health and Retirement Study: A Mendelian randomization approach. World Non-Communicable Disease Congress 2020. Ann Arbor, MI. Aug 1-6, 2020. [POSTPONED DUE TO COVID-19]
- **Ware EB**, Morataya C, Fu M, Bakulski KM. Type 2 diabetes and dementia in the Health and Retirement Study: A Mendelian randomization approach. Alzheimer's Association International Conference. Amsterdam, Netherlands. July 27-31, 2020. [VIRTUAL DUE TO COVID-19]
- Bakulski KM, Fu M, Faul JD, Jin Y, **Ware EB**. Mendelian randomization of smoking behavior on cognitive status among older Americans. Alzheimer's Association International Conference. Amsterdam, Netherlands. July 27-31, 2020. [VIRTUAL DUE TO COVID-19]
- Faul JD, **Ware EB**, Kabeto MU, Langa KM, Llewellyn DJ, Galama T. Lifestyle and genetic risk: Revisiting the association with incident dementia. Alzheimer's Association International Conference. Amsterdam, Netherlands. July 27-31, 2020. [VIRTUAL DUE TO COVID-19]
- West BT, Little RJA, Andridge RR, Boonstra P, **Ware EB**, Pandit A, Alvarado-Leiton F. Measures of Selection Bias in Regression Coefficients Estimated from Non-Probability Samples. American Association for Public Opinion Research. Atlanta, GA. May 14-17, 2020. [POSTPONED DUE TO COVID-19]

- **Ware EB**, Fisher J, Faul JD, Mitchell CM. Defining analytic genetic ancestry: using approaches from machine learning. Biomarker Network Meeting - Population Association of America. Washington DC. April 22, 2019 [POSTPONED DUE TO COVID-19]
- Mitchell CM, **Ware EB**, Fisher JD, Bakulski KM, Dou J, Faul JD, Schneper L, Notterman D. Longitudinal DNA Methylation Change in a Multi-ethnic Cohort. Epigenetics Biomarker Network Meeting - Population Association of America. Washington DC. April 21, 2020. [VIRTUAL DUE TO COVID-19]
- Benbow MD, Bakulski KM, **Ware EB**. Association between neighborhood characteristics and polygenic score on dementia in the Health and Retirement Study. University of Michigan Department of Epidemiology Capstone Symposium. Ann Arbor, MI. November 6, 2019. Poster Presentation.
- Tournat T, Bakulski KM, **Ware EB**. A Mendelian randomization framework for testing the causality between depressive symptom genetics, depressive symptoms, and dementia in the Health and Retirement Study. University of Michigan Department of Epidemiology Capstone Symposium. Ann Arbor, MI. November 6, 2019. Poster Presentation.
- Morataya C, Bakulski KM, **Ware EB**. Type 2 diabetes and dementia in the Health and Retirement Study: A Mendelian randomization approach. University of Michigan Department of Epidemiology Capstone Symposium. Ann Arbor, MI. November 6, 2019. Poster Presentation.
- Fu M, Bakulski KM, **Ware EB**. Smoking Behavior and Cumulative Genetic Risk for Smoking on Cognitive Status among Older Americans. Presentation at the Big Data Neuroscience Workshop | Advanced Computational Neuroscience Network (ACNN). Ann Arbor, MI. September 19-20, 2019
- **Ware EB**, Stein MB, Mitchell CM, Chen CY, Smoller JW. Genome Wide Association Studies of Suicide Attempts in US Soldiers. Paper presentation at the Joint Statistical Meeting | American Statistical Association. Denver, CO. July 27-August 1, 2019.
- **Ware EB**, Faul JD, Mitchell CM. Investigating Array Effects in Polygenic Score Creation for Use in the Social Sciences. Paper presentation at the European Survey Research Association meeting. Zagreb, Croatia. July 15-19, 2019.
- *Woods AD, Gard AM, **Ware EB**, Notterman D, Mitchell CM. Using polygenic scores for educational attainment to probe genetic effects on schooling outcomes among fragile families. Paper Presentation. Population Association of America annual meeting. Austin, TX. April 10-13, 2019.
- ***Ware EB**. Session 142 Genes and Health - Using Polygenic Scores. Discussant. Population Association of America annual meeting, Austin, TX. April 10-13, 2019.
- *Schmitz LL, Gard AM, **Ware EB**. Examining Sex Differences in Pleiotropic Effects for Depression and Smoking Using Polygenic and Gene-Region Aggregation Techniques. Paper presentation at the NIA sponsored Biomarker Network meeting, Austin, TX. April 10, 2019.
- *Woods AD, Gard AM, **Ware EB**, Notterman D, Mitchell CM. Using Polygenic Scores for Educational Attainment to Probe Genetic Effects on Schooling through Adolescence. Society for Research on Child Development Biennial meeting. Baltimore, MD. March 21-23, 2019.
- *Gard AM, **Ware EB**, Hyde L, Schmitz LL, Faul JD, Notterman D, Mitchell CM. Assessing the Phenotypic and Genetic Structure of Psychopathology Across the Life Course. Society for Research on Child Development Biennial meeting. Baltimore, MD. March 21-23, 2019.

- *Gaydos L, Harris KM, Mitchell CM, Schmitz LL, **Ware EB**, Faul JD, McLanahan S, Notterman D. Polygenic Penetrance on Life Course BMI Across Cohorts. Society for Research on Child Development Biennial meeting. Baltimore, MD. March 21-23, 2019.
- ***Ware EB**. Calculating Polygenic Scores: Important methodological questions and replication. Population, Neurodevelopment, and Genetics meeting. Ann Arbor, MI. December 14, 2018.
- ***Ware EB**, Vadari H, Bakulski KM. Polygenic risk for Alzheimer's disease and early life head injury on risk of dementia in the Health and Retirement Study. Advances in Health and Aging Research Across the Translational Spectrum. Ann Arbor, MI. October 30, 2018. Poster presentation.
- *Faul JD, **Ware EB**. From GWAS to pathway enrichment: Exploring Gene Ontology as a tool to create biologically-informed genetic scores for trans-ethnic analyses. Integrating Genetics in the Social Sciences. Boulder, CO. October 11-13, 2018.
- *Gregoire A, **Ware EB**, Bakulski KM. Applying genome-wide association study methodology to environmental toxicants and depressive phenotypes. Integrating Genetics in the Social Sciences. Boulder, CO. October 11-13, 2018.
- ***Ware EB**, Faul JD, Mitchell CM. Investigating array effects in polygenic score creation for use in the social sciences. Integrating Genetics in the Social Sciences. Boulder, CO. October 11-13, 2018.
- *Vadari H, Bakulski KM, Faul JD, Mitchell CM, **Ware EB**. Early life head injury and genetic contributions to adolescent cognitive development and later life cognition. Integrating Genetics in the Social Sciences. Boulder, CO. October 11-13, 2018.
- Bakulski K. (in collaboration with **Ware EB**). Measuring the Impact of Chemical Pollutants on the Brain Across the Lifespan. Alzheimer's Association International Conference. Alzheimer's Association. July 23, 2018.
- Bakulski K. (in collaboration with **Ware EB**). Measuring the Impact of Chemical Pollutants on the Brain Across the Lifespan. Alzheimer's Disease Summit. National Institute of Aging. Bethesda, MD. May 24, 2018. Invited talk.
- **Ware EB**. Connecting genomics, social science, and health: Applying novel methods to gene-environment interactions on depressive symptoms. Ann Arbor, MI, May 3, 2018. Research Seminar.
- *Mitchell CM. (in collaboration with **Ware EB**, Schneper L, Notterman, D). Application of Late Life Cognition Genes to Early Life Cognitive Development, Population Association of America Biomarker Network meeting, April 25, 2018. Denver, CO. Oral presentation.
- *Faul JD, **Ware EB**. Moving Beyond European Only Genetic Association. Eastern Sociological Society, Baltimore MD, February 22-24, 2018. Invited talk.
- *Vadari H, **Ware EB**, Bakulski KM. Polygenic risk for Alzheimer's disease and early life head injury on risk of dementia in the Health and Retirement Study. Advances in Health and Aging Research Across the Translational Spectrum. Ann Arbor, MI. November 29, 2017. Poster presentation.
- Vadari H, **Ware EB**, Bakulski KM. Polygenic risk for Alzheimer's disease and early life head injury on risk of dementia in the Health and Retirement Study. University of Michigan Department of Epidemiology Capstone Symposium. Ann Arbor, MI. November 11, 2017. Poster Presentation.
- *Faul JD, **Ware EB**. Moving Beyond European Only Genetic Associations — An Examination of Within and Trans-Racial PGS and Gene-Region Associations. Integrating Genetics and Social Sciences Conference, Boulder, CO, October 19-21, 2017.

- *Gard AM, Schmitz LL, **Ware EB**, Faul JD, & Mitchell CM. Gene x environmental interaction models of latent psychopathology across the lifespan. Integrating Genetics and Social Sciences Conference, Boulder, CO, October 19-21, 2017.
- *Gaydosh L, Mullan-Harris K, Mitchell C, Schmitz LL, **Ware EB**, Faul JD. Childhood socioeconomic status and BMI across the lifecourse. Integrating Genetics and Social Sciences Conference, Boulder, CO, October 19-21, 2017.
- *Schmitz LL, Gard AM, **Ware EB**. The Impact of Cigarette Taxation and Polygenic Risk for Smoking on Smoking Behavior in the 20th and 21st Century. Integrating Genetics and Social Sciences Conference, Boulder, CO, October 19-21, 2017.
- *Vadari H, **Ware EB**, Bakulski KM. Polygenic risk for Alzheimer's disease and early life head injury on risk of dementia in the Health and Retirement Study. UM Developmental Origins of Metabolic Syndrome Symposia. Ann Arbor, MI. October 9, 2017. *Poster presentation.*
- ***Ware EB**, Schmitz LL, Faul JD, Gard AM, Mitchell CM, Smith JA, Zhao W. Heterogeneity in polygenic scores for common human traits in a Population-based cohort, Lisbon, Portugal, July 17-21, 2017. European Survey Research Association.
- ***Ware EB**, Schmitz LL, Faul JD, Gard AM, Mitchell CM, Smith JA, Zhao W. Implications of polygenic scores' estimation methods on gene-by-environment interaction analyses, Seattle, WA, June 20-23, 2017. Society for Epidemiological Research.
- *Liu J, Zhao W, **Ware EB**, Kardia SLR, Turner ST, Mosley TH, Smith JA. DNA methylation in APOE is associated with cognitive function in African Americans, Seattle, WA, June 20-23, 2017. Society for Epidemiological Research.
- ***Ware EB**, Schmitz LL, Faul JD, Gard AM, Mitchell CM, Smith JA, Zhao W. Methods of measurement: Implications of polygenic scores' estimation methods on gene-by-environment interaction analyses, Chicago, IL, April 26-28, 2017. Population Association of America.
- *Schmitz LL, Gard AM, **Ware EB**. Genetic and Social Contributions to Gender-Cohort Differences in Smoking Behavior. Population Association of America. Chicago, IL, April 26-28, 2017.
- *He KY, Wang H, Cade BE, Nandakumar P, Giri A, **Ware EB**, Haessler J, Liang J, Smith JA, Franceschini N, Kooperberg C, Edwards TL, Kardia SLR, Lin X, Chakravarti A, Redline S, Zhu X. Rare variants in Fox-1 homolog A (RBFox1) are protectively associated with blood pressure. American Society of Human Genetics Annual Meeting, Vancouver, Canada, October 18-22, 2016.
- *Smith JA, Faul JD, Zhao W, Kho M, Hillman TJ, **Ware EB**, Mitchell C. Gene-based association and gene-by-education interaction on episodic memory in the Health and Retirement Study. Integrating Genetics and Social Sciences Conference, Boulder, CO, October 21-22, 2016.
- *Zhao W, **Ware EB**, Smith JA, Faul JD, Kardia SLR. Social and psychosocial factors modify the effect of genetic variants on body mass index: A gene environment interaction analysis in a longitudinal setting. Integrating Genetics and Social Sciences Conference, Boulder, CO, October 21-22, 2016.
- *Nandakumar P, Lee D, Richard MA, Tekola-Ayele F, Tayo B, **Ware EB**, Sung YJ, Salako B, Ogunniyi A, Gu CC, Grove ML, Fornage M, Kardia S, Rotimi C, Cooper R, Morrison A, Ehret G, Chakravarti A. Rare coding variants associated with blood pressure in 15914 individuals of African Ancestry. American Society of Human Genetics Annual Meeting, Vancouver, Canada, October 18-22, 2016.

- ***Ware EB**, Schmitz LL, Faul JD, Smith JA, Mitchell CM, Weir DR, Kardia SLR. Establishing best practices: generating polygenic scores in a population-representative cohort – Integrating Genetics in the Social Sciences, *Presenter/Panelist*. Denver, CO. October 21-23, 2016.
- Lieske JC, Perinpam M, **Ware EB**, Smith JA, Turner ST, Kardia SL. Higher blood glucose is associated with higher urine citrate excretion. 13th Annual Symposium on Urolithiasis, Makuhari, Japan, July 19-22, 2016.
- ***Ware EB**, Smith JA, Faul J, Kardia SLR. Ethnic disparities in social and psychosocial factors modify the effect of genes on body mass index. American Heart Association – EPILifestyles. Poster Presentation. Phoenix, AZ. March 1-4, 2016.
- *Smith JA, **Ware EB**, Zhao W, Faul JD, Weir DR, Kardia SLR. The effect of gene-by-social factor interactions on blood pressure in older non-Hispanic whites and African Americans: a genomic region-level analysis. American Heart Association – EPILifestyles. Poster Presentation. Phoenix, AZ. March 1-4, 2016.
- *Brown K, Kardia SLR, Diez-Roux AV, Liu Y, Smith JA, Needham B, Cole S, Mukherjee B, **Ware EB**, Seeman T. Getting “under the skin”: Human social genomics in the Multi-Ethnic Study of Atherosclerosis. Society for Epidemiological Research. Poster Presentation. Miami, FL, USA. June 21-24, 2016.
- *Kho MJ, Smith JA, Zhao W, **Ware EB**, Kardia SLR. Genome-wide meta-analysis of sodium intake and salty taste preference in multi-ancestry cohorts. University of Michigan Doctoral Day. Oral Presentation. Ann Arbor, MI. January 29, 2016.
- *Perinpam M, **Ware EB**, Smith JA, Turner ST, Kardia SLR, Lieske JC. Independent effect of blood glucose level on urinary citrate and pH. American Society of Nephrology Kidney Week 2015 Annual Meeting. Poster Presentation. San Diego, CA, USA. November 6, 2015.
- *Perinpam M, **Ware EB**, Smith JA, Turner ST, Kardia SLR, Lieske JC. Key influence of sex on urine volume and osmolality. American Society of Nephrology Kidney Week 2015 Annual Meeting. Poster Presentation. San Diego, CA, USA. November 6, 2015.
- *Epstein MP, Broadway A, Cutler D, Duncan R, Moore JL, **Ware EB**, Jhun MA, Bielak LF, Zhao W, Smith JA, Peyser PA, Kardia SLR. A statistical approach for testing pleiotropic effects of rare variants. Poster presentation. American Society of Human Genetics Annual Meeting, Baltimore, MD, October 6-10, 2015.
- Mitchell CM, **Ware EB**, Heeringa S, Little R. What is a representative genome? The challenges and benefits of applying complex survey weights to genome-wide data. European Survey Research Association, Reykjavik, Iceland, July 14-17, 2015.
- *Joshi PK, Esko T, Mattsson H, Eklund N, Gandin I, Jackson AU, Nutile T, Shurmann C, Polasek O, Wilson JF, ROHgen Consortium (**including Ware EB**). Evidence for directional dominance on complex traits relating to size and cognition in a wide range of human populations. Poster Presentation. European Human Genetics Conference. Glasgow, Scotland, UK. June 6-9, 2015.
- *Joshi PK, Esko T, Mattsson H, Eklund N, Gandin I, Jackson AU, Nutile T, Shurmann C, Polasek O, Wilson JF, ROHgen Consortium (**including Ware EB**). Evidence for inbreeding depression on complex traits related to size and cognition in a wide range of human populations. Poster Presentation. American Society of Human Genetics Annual Meeting. San Diego, CA. October 18-22, 2014.

- *Epstein MP, **Ware EB**, Jhun MA, Bielak LF, Zhao W, Smith J, Peyser PA, Kardina SLR, Satten GA. Statistical approaches for rare-variant association testing in affected sibships. Platform Presentation. American Society of Human Genetics Annual Meeting. San Diego, CA. October 18-22, 2014.
- *Schrager JN, **Ware EB**, Smith JA, Zhao W, Kardina SLR. RE-1 silencing transcription factor gene variation and gene expression in the Genetic Epidemiology Network of Arteriopathy study. Poster Presentation. University of Michigan School of Public Health Masters Student Poster Day. Ann Arbor, MI. October 17, 2014.
- ***Ware, EB**. Genes, the environment, and depressive symptom scores in the Multi-Ethnic Study of Atherosclerosis. Dissertation Defense. Ann Arbor, Michigan. November 2013.
- *Uddin, M, Koenen KC, de los Santos R, **Bakshis E**, Aiello AE, Galea S. Gender differences in the genetic and environmental determinants of adolescent depression. Poster Presentation. 100th Annual American PsychoPathological Association. New York, New York. **March 2010**.
- ***Bakshis, E**, Koenen KC, Aiello AE, Amstadter AB, Ruggiero KJ, Acierno R, Kilpatrick DG, Gelernter J, Galea S. County-level social environment modifies the association between serotonin transporter genotype and risk of post-traumatic stress disorder in adults. Poster Presentation. 42nd Annual SER Meeting. Anaheim, California. **June 2009**.
- Uddin, M, Koenen KC, de los Santos R, **Bakshis E**, Aiello AE, Galea S. County-level infant death deprivation, 5-HTTLPR genotype, and depressive symptoms in adolescent males and females. Oral Presentation. 42nd Annual SER Meeting. Anaheim, California. **June 2009**.
- Uddin, M, Koenen KC, de los Santos R, **Bakshis E**, Aiello AE, Galea S. Social Environment Modifies the Relation Between 5-HTTLPR Genotype And Adolescent Depression: A Multilevel Instrumental Variable Analytic Approach. Poster Presentation. 42nd Annual SER Meeting. Anaheim, California. **June 2009**.
- *Galea S, Koenen K, Aiello A, **Bakshis E**, Uddin M. The joint influence of genetic and social factors on population health: examples from psychiatric epidemiology. Invited lecture. American Epidemiological Society. Seattle, WA. **March 2009**.
- ***Bakshis, E**. Karestan C. Koenen, Allison E. Aiello, Ananda B. Amstadter, Kenneth J. Ruggiero, Ron Acierno, Dean G. Kilpatrick, Joel Gelernter, Sandro Galea. County-level social environment modifies the association between serotonin transporter genotype and risk of post-traumatic stress disorder in adults. Poster Presentation. University of Michigan School of Public Health Doctoral Day, Ann Arbor, MI. **February 2009**.
- ***Bakshis E**, Koenen KC, Aiello AE, Amstadter AB, Ruggiero KJ, Acierno R, Kilpatrick DG, Gelernter J, Galea S. County-level social environment modifies the association between serotonin transporter genotype and risk of post-traumatic stress disorder in adults. Oral Presentation. University of Michigan School of Public Health Center for Social Epidemiology and Population Health Research Seminar, Ann Arbor, MI. **December 2008**.
- ***Bakshis E**, Koenen KC, Aiello AE, Amstadter AB, Ruggiero KJ, Acierno R, Kilpatrick DG, Gelernter J, Galea S. County-level social environment modifies the association between serotonin transporter genotype and risk of post-traumatic stress disorder in adults. Poster Presentation. University of Michigan School of Public Health 18th Annual Poster Session, Ann Arbor, MI. **October 2008**.

- ***Bakshis E**, Kaplan G, Galea S. Complex Systems Approach to Population Health: Agent Based Modeling of Cardiovascular Disease. Poster Presentation. University of Michigan School of Public Health 17th Annual Poster Session, Ann Arbor, MI. **October 2007**.

INVITED TALKS

- March 2021* **Invited lecturer (Sociogenomics and polygenic scores)**
University of Michigan, Institute for Social Research, Population Dynamics and Health Program Workshop Series. March 16, 2021
- January 2021* **Invited lecturer, recorded (Online resources for epigenomics)**
University of Michigan, Institute for Social Research, Genomics for Social Scientists (R25, PI: Mitchell/Faul/Kardia) Epigenetics

TEACHING AND MENTORING

- Winter 2021* **Lab Instructor**
University of Michigan, Institute for Social Research, Genomics for Social Scientists (R25, PI: Mitchell/Faul/Kardia) Epigenetics
 Lab instructor, 30 professional/graduate students/professors/scientists
- Winter 2020* **Lead Lab Instructor Virtual**
University of Michigan, Institute for Social Research, Genomics for Social Scientists (R25, PI: Mitchell/Faul/Kardia)
 Lab instructor, 30 professional/graduate students/professors/scientists
- Fall 2019* **Instructor**
University of Michigan, School of Information, University of Michigan Math Methods for Data Scientists course for online Master's program
 145 professional/graduate students in an online program
- Summer 2019* **Course Developer**
University of Michigan, School of Information, University of Michigan Develop Math Methods for Data Scientists course for online Master's program, four week one credit course
- Summers 2017 – 2019* **Lead Lab Instructor**
University of Michigan, Institute for Social Research, Genomics for Social Scientists (R25, PI: Mitchell/Faul/Kardia)
 Lab instructor, 30 professional/graduate students/professors/scientists
- Summer 2017* **Instructor**
University of Michigan, Department of Epidemiology, Summer Session EPID 759 – Introduction to SAS
 6 professional/graduate students
- Winter 2016 – Summer 2018* **Part-time Teaching Faculty**
Wayne State University, School of Medicine,
 FPH7350 – Programming for the Public Health Professional, Detroit, MI
 Three courses of ~20 graduate students; three semesters
 FPH7240 – Introductory Epidemiology, Detroit, MI

One course of ~80 graduate students; one semester; flipped classroom

Winter 2013 –
Summer 2016

Instructor

Washtenaw Community College, Department of Mathematics,
MTH160 – Basic Statistics, Ann Arbor, MI

Dean: Kris Good

16 classes of ~30 undergraduate students; twelve total semesters

Fall 2012
Fall 2013

Instructor of Record

University of Michigan, School of Information, SI544 - Introduction to
statistics and data management, Ann Arbor, MI

One course of ~80 graduate students; two semesters

2007 – 2015

Individual Private Tutor

University of Michigan, Statistics courses, Ann Arbor, MI

Tutoring introductory statistics courses, primarily for non-traditional
students and students with learning disabilities

Approximately 100 individual students over eight years

Summer 2012

Graduate Student Instructor

University of Michigan, Department of Epidemiology, Summer session,
EPID 759 - Introduction to SAS; EPID 791 - Intermediate SAS, Ann
Arbor, MI

Instructor: Kathy Welch

~15 professionals/graduate students

Fall 2011

Graduate Student Instructor

University of Michigan, School of Information,

SI544 - Introduction to statistics and data management, Ann Arbor, MI

Instructor: Dr. Qiaozhu Mei

One course of ~80 graduate students; one semester

Winter 2011
Winter 2012
Winter 2013

Graduate Student Instructor

University of Michigan, Department of Epidemiology,

EPID640 - Introduction to SAS programming, Ann Arbor, MI

Instructor: Dr. Sara Adar

Two labs of 26 graduate/medical students, three semesters

Summer, 2010

Graduate Student Instructional Aide

University of Michigan, Epidemiology Summer Institute,

EPID 759 – Introduction to SAS programming, Ann Arbor, MI

Instructor: Kathy Welch

~15 professionals/graduate students

Winter 2010
Spring 2010

Graduate Student Instructor

University of Michigan, Department of Statistics, STAT350 – Introduction
to statistics and data analysis, Ann Arbor, MI

Instructor: Drs. Brenda Gunderson, Tom Venable

Three labs of 30 undergraduate students; over two semesters

Formal Mentoring

Ph.D. level

2020- César Higgins, Ph.D. candidate (University of Michigan), Committee member

2019/2020 Katherine Brieger, M.D. (student) /Ph.D. (University of Michigan), Committee member

Master's level

2020/2021 Ruby Hickman, M.P.H. (University of Michigan)
 2021 Elizabeth Macdonald, M.P.H. (University of Michigan)
 2020/2021 Lichi Zhang, M.P.H. (University of Michigan)
 2019/2020 Mikayla Benbow, M.P.H. (University of Michigan)
 2019/2020 Ana Cristina Morataya Bustamante, M.D., M.P.H. (University of Michigan)
 2019/2020 Troy Tournat, M.P.H. (University of Michigan)
 2018/2019 Daniel Brandt, M.P.H. (University of Michigan)
 2017 Ameen Masoodi, M.P.H. (Wayne State University)

Informal Mentoring

Post-Doc level

2019-2020 Asta Breinholt, Ph.D (University of Copenhagen, Post-Doc at University of Michigan)
 2019-2020 Arianna Gard, Ph.D. (University of Michigan, Post-Doc at University of Michigan)
 2019-2020 Lauren Brown, Ph.D. (University of Southern California, Post-Doc at University of Michigan)
 2018 Olesya Ajnakina, Ph.D. (Kings College London, Post-Doc at University College London)
 2016-2019 Lauren Schmitz, Ph.D (The New School, Post-Doc at University of Michigan)

Ph.D. level

2017-2019 Arianna Gard, Ph.D. (University of Michigan)
 2017/2018 MJ Kho, Ph.D. (University of Michigan)
 2017 David Braudt, Ph.D. (University of North Carolina, Chapel Hill)
 2014-2017 Kristen Brown, Ph.D. (University of Michigan)
 2014 Neha Sheth, PharmD, Ph.D (University of Michigan)
 2014 Paul Christine, M.D./Ph.D. (University of Michigan)

Master's level

2020/2021 Sahiti Kolli, M.S. (University of Michigan)
 2020/2021 Mitchell Schrank, M.P.H. Candidate (University of Michigan)
 2018-2020 Mingzhou Fu, M.H.I./M.P.H. (University of Michigan)
 2018/2019 Allyson Gregoire, M.P.H. (University of Michigan)
 2017/2018 Harita Vadari, M.P.H. (University of Michigan)
 2017/2018 Bradly Petrowitz, M.P.H. (University of Michigan)
 2016 Jacob Hillman, M.P.H. (University of Michigan)
 2016 Jiaxuan Li, M.P.H. (University of Michigan)
 2015/2016 Kalyn Yasutake, M.P.H. (University of Michigan)
 2015 Farnaz Malik, M.P.H. (University of Michigan)
 2015 Jillian Schrage, M.P.H. (University of Michigan)
 2014 Pritika Dasgupta, M.P.H. (University of Michigan)
 2013 Ellen Riehle, M.P.H. (University of Michigan)

Undergrad level

2018 Jonah Fisher (University of Michigan)
 2017 Nicholas Miller (University of Michigan)
 2017 Isabelle Williams (University of Michigan)

Supervision of staff

Current Mingzhou Fu, Graduate Student Research Assistant and Research Associate II, *University of Michigan*, Department of Epidemiology, supervisor

2021	Benjamin Smith, Bioinformatician I, <i>University of Michigan</i> , Institute for Social Research, Population, Neurodevelopment, and Genetics, supervisor
2020	Ana Cristina Morataya Bustamante, M.D., M.P.H., Graduate Student Research Assistant, <i>University of Michigan</i> , Department of Epidemiology, co-supervisor
2019-2020	Yuan Jin, MS, Research Area Specialist, <i>University of Michigan</i> , Institute for Social Research, Population, Neurodevelopment, and Genetics
2018-2019	Danny Brandt, Graduate Student Research Assistant, <i>University of Michigan</i> , Institute for Social Research, Population, Neurodevelopment, and Genetics
2018-2019	Harita Vadari, MPH Research Associate II, <i>University of Michigan</i> , Institute for Social Research, Population, Neurodevelopment, and Genetics
2018	Ameen Masoodi, Temporary Research Staff, <i>University of Michigan</i> , Institute for Social Research, Population, Neurodevelopment, and Genetics

SERVICE AND MEMBERSHIP

Peer Reviewer for Professional Journals

American Journal of Human Genetics | *Biodemography and Social Biology* | *Biological Research for Nursing* | *Journal of Alzheimer's disease* | *Depression and Anxiety* | *Journal of Traumatic Stress* | *Neuroepidemiology* | *PLoS One*

Formal service activities

2021	Institute for Research on Innovation and Science , Institute for Social Research, University of Michigan. Assistant Research Scientist search committee member
2021	Michigan Institute for Data Science , Propelling Original Data Science Grant Competition Reviewer
2021	Population Association of America , Poster discussant, "P1 Aging and the Life Course; and Mortality and Morbidity"
2020, 2021	Abstract Reviewer , Gerontological Society of America
2019	Population Association of America , Session organizer, "Genetics in aging"
2019 – Present	Research Dissemination Committee , <i>University of Michigan</i> , Institute for Social Research, Survey Research Center. Ann Arbor, MI. Wrote blog posts to highlight fellow researcher's work at the Institute for Social Research
2019 – Present	CoderSpace host , <i>University of Michigan</i> , Institute for Social Research, Ann Arbor, MI. Hosted weekly drop-in hour coding sessions where anyone can come in to code, ask questions, or talk coding
2017 – Present	NIH Ad hoc reviewer , <i>National Institutes of Health</i> , Behavior Genetic Epidemiology Section, Early Career Reviewer (2017), Ad Hoc reviewer (2020), Ad Hoc reviewer (2021)

Professional memberships

2019– *Women in High Power Computing*
 2018– *Society for Research in Child Development (SRCD)*
 2016– *Population Association of America (PAA)*
 2016– *European Survey Research Association (ESRA)*
 2016– *American Society of Human Genetics (ASHG)*
 2015– 2019 *American Heart Association (AHA)*
 2010– *American Statistical Association (ASA)*
 2009– *International Genetics and Epidemiology Society (IGES)*
 2008– *Society for Epidemiological Research (SER)*
 2006– *American Public Health Association (APHA)*
 2004– 2006 *Mathematics Association of America (MAA)*
 2005– 2006 *Upper Midwest Honors Council*

Informal research group membership

2018- *Multiethnic Study of Atherosclerosis – Cognition working group (member)*
 2017- *Ware-Bakulski research lab (co-head)*
 2015 *Integrating Neuroscience Theory, Data & Methods into Demographic Research (seminar participant)*
 2014- *Population Neurodevelopment and Genetics (key faculty)*
 2014- *Army Study to Assess Risk and Resilience in Service members – data (member)*
 2014- *Army Study to Assess Risk and Resilience in Service members – biomarkers (member)*
 2014-2016 *RCGD – Biosocial Methods Collaborative (key faculty)*
 2014-2019 *Genetic Determinants of Urinary Lithogenicity monthly meeting (organizer/secretary)*
 2014- *Gene-Lifestyle Interactions Working Group (member)*
 2014-2015 *FEGHAS – Family Blood Pressure Program (member)*
 2013-2014 *Kardia Science Lab – (co-organizer)*
 2012- *Multiethnic Study of Atherosclerosis - Psychosocial Factors working group (member)*
 2011-2013 *Multiethnic Study of Atherosclerosis – STRESS meeting (member, assistant organizer)*

SPECIALIZED TRAINING AND CERTIFICATES

Current *Responsible Conduct of Research (RCR) – National Institutes of Health*
 Current *HIPAA for Researchers*
 Current *PEERS-University of Michigan*
 2021 *Science of Alzheimer’s disease and Related Dementias for Social Scientists (University of Southern California, National Institute of Aging)*
 2017 *National Institute on Aging Butler-Williams Scholar*
 2016 *The Programs to Increase Diversity among Individuals Engaged in Health-Related Research, PRIDE (declined, due to conflict)*
 2015 *Social and Behavioral Epigenetics Statistics Workshop (University of Florida, National Science Foundation)*
 2014 *Advanced Gene Mapping Course (Rockefeller University)*