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EDUCATION

- 2015 **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 APPOINTMENTS – Research, Teaching, Service, Peer Review

I. Academic Research:

November 2016 – Present **Research Investigator**
University of Michigan, Institute of Social Research
Survey Research Center
Population, Neurodevelopment, and Genetics

Nov 2014 – Oct 2016 **Research Investigator**

*University of Michigan, Institute of Social Research
Research Center for Group Dynamics
Biosocial Methods Collaborative*

March 2014 – March 2015

Research Analyst

*University of Michigan, Institute of Social Research
Army Study to Assess Risk and Resilience in Service members*

January 2014 – Oct. 2014

Research Area Specialist

*University of Michigan, 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, *University of Michigan*

*School of Public Health, 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, *University of Michigan*

*School of Public Health, Center for Social Epidemiology and Population Health,
Ann Arbor, MI*

Advisor: Sandro Galea, MD, DrPH

2006 – September 2008

**Research Assistant, *University of Michigan School of Public Health, Center for
Social Epidemiology and Population Health, Ann Arbor, MI***

Advisor: George Kaplan, PhD

Summer 2007

**Research Intern, *University of Michigan School of Public Health, Center for
Social Epidemiology and Population Health, Ann Arbor, MI***

Advisors: Sandro Galea, MD, DrPH; George Kaplan, PhD

Summer 2005

**Research Analyst Intern, *College of Lake County, Institutional Effectiveness,
Research and Planning, Grayslake, IL***

Supervisor: Nancy McNerny, PhD

II. Teaching and Mentoring:

*Winter 2016 –
Present*

Part-time Teaching Faculty

*Wayne State University, School of Medicine,
FPH7350 – Programming for the Public Health Professional, Detroit, MI*

One course of ~20 graduate students; two 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*

Supervisor: 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

2005 – 2006

Individual Tutor for Special Needs – TRIO program, *Northern Michigan University*, Student Support Services, Marquette, MI

2005 – 2006

Study Group Facilitator/Walk-in Tutor, Concentrating in Mathematics and Sociology. *Northern Michigan University*, All Campus Tutoring Center, Marquette, MI

III. Service

2009

Doctoral Seminar Organizing Committee for EPID 890, *University of Michigan*, Department of Epidemiology, Ann Arbor, MI
Advisor: Dr. Sharon Kardia

2009

PhD Student Representative to the Admissions Committee
University of Michigan, Department of Epidemiology, Ann Arbor, MI
Chair: Dr. Carl Marrs

Mentoring of Graduate Students, Post-Doctoral Fellow

Post-Doc level

2016 Lauren Schmitz, Ph.D (The New School, Post-Doc at University of Michigan)

Ph.D. level

2014 Neha Sheth, PharmD, Ph.D (University of Michigan)

2014 Paul Christine, M.D./Ph.D. (University of Michigan)

Current Kristen Brown, Ph.D. candidate (University of Michigan)
Current Arianna Gard, Ph.D. candidate (University of Michigan)
Current MJ Kho, Ph.D. candidate (University of Michigan)

Master's level

2013 Ellen Riehle, M.P.H. (University of Michigan) – Truven Health Analytics
2014 Pritika Dasgupta, M.P.H. (University of Michigan)
2015 Farnaz Malik, M.P.H. (University of Michigan)
2015 Jillian Schrager, M.P.H. (University of Michigan) Michigan Dept. of Com Health
2015/2016 Kalyn Yatsutake, M.P.H. Candidate (University of Michigan)
2016 Jacob Hillman, M.P.H. Candidate (University of Michigan)
2016 Jiaxuan Li, M.P.H. Candidate (University of Michigan)
2017 Harita Vadari, M.P.H. Candidate (University of Michigan)

IV. Peer Reviewer for Professional Journals

2008 – *Journal of Traumatic Stress*
2009 – *Depression and Anxiety*

GRANTS

Submitted or in progress:

National Institute on Minority Health and Health Disparities

R01 MD011716 Mitchell (PI)

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

Impact score: 10 Percentile: 1%

National Institute of Child Health and Human Development

R21 HD093367 Mitchell & Morrison (MPIs)

Testing the Application of Cognitive Decline Related Genes to Growth in Behavioral and Neurological Indices of Executive Function in Early Elementary School

Impact Score: 24 Percentile: 13%

Grant being prepared to be resubmitted in July 2017

National Institute on Aging

R01 AG055406 Ware (PI)

Characterizing disparities in late-onset Alzheimer's disease risk through polygenic risk and epidemiologic factors in the Health and Retirement Survey

The overall purpose of this proposal is to establish the relevance of polygenic risk in susceptibility to dementia, particularly among groups at increased risk of disease, including women, minorities, rural inhabitants, and those with low educational attainment. Because an individual's susceptibility to dementia is likely a combination of genetics and environmental risk factors, we will jointly test the effects of cumulative genetic risk and dementia risk factors in our analysis. The proposal provides an opportunity to identify a genetic etiologic component in vulnerable groups that could lead to mechanistic understanding or targeted interventions to substantially benefit public health in the US.

National Institute on Aging

R01 AG055654-01A1 Galama, Faul (MPI)

Identifying modifiable aspects of gene-by-SES and gene-by-work interplay in later-life cognitive decline

With the rising prevalence of dementia there is an urgent need to identify opportunities for preventing or delaying its onset. This project aims to use significant and replicated results from existing genome-wide

association studies to develop novel gene-based (burden scores) and genome-wide (polygenic scores) methods that better capture genetic risk and to examine whether socioeconomic status (SES) and work characteristics moderate the effect of genes on the development of dementia and cognitive decline in later life. We will evaluate how gene-by-SES and gene-by-work interplay evolves over the lifecycle, identify modifiable characteristics of SES and work, establish the direction of causality and, when possible, investigate mechanisms that give rise to interplay.
Role: Co-Investigator and Genetics expert

National Institute on Aging
U01 AG009740-29

Weir (PI)

Health and Retirement Study Yrs 29-34

The Health and Retirement Study is the nation's pre-eminent resource for publicly-available data on the economic well-being and physical and mental health of its older population. This proposal seeks continuation of core data collection for three more waves, including the introduction of a new younger cohort in 2022 to refresh the sample following the steady state sampling design. It will also build the repository of biosamples, maintain the expanded representation of minorities, and further expand data access to maintain the study as the premier source of data on public health of the older population.

Current research is supported by the following funding sources:

Institute for Social Research
2 P30 AG012846 (Bound)

07/01/16 – 06/30/18

National Institute on Aging
Michigan Center on the Demography of Aging
Pilot Grant

Ware (PI)

Demographic and socioeconomic differences in polygenic risk of cardiovascular health in the Health and Retirement Study

We propose to examine the extent to which these PRSs are associated with cardiovascular risk factors (i.e. systolic and diastolic blood pressure, body mass index (BMI), smoking, and alcohol use), and how these associations are modified by key demographic (i.e. sex, age) and socioeconomic factors (i.e. child socioeconomic status (SES) measured by parental education or occupation, and adult SES measured by education, income, or occupation), across the life course.

University of Michigan Provost Funds

Gonzalez (Director)

01/01/2013-12/31/18

BioSocial Methods Collaborative

The goal of the BioSocial Methods Collaborative is to be a catalyst, incubator and educator for new research methodologies that link the social and health sciences in service of promoting health and improved quality of life by identifying more complex and integrated data analyses to support improved decision making for individuals, communities and society.

Role: Research Investigator

I worked closely with the director, co-director, and core staff to incorporate social data with biological data through novel methods and promote the collaborative across campus through collaboration.

R25 AG053227

Faul/Kardia/Mitchell (MPIs)

09/15/16 – 04/30/21

Genomic Analysis for Social-Behavioral Scientists

This R25 Research Education Program creates an annual week-long summer workshop and series of online modules and web-based resources to build the capacity of social and behavioral scientists to understand, collaborate on, and conduct genomic research using NIH-funded resources, such as the Health and Retirement Study.

R01 HL133221

Smith (PI)

07/01/16 – 06/30/20

Epigenetics of Arteriosclerosis in African American Hypertensive Sibships

The goal of this project is to examine the association between epigenome-wide DNA methylation and arteriosclerotic damage to organ systems affected by hypertension (heart, brain, kidneys, peripheral

arteries), both cross-sectionally and longitudinally. Genomic, epigenomic, and transcriptomic data will then be integrated to explore whether gene expression mediates the effects of DNA methylation and/or genetic factors on target organ damage and arteriosclerosis risk factors.

U01 AG009740-26
NIH/NIA

Weir (PI)

01/01/98-12/31/17

Health and Retirement Study Yrs 23-28

The Health and Retirement Study is the nation's pre-eminent resource for publicly-available data on the economic well-being and physical and mental health of its older population. Its longitudinal design allows rigorous examination of causal pathways among social, psychological, economic, and health variables and the impact of policy changes on these relationships.

Previous research was supported by the following grants:

R01 HL119443
NIH/NHLBI

Kardia (PI)

09/01/14 - 08/31/18

Genetic Mechanisms of Arteriosclerosis in Hypertensive Sibships

The goal of this project is to use rich family data to discover which functional alleles in which genes in which families in which populations are giving rising to the risk of arteriosclerosis in a particular organ system or peripheral arteries

Role: Research Investigator

On this project, I was responsible for analyzing family-based genetic data as it relates to the risk of arteriosclerosis and the outcomes of hypertension and obesity. Analyses included cross-ethnicity meta-analysis of gene region and SNP-level associations, and interactions with known risk factors for BP and BMI. I also worked with a team of collaborators in writing and editing the manuscripts for publication and present findings at national scientific meetings.

1U01MH08798101

Heeringa (PI)

07/16/09 – 06/30/15

National Institutes of Health

Modifiable Risk and Protective Factors for Suicidal Behaviors in the US Army

The University of Michigan is collaborating with several organizations – Uniformed Services University of the Health Sciences, Harvard Medical School, and University of California San Diego – to conduct a study of the risk factors for suicide, suicide attempts, and other mental health issues among members of the US Army.

Role: Research Investigator

My role on this grant was to combine high-dimensional biological and social data from cohorts of active service members. Primarily, I performed genome-wide association studies, genetic risk score analyses, genome-wide complex trait analyses, and epigenetic investigation in the context of psychiatric disorders including suicide attempt, suicidal ideation, post-traumatic stress disorder, and generalized anxiety disorder.

R03 AG046389

Kardia (PI)

09/30/13 – 08/31/15

NIH/NIA

Genetic and Psychosocial Predictors of Blood Pressure and Body Mass Index

The overall goal of this project is to use the rich combination of genomic and psychosocial data of the Health Retirement Study (HRS) to investigate the contribution of genetic, socioeconomic, and psychosocial factors to blood pressure and BMI in a nationally-representative cohort study.

Role: Key Personnel Research Investigator

My role on this grant includes completing cross-ethnicity meta-analysis of gene region and SNP-level associations, gene-level and SNP-level interaction with socioeconomic and psychosocial factors analyses, as well as exome chip-wide heritability estimates for African- and European-Americans for

BMI and BP. I also work with a team of collaborators in writing and editing the manuscripts for publication and present findings at national scientific meetings.

R01 HL086694 Chakravarti (PI), Kardia (PI of UM subcontract) 08/05/11 – 5/30/15
NIH

Genome-Wide Association Analysis in Essential Hypertension

The goal of this project is to identify all polymorphic variants that modulate blood pressure and hypertension through genome-wide association study meta-analysis of ~145,000 European Americans and African Americans in the ARIC cohort, conduct an exome-wide association study to identify rare genetic variants associated with these traits, and assess gene-gene and gene-environment interactions in blood pressure and hypertension variability.

Role: Staff scientist

R01 HL101161 Diez Roux (PI) 06/15/10 – 6/30/15
NIH/NHLBI

Stress, Gene-Environment Interaction and Cardiovascular Disease

The goals of this study are to investigate long-term associations of the stress response (as characterized by multiple measures of stress hormones) with social/psychosocial antecedents and cardiovascular-related outcomes, as well as modifications of the stress response by variations in selected candidate genes, and links between epigenetic changes, social/psychosocial exposures, and the stress response. The Multiethnic Study of Atherosclerosis (MESA) will be used to execute the specific aims.

Role: Graduate Student Research Assistant

N012549-399788 Bakshis (Ware) (PI) 05/15/10-08/31/10
RWJF

Gene X social environment interactions and depressive symptom scores

The goal of this project is to investigate gene x environment, defined as individual-level social support or chronic burden or neighborhood-level insults scores, in a multi-ethnic study.

Role: PI

AWARDS AND HONORS

2017 *National Institute on Aging Butler-Williams Scholar*
2016 *A. Regula Herzog Young Investigator Award*
2016 *PRIDE -- The Programs to Increase Diversity among Individuals Engaged in Health-Related Research (declined)*
2016 *Fragile Families Data Workshop Selectee*
2016 *MiCDA Small grant awardee*
2015 *Michigan Road Scholar*
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*
2009-2010 *Elected PhD Student Representative to the Admissions Committee*
2009 *Rackham Travel Grant*
2009 *Epidemiology Travel Block Grant*
2003-2006 *NMU Scholars Award*
2003-2006 *National Academic Award*
2005-2006 *Mary L. Campbell Scholarship Winner*

2005 Honors Program Leadership Award
2003-2006 Dean's list, Northern Michigan University, 8 Semesters

SERVICE

2017-2015 NIH Behavior Genetic Epidemiology Section (Early Career Reviewer)
Integrating Neuroscience Theory, Data & Methods into Demographic Research
(seminar participant)
2014- Population Neurodevelopment and Genetics (member)
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- RCGD – Biosocial Methods Collaborative (key faculty)
2014- Genetic Determinants of Urinary Lithogenicity monthly meeting (organizer/secretary)
2014- Gene-Lifestyle Interactions Working Group (member)
2014- FEGHAS – Family Blood Pressure Program (member)
2013- Kardia Science Lab – (co-organizer)
2012- Multiethnic Study of Atherosclerosis - Psychosocial Factors working group (member)
2011- Multiethnic Study of Atherosclerosis – STRESS meeting (member, assistant organizer)
2009-2010 Elected PhD Student Representative to the Admissions Committee

CERTIFICATES

Responsible Conduct of Research (RCR) – National Institutes of Health
HIPAA for Researchers
PEERS-University of Michigan

PROFESSIONAL MEMBERSHIPS

Population Association of America 2016 –
European Survey Research Association 2016 –
American Society of Human Genetics 2016 –
American Heart Association, 2015 –
American Statistical Association (ASA), 2010 –
International Genetics and Epidemiology Society (IGES), 2009 –
Society for Epidemiological Research (SER), 2008 –
American Public Health Association (APHA), 2006 –
Mathematics Association of America (MAA), 2004 – 2006
Upper Midwest Honors Council, 2005 – 2006

PUBLICATIONS

Books and book chapters

Martha Aliaga, Brenda Gunderson (Authors). **Erin Bakshis** (Contributor). (*In preparation ~2016*).
Interactive Statistics Fourth Edition. Upper Saddle River, NJ: Pearson Prentice Hall.

Monica Uddin, **Erin Bakshis**, Regina de los Santos (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*.

IN PROGRESS AND UNDER REVIEW

In progress

Ware EB, Smith JA, Turner ST, Curhan G, Kardia SLR, Lieske JC. Genome-wide association meta-analysis of four urinary excretion factors which lead to nephrolithiasis.

Ware EB, Miller N, Williams I, Schmitz LL, Gard AM, Mitchell CM, Faul JD. Heterogeneous effects of G x E interactions due to the method of construction.

Turcot V, Lu Y, Highland HM, Schurmann C, Justice AE, (incl. **Ware EB**). Protein-altering variants associated with body mass index implicate pathways that control energy intake and expenditure underpinning obesity.

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, Llewlyn 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.

CHARGE gene x lifestyle working group (incl. **Ware EB**). Gene by smoking interactions in systolic and diastolic blood pressure: discovery and replication.

CHARGE gene x lifestyle working group (incl. **Ware EB**). Gene by smoking interactions in mean arterial pressure and pulse pressure: discovery and replication.

CHARGE gene x lifestyle working group (incl. **Ware EB**). Gene by alcohol drinking behavior interactions in systolic and diastolic blood pressure: discovery and replication.

CHARGE gene x lifestyle working group (incl. **Ware EB**). Gene by alcohol drinking behavior in mean arterial pressure and pulse pressure: discovery and replication.

CHARGE gene x lifestyle working group (incl. **Ware EB**). Gene by smoking interactions in lipid traits: discovery and replication.

CHARGE gene x lifestyle working group (incl. **Ware EB**). Gene by alcohol drinking behavior interactions in lipid traits: discovery and replication.

Smith JA, Tomey KT, Needham BL, **Ware EB**, Seeman T, Rapp SR, Kardia SLR, Diez Roux AV. Does the apolipoprotein E (APOE) epsilon-4 allele modify associations between social factors and cognitive functioning: A cross-sectional investigation in the Multi-Ethnic Study of Atherosclerosis. In preparation.

Smith JA, Zhao W, Needham B, Faul JD, Seeman TE, **Ware EB**, Boerwinkle E, Chakravarti A, Gao Y, Griswold ME, Heiss G, Musani SK, North K, Rose K, Sims M, Sun YV, Tomey KT, Weir DR, Kardia SLR, Diez-Roux AV. Identifying interactions among social, psychosocial, and genetic factors that influence blood pressure in multi-ethnic epidemiologic cohorts. In preparation.

Schrager JN, **Ware EB**, Kardia SLR, Smith, JA. The association of gene expression and REST polymorphisms with global cognitive function in the Genetic Epidemiology Network of Arterioopathy and the Health and Retirement Study. In preparation.

Mitchell C, **Ware EB**, Stein MB, Chen CY, Gelernter J, Heeringa S, Jain S, Kessler RC, Nock MK, Sun X, Ursano RJ, Smoller JW. Methylation and psychiatric phenotypes in three studies of active duty US army soldiers.

Under review

Ware EB, Schmitz LL, Faul JD, Gard AM, Mitchell CM, Smith JA, Zhao W, Weir D, Kardina SLR. Heterogeneous effects of polygenic scores for common human traits due to the method of construction. (PNAS)

Sung YJ, CHARGE gene-lifestyle working group (incl. **Ware EB**). Multi-ancestry genome-wide study incorporating gene-smoking interactions in 610,091 individuals identifies 191 genome-wide significant loci for systolic and diastolic blood pressure. (Submitted – Nature Genetics)

Wang H, Nandakumar P, Tekola A, Tayo B, **Ware EB**, et.al, Rare variants within multiple genes at a chromosome 1q locus contributes to blood pressure variation: the combined use of linkage-association tests. (Submitted-American Journal of Human Genetics)

REVISE AND RESUBMIT

Stein MB, **Ware EB**, Mitchell C, Chen CY, Gelernter J, Heeringa S, Jain S, Kessler RC, Nock MK, Sun X, Ursano RJ, Smoller JW. Genome-wide association studies of suicidal ideation and suicide attempts in three studies of active duty US army soldiers. (Submitted - Bio Psych).

Perinpan M, **Ware EB**, Smith JA, Turner STT, Kardina SLR, Lieske JC. Association of urinary citrate excretion, pH, and net gastrointestinal alkali absorption with diet, diuretic use, and diabetic risk factors. (American Journal of Physiology-Renal Physiology)

PUBLISHED

Canales B,* Smith JA,* Weiner ID, **Ware EB**, Zhao W, Kardina SLR, Curhan GC, Turner ST, Perinpan M, Lieske JC. Polymorphisms in renal ammonia metabolism genes correlate with 24 hour urine pH. Submitted.

*Starred authors contributed equally to this work

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 Genet. 2017 May 12;13(5):e1006728. doi: 10.1371/journal.pgen.1006728. PMID: 28498854

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 Genet. 2017 Apr 21;13(4):e1006719. doi: 10.1371/journal.pgen.1006719. eCollection 2017 Apr. PMID: 28430825

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, Kardina SLR, Lin X, Chakravarti A, Redline S, Zhu X. Rare variants in Fox-1 Homolog A (RBFox1) are associated with lower blood pressure. PLoS Genet. 2017 Mar 27;13(3):e1006678. doi: 10.1371/journal.pgen.1006678. eCollection 2017 Mar. PMID: 28346479

Jhun MA, Park SK, **Ware EB**, Kardia SLR, Peyser P. 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*. 2017. doi: 10.1093/aje/kwx181

Nandakumar P, Lee D, Richard MA, et al (including **Ware EB**). Rare coding variants associated with blood pressure in 15,914 individuals of African ancestry. *J Hypertens*. 2017 Feb 22. doi: 10.1097/HJH.0000000000001319. PMID: 28234671.

Ware EB, Schmitz LL, Faul JD, Gard AM, Smith JA, Mitchell CM, Weir DR, Kardia SLR. Heterogeneity in polygenic scores for common human traits. *BiorXiv*. 2017. doi: 10.1101/106062

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*. 2016 Dec 8. pii: S0006-3223(16)33068-2. doi: 10.1016/j.biopsych.2016.11.013. [Epub ahead of print] PMID: 28049566

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*. 2016 Nov 22;113(47):13366-13371. doi: 10.1073/pnas.1605334113. PMID: 27799538

Joehanes R, Just AC, Marioni R, ..., **Ware EB**, et al. Epigenetic signatures of cigarette smoking. *Circ Cardiovasc Genet*. 2016 Oct;9(5):436-447. doi: 10.1161/CIRCGENETICS.116.001506. PMID: 27651444

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. *Nature*. 2016 May 26;533(7604):539-42. doi: 10.1038/nature17671. Epub 2016 May 11. PMID: 27225129

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*. 2016 May 11. doi: 10.1001/jamapsychiatry.2016.0350. *JAMA Psychiatry*. 2016 Jul 1;73(7):695-704. doi: 10.1001/jamapsychiatry.2016.0350. PMID: 27167565

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*. 2016 Mar 1:133(Suppl 1).

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*. 2016 Mar 1:133(Suppl 1).

Broadaway 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. (2016) A statistical approach for testing cross-phenotype effects of rare variants. *Am J Hum Genet*. 2016 Mar 3;98(3):525-40. doi: 10.1016/j.ajhg.2016.01.017. PMID: 26942286

Perinpam M, **Ware EB**, Smith JA, Turner ST, Kardia SLR, Lieske JC. (2016) Key influence of sex on urine volume and osmolality. *Biol Sex Differ*. 2016 Feb 9;7:12. doi: 10.1186/s13293-016-0063-0. eCollection 2016. PMID: 26865949

Ware EB, Diez-Roux AV, Smith JA, Sun YV, Kardia SLR. (2015). 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*. 2015, 16:118 doi:10.1186/s12863-015-0274-0. PMID: 26459564

Ware EB, Smith JA, Mukherjee B, Lee S, Diez-Roux AV, Kardia SLR. (2015). Gene by environment interactions in a social environment setting: the Multi-Ethnic Study of Atherosclerosis. *Behav Genet*. 2015 Aug 9. PMID: 26254610

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***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. [abstract accepted] 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. [abstract accepted] Society for Epidemiological Research

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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 [abstract accepted]

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.

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*Perinbam 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. San Diego, CA, USA. November 6, 2015.

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*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.

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- *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
- ***Bakshis, E.** 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.**, 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. 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.**
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