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EDUCATION

- 2006 Ph.D. Epidemiology, University of Colorado Denver and Health Sciences Center, Denver, Colorado
Dissertation: *Effects of Vitamin D Genes on Measures of Insulin Secretion, Insulin Sensitivity and Adiposity: An Ancillary Study to the Insulin Resistance Atherosclerosis Study (IRAS) Family Study*
- 2002 M.S. Public Health, University of Colorado Health Sciences Center, Denver, Colorado
Thesis: *Calpain-10 gene, physical inactivity and type 2 diabetes mellitus: A possible gene-environment interaction*
- 1995 B.S. Biological Sciences, University of Wisconsin-Parkside, Kenosha, Wisconsin

POSITIONS HELD

- 2020-present Professor, Population Health Sciences
University of Wisconsin School of Medicine and Public Health
- 2018-present Vice Chair, Population Health Sciences
University of Wisconsin School of Medicine and Public Health
- 2018-present Director, Population Health and Epidemiology Graduate Programs
University of Wisconsin School of Medicine and Public Health
- 2014-2020 Associate Professor (with tenure), Population Health Sciences
University of Wisconsin School of Medicine and Public Health
- 2007-2014 Assistant Professor, Population Health Sciences
University of Wisconsin School of Medicine and Public Health
- 2001-2006 Research Assistant, Department of Preventive Medicine and Biometrics
University of Colorado Denver and Health Sciences Center
- 1998-2006 Clinical Research Programmer/Analyst
Allos Therapeutics, Westminster, Colorado

1995-1998 Clinical Research Data Manager
Abbott Laboratories, Abbott Park, Illinois

AFFILIATE APPOINTMENTS

2019-present Faculty Trainer, Biology of Aging and Age-Related Diseases Training Program, UW
2018-present Faculty Trainer, Bio-Data Science Training Program, UW
2014-present Faculty Trainer, Computation and Informatics in Biology and Medicine, UW
2014-present Faculty Trainer, Center for Demography and Ecology Training Program, UW
2013-present Faculty Trainer, Center for Demography of Health and Aging Training Program, UW
2013-present Affiliate, Alzheimer's Disease Research Center, UW
2007-present Affiliate, Institute on Aging, UW

HONORS AND AWARDS

2019 Distinguished Alumni Achievement Award, College of Natural and Health Sciences,
University of Wisconsin-Parkside
2014 Elected for membership into the Delta Omega National Honorary Society in Public
Health by the Colorado School of Public Health Alpha Upsilon Chapter
2013 Population Health Sciences Outstanding Instructor Award
2012 Outstanding Young Investigator in Alzheimer's disease (selected by the Charleston
Conference on Alzheimer's Disease Scientific Board)
2010 Selected for the AAMC Early Career Women Faculty Professional Development
Seminar
2007 Teaching Academy Summer Institute Award (\$500 grant to support teaching project)
2005 Society of Epidemiologic Research Student Workshop Scholarship
2003 University of Alabama at Birmingham Short Course in Statistical Genetics Scholarship
2001 Public Health/Epidemiology Traineeship
1993-1995 Kenosha Foundation Scholarship

PROFESSIONAL MEMBERSHIP

American Society of Human Genetics
International Genetic Epidemiology Society
International Society to Advance Alzheimer Research and Treatment

PROFESSIONAL ACTIVITIES

Editorial and Advisory Boards

2014-present Associate Editor, Journal of Alzheimer's Disease
2014-2018 Member, Genetic Analysis Workshop Advisory Committee
2014-2015 Editor, Genetic Analysis Workshop 19 Proceedings
2012-2013 Associate Editor, Genetic Analysis Workshop 18 Proceedings
2010-2011 Associate Editor, Genetic Analysis Workshop 17 Proceedings

Manuscript Review for the Following Journals

American Journal of Human Genetics, Genetic Epidemiology, Human Genetics, Epidemiology, American Journal of Epidemiology, Journal of Clinical Endocrinology and Metabolism, American Journal of Clinical Nutrition, Journal of Nutrition, Clinical Nutrition, Alzheimer's and Dementia Journal, Journal of Alzheimer's Disease, Neuroepidemiology, Acta Neuropathologica, Genes and Nutrition, European Journal of Human Genetics, BMC Genomics, JAMA Network, PLoS ONE, Trends in Genetics

NIH Grant Review

2022	Reviewer, NIA Alzheimer's Disease Sequencing Project Follow-Up Study 2.0: The Diverse Population Initiative (U01)
2021	Reviewer, NIA Late Onset of Alzheimer's Disease (LOAD) Family-Based Study (FBS)
2018	Ad hoc reviewer, NIH Novel Approaches to Diagnosing Alzheimer's Disease and Predicting Progression (R01)
2017	Ad hoc reviewer, NIH Biomarker Studies for Diagnosing Alzheimer's Disease and Predicting Progression (R01)
2016-2018	Reviewer, NIH Major Opportunities for Research in Epidemiology of Alzheimer's Disease and Cognitive Resilience Study Section (R01)
2016-2018	Reviewer, NIH Leveraging Existing Cohort Studies to Clarify Risk and Protective Factors for Alzheimer's Disease and Related Dementias Study Section (R01)

Other Review Work

2018-2023	Abstract Reviewer, Alzheimer's Association International Conference
2018	Reviewer, UW2020 Grant Program
2014	Reviewer, Center for Demography of Health and Aging Pilot Grant Program
2010-2016	Reviewer, Alzheimer's Association International Research Grant Program
2012-2017	Reviewer, Wisconsin Alzheimer's Disease Research Center Pilot Grant Program
2008-2014	Reviewer, Institute for Clinical and Translational Research Type 2 Pilot Grant Program
2011	Reviewer, Book prospectus for <i>Genetic Analysis of Complex Disease, Third Edition</i> , Wiley-Blackwell Publishing
2010	Reviewer, Book proposal for <i>Basic Genetic Epidemiology</i> , Garland Science Publishers
2008	Reviewer, Type 1 Diabetes Genetics Consortium Major Histocompatibility Complex (MHC) Fine Mapping Workshop

PUBLICATIONS IN PEER-REVIEWED JOURNALS

1. Panyard DJ, Deming YK, Darst BF, Van Hulle CA, Zetterberg H, Blennow K, Kollmorgen G, Suridjan I, Carlsson CM, Johnson SC, Asthana S, **Engelman CD**, Lu Q. Liver-Specific Polygenic Risk Score is Associated with Alzheimer's Disease Diagnosis. *J Alzheimers Dis.* 2023 Feb 2. Online ahead of print. PMC pending.
2. Vasiljevic E, Kosciak RL, Jonaitis E, Betthausen T, Johnson SC, **Engelman CD**. Cognitive trajectories diverge by genetic risk in a preclinical longitudinal cohort. *Alzheimer's Dement.* 2023 Feb 1. <https://doi.org/10.1002/alz.12920>. PMC pending.

3. Driscoll I, Ma Y, Lose SR, Gallagher CL, Johnson SC, Asthana S, Hermann BP, Sager MA, Blennow K, Zetterberg H, Carlsson CM, **Engelman CD**, Dubal DB, Okonkwo OC. AD-associated CSF biomolecular changes are attenuated in KL-VS heterozygotes. *Alzheimer's & Dementia: Diagnosis, Assessment & Disease Monitoring*. 2022 Dec 7;14(1):e12383. PMID: PMC9728548.
4. Paulsen AJ, Schubert CR, Pinto AA, Chappell RJ, Chen Y, Cruickshanks KJ, **Engelman CD**, Ferrucci L, Hancock LM, Johnson SC, Merten N. Associations of sensory and motor function with blood-based biomarkers of neurodegeneration and Alzheimer's disease in midlife. *Neurobiol Aging*. 2022 Dec;120:177-188. PMC pending.
5. Betthausen TJ, Bilgel M, Kosciak RL, Jedynek BM, An Y, Kellett KA, Moghekar A, Jonaitis EM, Stone CK, **Engelman CD**, Asthana S, Christian BT, Wong DF, Albert M, Resnick SM, Johnson SC; Alzheimer's Disease Neuroimaging Initiative. Multi-method investigation of factors influencing amyloid onset and impairment in three cohorts. *Brain*. 2022 Nov 21;145(11):4065-4079. PMID: PMC9679170.
6. Gaitán JM, Asthana S, Carlsson CM, **Engelman CD**, Johnson SC, Sager MA, Wang D, Dubal DB, Okonkwo OC. Circulating Klotho Is Higher in Cerebrospinal Fluid than Serum and Elevated Among KLOTHO Heterozygotes in a Cohort with Risk for Alzheimer's Disease. *J Alzheimers Dis*. 2022;90(4):1557-1569. PMC pending.
7. Morrow A, Panyard DJ, Deming YK, Jonaitis E, Dong R, Vasiljevic E, Betthausen TJ, Kollmorgen G, Suridjan I, Bayfield A, Van Hulle CA, Zetterberg H, Blennow K, Carlsson CM, Asthana S, Johnson SC, **Engelman CD**. Cerebrospinal Fluid Sphingomyelins in Alzheimer's Disease, Neurodegeneration, and Neuroinflammation. *J Alzheimer's Dis*. 2022;90(2):667-680. PMID: PMC9809197.
8. Dong R; Denier-Fields DN; Lu Q; Suridjan I; Kollmorgen G; Wild N; Betthausen TJ; Carlsson CM; Asthana S; Johnson SC; Zetterberg H; Blennow K; **Engelman CD**. Principal components from untargeted cerebrospinal fluid metabolomics associated with Alzheimer's disease biomarkers. *Neurobiology of Aging*. 2022 Sep;117:12-23.
9. Eissman JM, Dumitrescu L, Mahoney ER, Smith AN, Mukherjee S, Lee ML, Scollard P, Choi SE, Bush WS, **Engelman CD**, Lu Q, Fardo DW, Trittschuh EH, Mez J, Kaczorowski CC, Hernandez Saucedo H, Widaman KF, Buckley RF, Properzi MJ, Mormino EC, Yang HS, Harrison TM, Hedden T, Nho K, Andrews SJ, Tommet D, Hadad N, Sanders RE, Ruderfer DM, Gifford KA, Zhong X, Raghavan NS, Vardarajan BN; Alzheimer's Disease Neuroimaging Initiative (ADNI); Alzheimer's Disease Genetics Consortium (ADGC); A4 Study Team, Pericak-Vance MA, Farrer LA, Wang LS, Cruchaga C, Schellenberg GD, Cox NJ, Haines JL, Keene CD, Saykin AJ, Larson EB, Sperling RA, Mayeux R, Cuccaro ML, Bennett DA, Schneider JA, Crane PK, Jefferson AL, Hohman TJ. Sex differences in the genetic architecture of cognitive resilience to Alzheimer's disease. *Brain*. 2022 Jul 29;145(7):2541-2554. PMID: PMC9337804.
10. Malecki KMC, Nikodemova M, Schultz AA, LeCaire TJ, Bersch AJ, Cadmus-Bertram L, **Engelman CD**, Hagen E, McCulley L, Palta M, Rodriguez A, Sethi AK, Walsh MC, Nieto FJ, Peppard PE. The Survey of the Health of Wisconsin (SHOW) Program: An Infrastructure for

Advancing Population Health. *Front Public Health*. 2022 Mar 31;10:818777. PMID: PMC9008403.

11. Seto M, Mahoney ER, Dumitrescu L, Ramanan VK, **Engelman CD**, Deming Y, Albert M, Johnson SC, Zetterberg H, Blennow K, Vemuri P, Jefferson AL, Hohman TJ, for the Alzheimer's Disease Neuroimaging Initiative. Exploring genetic contributors to neuroprotection from amyloid pathology. *Brain Commun*. 2022 Mar 17;4(2):fcac066. PMID: PMC9006043.
12. Jonaitis EM, Zetterberg H, Kosciak RL, Betthausen TJ, Fan Hulle CA, Hogan K, Hegge L, Kollmorgen G, Suridjan I, Gleason CE, **Engelman CD**, Okonkwo OC, Asthana S, Bendlin BB, Carlsson CM, Johnson SC, Blennow K. Crosswalk study on blood collection-tube types for Alzheimer's disease biomarkers. *Alzheimer's & Dementia: Diagnosis, Assessment & Disease Monitoring*. 2022 Feb 9;14(1):e12266. PMID: PMC8828996.
13. Driscoll I, Ma Y, Gallagher CL, Johnson SC, Asthana S, Hermann BP, Sager MA, Blennow K, Zetterberg H, Carlsson CM, **Engelman CD**, Dubal DB, Okonkwo OC. Age-related tau burden and cognitive deficits are attenuated in *KLOTHO* KL-VS heterozygotes. *J Alzheimer's Dis*. 2021;82(3):1369-1370. PMC pending.
14. Darst BF, Huo Z, Jonaitis EM, Kosciak RL, Clark LR, Lu Q, Kremen WS, Franz CE, Rana B, Lyons MJ, Hogan KJ, Zhao J, Johnson SC, **Engelman CD**. Metabolites associated with early cognitive changes implicated in Alzheimer's disease. *J Alzheimers Dis*. 2021;79(3):1041-1054. PMID: PMC8054536.
15. Bruno D, Mueller KD, Betthausen T, Chin N, **Engelman CD**, Christian B, Kosciak RL, Johnson SC. Serial position effects in the Logical Memory Test: Loss of primacy predicts amyloid positivity. *Journal of Neuropsychology*. 2021 Sep;15(3):448-461. PMID: PMC8175453.
16. Ennis GE, Kosciak RL, Ma Y, Jonaitis EM, Van Hulle CA, Betthausen TJ, Randall AM, Chin N, **Engelman CD**, Anderson R, Suridjan I, Kollmorgen G, Christian BT, Carlsson CM, Asthana S, Johnson SC, Zetterberg H, Blennow K, Bendlin BB. Insulin resistance is related to cognitive decline but not change in CSF biomarkers of Alzheimer's disease in non-demented adults. *Alzheimer's & Dementia: Diagnosis, Assessment & Disease Monitoring*. 2021 Jul 28;13(1):e12220. PMID: PMC8319658.
17. Palmer ND, Lu L, Register TC, Lenchik L, Carr JJ, Hicks PJ, Smith SC, Xu J, Dimitrov L, Keaton J, Guan M, Ng MCY, Chen YI, Hanley AJ, **Engelman CD**, Norris JM, Langefeld CD, Wagenknecht LE, Bowden DW, Freedman BI, Divers J. Genome-wide association study of vitamin D concentrations and bone mineral density in the African American-Diabetes Heart Study. *PLoS One*. 2021 May 20;16(5):e0251423. PMID: PMC8136717.
18. Dong R, Darst BF, Deming Y, Ma Y, Lu Q, Zetterberg H, Blennow K, Carlsson CM, Johnson SC, Asthana S, **Engelman CD**. CSF metabolites associate with CSF tau and improve prediction of Alzheimer's disease status. *Alzheimer's & Dementia: Diagnosis, Assessment & Disease Monitoring*. 2021 May 1;13(1):e12167. PMID: PMC8087982.

19. McKetney J, Panyard DJ, Johnson SC, Carlsson C, **Engelman CD**, Coon JJ. Pilot proteomic analysis of cerebrospinal fluid in Alzheimer's disease. *Proteomics Clin Appl*. 2021 May;15(2-3):e2000072. PMID: PMC8197734.
20. Panyard DJ, Kim KM, Darst BF, Deming YK, Zhong X, Wu Y, Kang H, Carlsson CM, Johnson SC, Asthana S, **Engelman CD***, Lu Q*. Cerebrospinal fluid metabolomics identifies 19 brain-related phenotype associations. *Communications Biology*. 2021 Jan 12;4(1):63. PMID: PMC7803963.

***Joint senior author**

21. Binversie EE, Baker LA, **Engelman CD**, Hao Z, Moran JJ, Piazza AM, Sample SJ, Muir P. Analysis of copy number variation in dogs implicates genomic structural variation in the development of anterior cruciate ligament rupture. 2020 Dec 31;15(12):e0244075. PMID: PMC7774950.
22. Huo Z, Rana BK, Elman JA, Dong R, **Engelman CD**, Johnson SC, Lyons MJ, Franz CF, Kremen WS, Zhao J. Metabolic profiling of cognitive aging in midlife. *Frontiers in Aging Neuroscience*. 2020 Nov 5;12:555850. PMID: PMC7674168.
23. Dumitrescu L, Mahoney ER, Mukherjee S, Lee ML, Bush WS, **Engelman CD**, Lu Q, Fardo DW, Trittschuh EH, Mez J, Kaczorowski C, Hernandez Saucedo H, Widaman KF, Buckley R, Properzi M, Mormino E, Yang H, Harrison T, Hedden T, Nho K, Andrews SJ, Tommet D, Hadad N, Sanders RE, Ruderfer DM, Gifford KA, Moore AM, Cambronero F, Zhong X, Raghavan NS, Vardarajan B, The Alzheimer's Disease Neuroimaging Initiative (ADNI), Alzheimer's Disease Genetics Consortium (ADGC), A4 Study Team, Pericak-Vance MA, Farrer LA, Wang L, Cruchaga C, Schellenberg G, Cox NJ, Haines JL, Keene CD, Saykin AJ, Larson EB, Sperling RA, Mayeux R, Bennett DA, Schneider JA, Crane PK, Jefferson AL, Hohman TJ. Genetic Variants and Functional Pathways Associated with Resilience to Alzheimer's Disease. *Brain*. 2020 Aug 1;143(8):2561-2575. PMID: PMC7447518.
24. Raghavan NS, Dumitrescu L, Mormino E, Mahoney E, Lee AJ, Gao Y, Bilgel M, Goldstein D, Harrison T, **Engelman CD**, Saykin AJ, Whelan CD, Liu JZ, Jagust W, Albert M, Johnson SC, Yang H, Johnson K, Aisen P, Resnick SM, Sperling R, De Jager PL, The Alzheimer's Disease Neuroimaging Initiative, Schneider J, Bennett DA, Schrag M, Vardarajan B, Hohman TJ, Richard Mayeux. Common variants in *RBFox1*, an RNA binding protein, are associated with brain amyloidosis in early and preclinical Alzheimer's disease. *JAMA Neurol*. 2020 Jun 22;77(10):1-11. PMID: PMC7309575.
25. Hatchell KE, Lu Q, Mares JA, Michos ED, Wood AC, **Engelman CD**. Multi-ethnic analysis shows genetic risk and environmental predictors interact to influence 25(OH)D concentration and optimal vitamin D intake. *Genetic Epidemiology*. 2020 Mar;44(2):208-217. PMID: PMC7028464.
26. Hatchell KE, Lu Q, Hebring SJ, Michos ED, Wood AC, **Engelman CD**. Ancestry-specific polygenic scores and SNP heritability of 25(OH)D in African- and European-ancestry populations. *Hum Genet*. 2019 Oct;138(10):1155-1169. PMID: PMC7041489.

27. Darst BF, Lu Q, Johnson SC, **Engelman CD**. Integrated analysis of genomics, longitudinal metabolomics, and Alzheimer's risk factors among 1,111 cohort participants. *Genetic Epidemiology*. 2019 Sep;43(6):657-674. PMID: PMC6687539.
***Figure from publication selected as issue cover**
***Top 10% most downloaded paper among work published between January 2018 and December 2019.**
28. Vasiljevic E, Ye Z, Pavelec DM, Darst BF, **Engelman CD**, Baker MW, Carrier frequency estimation of Zellweger spectrum disorder using ExAC database and bioinformatics tools. *Genetics in Medicine*. 2019 Sep;21(9):1969-1976. PMID: PMC7171923.
29. Erickson CM, Schultz SA, Oh JM, Darst BF, Ma Y, Norton DL, Betthausen TJ, Gallagher CL, Carlsson CM, Bendlin BB, Asthana S, Hermann BP, Sager MA, Blennow K, Zetterberg H, **Engelman CD**, Christian BT, Johnson SC, Dubal DB, Okonkwo OC. *KLOTHO* heterozygosity attenuates *APOE4*-related amyloid burden in preclinical AD. *Neurology*. 2019 Apr 16;92(16):e1878-e1889. PMID: PMC6550504.
30. Darst BF, Kosciak RL, Hogan KJ, Johnson SC, **Engelman CD**, Longitudinal plasma metabolomics of aging and sex. *Aging*. 2019 Feb 24;11(4):1262-1282. PMID: PMC6402508.
31. Kosciak RL, Norton DL, Allison SL, Jonaitis EM, Clark LR, Mueller KD, Hermann BP, **Engelman CD**, Gleason CE, Sager MA, Chappell RJ, Johnson SC. Characterizing the effects of sex, *APOE* $\epsilon 4$, and literacy on mid-life cognitive trajectories: Application of Information-Theoretic model averaging and multi-model inference techniques to the Wisconsin Registry for Alzheimer's Prevention Study. *Journal of the International Neuropsychological Society*. 2019 Feb;25(2):119-133. PMID: PMC6374172.
32. Vogt, NM, Romano KA, Darst BF, **Engelman CD**, Johnson SC, Carlsson CM, Asthana S, Blennow K, Zetterberg H, Bendlin BB, Rey FE. The gut microbiota-derived metabolite trimethylamine *N*-oxide is elevated in Alzheimer's disease. *Alzheimer's Research & Therapy*. 2018 Dec 22;10(1):124. PMID: PMC6303862.
33. Darst BF, **Engelman CD**, Tian Y, Lorenzo Bermejo J. Data mining and machine learning approaches for the integration of genome-wide association and methylation data: methodology and main conclusions from GAW20. *BMC Genetics*. 2018 Sep 17;19(Suppl 1):76. PMID: PMC6157271.
34. Darst BF, Malecki KC, **Engelman CD**. Using recursive feature elimination in random forest to account for correlated variables in high dimensional data. *BMC Genetics* 2018 Sep 17;19(Suppl 1):65. PMID: PMC6157185.
35. **Engelman CD**, Darst BF, Bilgel M, Vasiljevic E, Kosciak RL, Jedynek BM, Johnson SC. The effect of rare variants in *TREM2* and *PLD3* on longitudinal cognitive function in the Wisconsin Registry for Alzheimer's Prevention. *Neurobiology of Aging* 2018 Jun;66:177. PMID: PMC5924624.
36. Hong J*, Hatchell KE*, Bradfield JP, Andrew B, Alessandra C, Chao-Qiang L, Langefeld CD, Lu L, Lu Y, Lutsey PL, Musani SK, Nalls MA, Robinson-Cohen C, Roizen JD, Saxena R, Tucker KL,

Ziegler JT, Arking DE, Bis JC, Boerwinkle E, Bottinger EP, Bowden DW, Gilsanz V, Houston DK, Kalkwarf HJ, Kelly A, Lappe JM, Liu Y, Michos ED, Oberfield SE, Palmer ND, Rotter JI, Sapkota B, Shepherd JA, Wilson JG, Basu S, de Boer IH, Divers J, Freedman BI, Grant SFA, Hakanarson H, Harris TB, Kestenbaum BR, Kritchevsky SB, Loos RJJ, Norris JM, Norwood AF, Ordovas JM, Pankow JS, Psaty BM, Sanhgera DK, Wagenknecht LE, Zemel BS, Meigs J, Dupuis J, Florez JC, Wang T, Liu CT**, **Engelman CD****, Billings LK**. Trans-ethnic evaluation identifies novel low frequency loci associated with 25-hydroxyvitamin D concentrations. *J Clin Endocrinol Metab* 2018 Apr 1;103(4):1380-1392. PMID: PMC6276579

***Joint first authors; **Joint senior authors (consortium paper)**

37. Zuelsdorff ML, Kosciak RL, Okonkwo OC, Peppard PE, Hermann BP, Sager MA, Johnson SC, **Engelman CD**. Reliability of a novel social activity questionnaire. *Journal of Aging and Health* 2018 Feb;30(2):305-320. PMID: PMC5449232.
38. Zuelsdorff ML, Kosciak RL, Okonkwo OC, Peppard PE, Hermann BP, Sager MA, Johnson SC, **Engelman CD**. Social support and verbal interaction are differentially associated with cognitive function in midlife and older age. *Aging, Neuropsychology and Cognition* 2017 Dec 15:1-17. PMID: PMC6003840
39. Johnson SC, Kosciak RL, Jonaitis EM, Clark LR, Mueller KD, Berman SE, Bendlin BB, **Engelman CD**, Okonkwo OC, Hogan KJ, Asthana S, Carlsson CM, Hermann BP, Sager MA. The Wisconsin Registry for Alzheimer's Prevention: A review of findings and current directions. *Alzheimers Dement (Amst)*. 2017 Dec 8; 10:130-142. PMID: PMC5755749.
40. Boots EA, Schultz SA, Clark LR, Racine AM, Darst BF, Kosciak RL, Carlsson CM, Gallagher CL, Hogan KJ, Bendlin BB, Asthana S, Sager MA, Hermann BP, Christian BT, Dubal DB, **Engelman CD**, Johnson SC, Okonkwo OC. *BDNF* Val66Met predicts cognitive decline in the Wisconsin Registry for Alzheimer's Prevention. *Neurology* 2017 May 30;88(22):2098-2106. PMID: PMC5447398.
41. Schultz SA, Boots EA, Darst BF, Zetterberg H, Blennow K, Edwards DF, Kosciak RL, Carlsson CM, Gallagher CL, Bendlin BB, Asthana S, Sager MA, Hogan KJ, Hermann BP, Cook DB, Johnson SC, **Engelman CD**, Okonkwo OC. Cardiorespiratory fitness alters the influence of a polygenic risk score on biomarkers of AD. *Neurology* 2017 Apr 25;88(17):1650-1658. PMID: PMC5405766.
42. Clark LR, Berman SE, Rivera-Rivera LA, Hoscheidt SM, Darst BF, **Engelman CD**, Rowley HA, Carlsson CM, Asthana S, Turski P, Wieben O, Johnson SC. Macrovascular and microvascular cerebral blood flow in adults at risk for Alzheimer's disease. *Alzheimers Dement (Amst)* 2017 Jan 23;7:48-55. PMID: PMC5318539.
43. Darst BF, Kosciak RL, Racine AM, Oh JM, Krause RA, Carlsson CM, Zetterberg H, Blennow K, Christian BT, Bendlin BB, Okonkwo OC, Hogan KJ, Hermann BP, Sager MA, Asthana S, Johnson SC, **Engelman CD**. Pathway-specific polygenic risk scores as predictors of amyloid- β deposition and cognitive function in a sample at increased risk for Alzheimer's disease. *J Alzheimers Dis* 2017;55(2):473-484. PMID: PMC5123972.

44. Sippy R, Kolesar JM, Darst BF, **Engelman CD**. Prioritization of family member sequencing for the detection of rare variants. *BMC Proceedings* 2016 Oct 18;10(Suppl 7):227-231. PMID: PMC5133500.
45. Darst BF, **Engelman CD**. Transmission and decorrelation methods for detecting rare variants using sequencing data from related individuals. *BMC Proceedings* 2016 Oct 18;10(Suppl 7):203-207. PMID: PMC5133523.
46. **Engelman CD**, Greenwood CMT, Bailey JN, Cantor RM, Kent JW, Konig IR, Bermejo JL, Melton PE, Santorico SA, Schillert A, Wijsman EM, MacCluer JW, Almasy L. Genetic Analysis Workshop 19: methods and strategies for analyzing human sequence and gene expression data in extended families and unrelated individuals. *BMC Proceedings* 2016 Oct 18;10(Suppl 7):67-70. PMID: PMC5133501.
47. Clark LR, Kosciak RL, Nicholas CR, Okonkwo OC, **Engelman CD**, Bratzke LC, Hogan KJ, Mueller KD, Bendlin BB, Carlsson CM, Asthana S, Sager MA, Hermann BP, Johnson SC. Mild Cognitive Impairment in Late Middle Age in the Wisconsin Registry for Alzheimer's Prevention Study: Prevalence and Characteristics Using Robust and Standard Neuropsychological Normative Data. *Arch Clin Neuropsychol*. 2016 May 8 (Epub ahead of print). PMID: PMC5088607.
48. Clark LR, Racine AM, Kosciak RL, Okonkwo OC, **Engelman CD**, Carlsson CM, Asthana S, Bendlin BB, Chappell R, Nicholas CR, Rowley HA, Oh JM, Hermann BP, Sager MA, Christian BT, Johnson SC. Beta-amyloid and cognitive decline in late middle age: Findings from the Wisconsin Registry for Alzheimer's Prevention study. *Alzheimers Dement*. 2016 Jul;12(7):805-14. PMID: PMC4947439.
49. Givens ML, Malecki KC, Peppard PE, Palta M, Said A, **Engelman CD**, Walsh MC, Nieto FJ. Shiftwork, Sleep Habits, and Metabolic Disparities: Results from the Survey of the Health of Wisconsin. *Sleep Health* 2015 Jun;1(2):115-120. PMID: PMC4755509.
50. Millen AE, Meyers KJ, Liu Z, **Engelman CD**, Wallace RB, LeBlanc ES, Tinker LF, Iyengar SK, Robinson JG, Sarto GE, Mares JA. Association Between Vitamin D Status and Age-Related Macular Degeneration by Genetic Risk. *JAMA Ophthalmol*. 2015 Oct 1;133(10):1171-9. PMID: PMC4841267.
51. Darst BF, Kosciak RL, Hermann BP, La Rue A, Sager MA, Johnson SC, **Engelman CD**. Heritability of Cognitive Traits Among Siblings with a Parental History of Alzheimer's Disease. *J Alzheimers Dis* 2015 Jan; 45(4): 1149-55. PMID: PMC4398625.
52. Malecki KC, **Engelman CD**, Peppard PE, Nieto FJ, Grabow ML, Bernardinello M, Bailey E, Walsh MC, Lo J, Martinez-Donate A. The Wisconsin Assessment of the Social and Built Environment (WASABE). A Multi-dimensional Objective Audit Instrument for Examining Neighborhood Effects on Health. *BMC Public Health* 2014 Nov 13; 14: 1165. PMID: PMC4289353.
53. Sung YJ, Korthauer KD, Swartz MD, **Engelman CD**. Methods for collapsing multiple rare variants in whole genome sequence data. *Genet Epidemiol* 2014 Aug; 38(S1): S13-20. PMID: PMC4558905.

54. Yao C, Leng N, Weigel KA, Lee KE, **Engelman CD**, Meyers KJ. Prediction of genetic contributions to complex traits using whole genome sequencing data. *BMC Proceedings* 2014 Jun; 8(Suppl 1): S68. PMID: PMC4143683.
55. Bickeböllner H, Bailey JN, Beyene J, Cantor RM, Cordell HJ, Culverhouse RC, **Engelman CD**, Fardo DW, Ghosh S, König IR, Lorenzo Bermejo J, Melton PE, Santorico SA, Satten GA, Sun L, Tintle NL, Ziegler A, MacCluer JW, Almasy L. Genetic Analysis Workshop 18: Methods and strategies for analyzing human sequence and phenotype data in members of extended pedigrees. *BMC Proceedings* 2014 Jun; 8(Suppl 1): S1. PMID: PMC4143625.
56. **Engelman CD**, Bo R, Zuelsdorff M, Steltenpohl H, Kirby T, Nieto FJ. Epidemiologic study of the C-3 epimer of 25-hydroxyvitamin D₃ in a population-based sample. *Clin Nutr* 2014 Jun; 33(3): 421-5. PMID: PMC3884039.
57. **Engelman CD**, Kosciak RL, Jonaitis EM, Hermann BP, La Rue A, Sager MA. Investigation of *TREM2* variant in the Wisconsin Registry for Alzheimer's Prevention. *Neurobiology of Aging* 2014 Jun; 35(6): 1252-4. PMID: PMC3961539.
58. Litzelman K, Witt WP, Gangnon RE, Nieto FJ, **Engelman CD**, Mailick MR, Skinner HG. Association between Informal Caregiving and Cellular Aging in the Survey of the Health of Wisconsin: The Role of Caregiving Characteristics, Stress, and Strain. *Am J Epidemiol* 2014 Jun; 179(11): 1340-52. PMID: PMC4036217.
59. Warren Andersen S, Trentham-Dietz A, Gangnon RE, Hampton JM, Figueroa JD, Skinner HG, **Engelman CD**, Klein BE, Titus LJ, Egan KM, Newcomb PA. Reproductive windows, genetic loci, and breast cancer risk. *Ann Epidemiol* 2014 May; 24(5): 376-82. PMID: PMC4164346.
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Related Macular Degeneration in the Carotenoids in Age-Related Eye Disease Study (CAREDS). *Invest Ophthalmol Vis Sci* 2014 Jan; 55(1): 587-99. PMID: PMC3908680.

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90. **Engelman CD**, Brady HL, Baron AE, Norris JM. Comparison between two analytic strategies to detect linkage to obesity with genetically determined age of onset: the Framingham Heart Study. *BMC Genetics* 2003; 4(S1): S90: 1-5. PMID: PMC1866531
91. James K, Weitzel L, **Engelman CD**, Zerbe G, Norris JM. Genome scan linkage results for longitudinal systolic blood pressure phenotypes in subjects from the Framingham Heart Study. *BMC Genetics* 2003; 4(S1): S83: 1-5. PMID: PMC1866523
92. Parikh CR, McCall D, **Engelman C**, Schrier RW. Congenital renal agenesis: case-control analysis of birth characteristics. *Am J Kidney Dis* 2002; 39(4): 689-94.

INVITED TALKS

1. Polygenic risk for Alzheimer's disease. Precision Medicine Symposium, Madison, Wisconsin, October 12, 2022.
2. Studying Multi-omics in a Longitudinal Context. NIH NHGRI Multi-omics in Health and Disease Workshop, virtual due to COVID-19, June 17-18, 2021.

3. Integration of Genomics and Metabolomics for Precision Health. Nutrition Sciences Seminar Series, Madison, Wisconsin, September 20, 2018.
4. Big Data and Alzheimer's Disease. Computation and Informatics in Biology and Medicine Seminar Series, Madison, Wisconsin, November 1, 2016.
5. Genetics of Alzheimer's Disease: A local perspective. ADRC Annual Community Lecture, Madison, Wisconsin, October 25, 2016.
6. The Genetics of Alzheimer's Disease. Population Health Sciences Seminar Series, Madison, Wisconsin, September 26, 2016. <http://videos.med.wisc.edu/videoInfo.php?videoid=69581>
7. Mendelian Randomization: Principles and Applications in Nutritional Sciences. American Society for Nutrition (ASN) Scientific Sessions and Annual Meeting, San Diego, California, April 3, 2016.
8. The Genetic Architecture of Alzheimer's Disease. Center for Predictive Computational Phenotyping, University of Wisconsin, Madison, Wisconsin, August 25, 2015.
9. Genetics and Race in Vitamin D Deficiency. Center for Demography of Health and Aging Training Seminar, University of Wisconsin, Madison, Wisconsin, December 12, 2014.
10. Data in the classroom: Engaging students with disciplinary practice. Institute for Biology Education panel discussion, University of Wisconsin, Madison, Wisconsin, April 14, 2014.
11. Navigating GINA and Genetic Questions from Study Participants. Wisconsin Alzheimer's Institute and Alzheimer's Disease Research Center, University of Wisconsin, Madison, Wisconsin, March 28, 2014.
12. The Genetic Architecture of Alzheimer's Disease. Genetics Colloquium, Laboratory of Genetics, University of Wisconsin, Madison, Wisconsin, September 11, 2013.
13. Influence of Gene Interactions on Cognitive Function and Alzheimer's Disease. Alzheimer's Disease Research Center Seminar Series, Madison, Wisconsin, April 5, 2013.
14. Unraveling the Genetic and Environmental Predictors of Vitamin D. Population Health Sciences Seminar Series, Madison, Wisconsin, November 19, 2012. <http://videos.med.wisc.edu/videos/41764>
15. Genetics and Gene-Environment Interaction. RWJ Scholar Seminar Series, Department of Population Health Sciences, University of Wisconsin School of Medicine and Public Health, October 22, 2012.
16. Ethical Challenges in Human Genetics Research. Ethical Concerns and the Future of Human Genetics panel discussion, Department of Genetics Annual Retreat, Madison, Wisconsin, October 5, 2012.
17. Unraveling the Genetic and Environmental Predictors of Vitamin D. Computation and Informatics in Biology and Medicine Seminar Series, Madison, Wisconsin, April 19, 2011.

18. Vitamin D Deficiency: Causes and Implications. Department of Epidemiology, Colorado School of Public Health, Aurora, Colorado, March 8, 2011.
19. Genetic Factors in Cardiometabolic Risk. 11th Annual Cardiology Colloquium presented by Kettering Cardiovascular Institute, Dayton, Ohio, February 16, 2011.
20. Genetic Risk Factors for Diabetes and Obesity. Nutrition Sciences Seminar Series, Madison, Wisconsin, September 30, 2010.
21. Survey of the Health of Wisconsin (SHOW). Clinical Trials Management Systems and Population Sciences Special Interest Group Meeting organized by the National Cancer Institute, Madison, Wisconsin, July 28, 2010.
22. Potholes and Progress on the Road to Personalized Medicine. Population Health Sciences 50th Anniversary Symposium, Madison, Wisconsin, August 27, 2009.
23. Appropriate Integration of Human Genome Discoveries into Health Care. RWJ Scholar Seminar Series, Department of Population Health Sciences, University of Wisconsin School of Medicine and Public Health, October 27, 2008.

GRANT SUPPORT: CURRENT

Multi-cohort study of factors that influence Alzheimer's disease biomarker and dementia timing

Sponsor: NIH, R01AG080766

Project period: 02/01/23 – 11/30/27

Direct costs: \$2,498,655

PI: Tobey J Betthausen

Role: Co-Investigator

This study will identify common factors across multiple biomarkers that influence the timing and trajectories of amyloid, tau and neurodegeneration biomarkers and the time from amyloid onset to dementia onset in Alzheimer's disease.

Genomic and Metabolomic Data Integration in a Longitudinal Cohort at Risk for Alzheimer's Disease

Sponsor: NIH, R01 AG054047

Project period: 08/15/16 – 05/31/27

Direct costs: \$2,446,463

Role: Principal Investigator

The goal of this study, GeneRations Of WRAP (GROW), is to determine the role of genomics, metabolomics, and interactions between the two in A β deposition, cognitive decline, and resilience in individuals at increased risk for Alzheimer's disease (AD) due to a parental history of AD diagnosed by age 75.

Researching Epigenetics, Weathering, Aging & Residential Disadvantage (REWARD)

Source: NIH, R01 AG061080

Total direct costs: \$3,144,801

Project period: 09/15/2019 – 05/31/2024

PIs: K. Malecki and M. Engelman

Role: Co-Investigator

Effort: 0.24 calendar months

The goal of this project is to understand how individual and contextual disadvantages shape health disparities via epigenetic signatures.

Multisensory, Motor, and Biomarker Changes in Aging and Preclinical Alzheimer's Disease

Source: NIH, R01 AG066837

Total direct costs: \$1,954,535

Project period: 09/01/2020 – 08/31/2023

PI: N. Merten

Role: Co-Investigator

Effort: 0.6 calendar months

The objective of this project is to study the impact of aging changes in sensory function (hearing, olfaction, vision, and taste) and motor function on the 10-yr risk of pre-clinical AD in middle-aged adults from the longitudinal Beaver Dam Offspring Study.

Identifying Metabolomic Risk Factors in Plasma and Cerebrospinal Fluid for Alzheimer's Disease

Source: NIH, R21 AG067092

Total direct costs: \$500,000

Project period: 09/01/2020 – 08/31/2023

PI: Q. Lu

Role: Co-Investigator

Effort: 0.6 calendar months

The main objective of this research is to apply novel statistical methods developed by the investigators to understand the genetic architecture of plasma and CSF metabolome in older adults, and identify metabolites associated with Alzheimer's disease risk.

Wisconsin Registry for Alzheimer's Prevention: Biomarkers for Preclinical AD

Sponsor: NIH, R01 AG027161-06A1

Project period: 08/01/2013 – 05/31/2023

Direct costs: \$1,969,000

Role: Co-Investigator (Johnson, PI)

WRAP is an observational longitudinal cohort of people enriched with risk for AD and serves as a registry for linked studies. Goals are to identify the disease pre-symptomatically, and health and lifestyle factors that confer risk or resilience. Outcomes include cognition and AD biomarkers of CSF and PET.

GRANT SUPPORT: RECENTLY COMPLETED

African Americans Fighting Alzheimer's in Midlife (AA-FAiM)

Sponsor: NIH, R01 AG054059-01

Project period: 07/01/16 – 06/30/22

Direct costs: \$2,499,975

Role: Co-Investigator (Gleason, PI)

In this study, we will test the overarching hypothesis that preclinical Alzheimer's disease pathology (inferred from neuroimaging and cerebrospinal fluid) and longitudinal cognitive decline will be greater in cognitively healthy, middle-aged African Americans with (1) high cardiovascular disease burden (estimated with ASCVD score), (2) with low psychological well being (measured with the NIH Toolbox Emotion battery), and (3) from disadvantaged neighborhoods (measured with an index of neighborhood disadvantage, the Area Deprivation Index (ADI)).

Survey of the Health of Wisconsin (SHOW)

Sponsor: Wisconsin Partnership Program Partnership Education and Research Committee (PERC; MSN102604)

Project period: 07/01/06 – 06/30/22

Direct costs: \$4,200,000

Role: Co-Investigator (Malecki, PI)

The Survey of the Health of Wisconsin (SHOW) is creating a permanent database to track trends in health indicators, support research on the multiple determinants of health and health disparities, facilitate population health data dissemination and educational initiatives, and provide a flexible platform and infrastructure that supports ancillary studies.

Robust Mendelian randomization methods to identify causal risk factors for Alzheimer's disease

Sponsor: UW Office of the Vice Chancellor for Research and Graduate Education Data Science Initiative

Project period: 07/01/18 – 06/30/2020

Direct costs: \$249,374

Role: Co-Investigator (Kan and Lu, co-PIs)

Macular Pigment in Aging and Disease

Sponsor: NIH, R01 EY025292-01

Project period: 06/01/15 – 05/31/20

Direct costs: \$3,039,628

Role: Co-Investigator (Mares, PI)

Genome-wide array in WRAP

Source: *Swoop-Med*

Total direct costs: \$225,000

Project period: 12/26/17 – 06/25/19

PI: C. Engelman

Effort: 0 calendar months

Personalized Vitamin D Supplementation in European and African Americans

Sponsor: Wisconsin Partnership Program Education and Research Committee – Collaborative Health Sciences Program

Project period: 02/01/15 – 01/31/19

Direct costs: \$499,997

Role: Principal Investigator

A Molecular Atlas of Alzheimer's Disease Stages

Sponsor: UW2020 WARF Discovery Initiative

Project period: 04/01/16 – 03/31/18

Direct costs: \$395,395

Role: Co-Investigator (Johnson, PI)

MENTORING

Faculty (Promotions Oversight Committee)

2022-present Chair, Natascha Merten, Ph.D., Assistant Professor of Population Health Sciences

2018-present Member, Shaneda Warren Andersen, Ph.D., Assistant Professor of Population Health Sciences

2016-2021 Member, Amy Fowler, MD, Ph.D., Assistant Professor of Radiology

Faculty (other mentoring)

2019-present Kimberly Mueller, Ph.D., Assistant Professor of Communication Sciences and Disorders (Women Faculty Mentoring Program mentor)

2018-present Katherine Schaumberg, Ph.D., Assistant Professor of Psychiatry (K-award primary mentor)

2018-2020 Karen Hansen, MD, Associate Professor of Medicine (Mid-career Mentoring Program)

Post-doctoral (primary mentor)

2018-2021 Yuetiva Robles (Deming), Ph.D. (Washington University School of Medicine)

2009-2011 Kristin Meyers, M.P.H., Ph.D. (University of Michigan)
Current Position: Global Patient Safety Senior Research Scientist,
Pharmacoepidemiology at Eli Lilly, Indianapolis, Indiana

Doctoral (chair of committee)

2022-present Jerome Choi
Program: Epidemiology

2021-present Yuexuan Xu
Program: Population Health

2021-present Diandra Fields
Program: Nutritional Sciences

2019-2022 Eva Vasiljevic
Program: Population Health
Title: Genetic and environmental determinants of Alzheimer's disease across the life course
Current Position: Post-doctoral Research Fellow, Centers for Disease Control and Prevention

2019-2021 Ruocheng Dong, Ph.D.

Program: Epidemiology
Title: A better understanding of Alzheimer's disease pathology by incorporating modifiable risk factors and multi-omics data
Current Position: Post-doctoral Research Fellow, Stanford University

2017-2020 Danny Panyard, Ph.D.
Program: Epidemiology
Title: Leveraging Genomic Data to Study the Cerebrospinal Fluid Metabolome in Brain-Related Phenotypes
Current Position: Post-doctoral Research Fellow, Stanford University

2016-2019 Kathryn Hatchell, Ph.D.
Program: Population Health
Title: Towards precision medicine management of vitamin D inadequacy: Development of ancestry-specific polygenic risk scores and exploration of genetic-environmental interactions affecting vitamin D concentrations
Current Position: Clinical Bioinformatics Team Lead, Invitae

2015-2018 Burcu Darst, Ph.D.
Program: Epidemiology
Title: The Integration of Metabolomic and Genomic Data in Alzheimer's Disease
Current Position: Assistant Professor, Public Health Sciences Division, Fred Hutch Cancer Research Center

2012-2016 Megan Zuelsdorff, M.S., Ph.D.
Program: Population Health
Title: Sociobehavioral and Psychobiological Mechanisms in Cognitive Aging
Current Position: Assistant Professor, School of Nursing, University of Wisconsin-Madison

Doctoral (committee member)

2020-present Emily Hilton, M.S.
Program: Clinical Psychology
Title: Comparing genomic and phenotypic structures for common early adolescent psychopathology symptoms, with prediction from childhood temperament

2018-2021 Emily Binversie, M.S., D.V.M.
Program: Comparative Biomedical Sciences
Title: Canine Genomic Structural Variation and Orthopaedic Disease Investigation

2017-2021 Tom Lawler
Program: Nutritional Sciences
Title: Dietary and genetic determinants of macular pigment density in the fovea and relevance for primary open-angle glaucoma in a study of older-adult women

2017-2019 Lauren Baker, M.S., D.V.M.

- Program: Comparative Biomedical Sciences
Title: Genetic Dissection of Anterior Cruciate Ligament Rupture in the Dog Model
- 2016-2017 Oyewale Shiyabola
Program: Epidemiology
Title: Optimizing health among ductal carcinoma in situ survivors
- 2012-2014 Gota Morota, Ph.D.
Program: Dairy Science: Animal Breeding and Genetics
Title: Whole-genome prediction of complex traits using kernel methods
- 2012-2013 Margarete Wichmann, Ph.D.
Program: Population Health
Title: Inflammation and cognitive impairment in Beaver Dam, WI
- 2011-2013 Doug Bjelland, Ph.D.
Program: Dairy Science: Animal Breeding and Genetics
Title: Novel methods for calculating and comparing inbreeding derived from dense SNP marker panels in domestic cattle
- 2010-2012 Shaneda Warren Andersen, M.S., Ph.D.
Program: Population Health
Title: Hormonal Factors and Breast Cancer Loci
- 2009-2011 Wenjun Zhong, Ph.D.
Program: Population Health
Title: Vascular Measurements and Cognitive Function
- 2008-2011 Amy Jo Haavisto Kind, M.D., Ph.D.
Program: Population Health
Title: Quality, Accuracy and Potential Impact of the Hospital Discharge Summary for Patients Discharged to Sub-acute Care Facilities
- 2008-2011 Kendra A. Young, Ph.D.
Program: Epidemiology at the Colorado School of Public Health
Title: The Role of Vitamin D in Adiposity and Non-Alcoholic Fatty Liver Disease

Master's (chair of committee)

- 2021-present Andrew Wiese
Program: Population Health
- 2018-2019 Marlina Orthlieb M.S., C.G.C.
Program: Genetic Counseling
Title: Polygenic Risk Scores and Biomarkers in Alzheimer's Disease
- 2017 Alexandra Bryant, MPH

Program: Public Health
Title: Community Engagement to Diversify Clinical Research: Meet the People Where They Are

- 2014-2015 Jill Kolesar, PharmD
Program: Epidemiology
Title: A Potential Genetic Signature to Predict Non Small Cell Lung Cancer Susceptibility in Smokers
- 2014-2015 Angela Forgues, M.S.
Program: Population Health
Title: Immune System Genetics, Stress, and Cognitive Function: Gene-Environment Interaction in the Wisconsin Registry for Alzheimer's Prevention (WRAP) Study
- 2013-2014 Karen Lazar, M.S.
Program: Population Health
Title: Association of Cholesterol and Cholesterol Metabolism Genes with Cognitive Function in the Wisconsin Registry for Alzheimer's Prevention
- 2009-2010 Megan Zuelsdorff, M.S.
Program: Population Health
Title: The role of social interaction and perceived support in preservation of cognitive function
- 2009-2010 Liga Bivina, M.S., C.G.C.
Program: Genetic Counseling
Title: Association between vitamin D binding protein (*DBP*) SNPs, rs4588 and rs7041, and hypertension in Hispanics and African Americans of the IRAS Family Study
- 2007-2008 Kimberly (Brown) Schmitz, M.S.
Program: Population Health
Title: Association of vitamin D and vitamin D-processing genes with blood pressure in Hispanic and African Americans: an ancillary study to the Insulin Resistance Atherosclerosis (IRAS) Family Study

Master's (committee member)

- 2020-2021 Julia Carlson
Program: Population Health
- 2015-2016 Emily, Binversie, M.S., D.V.M.
Program: Doctor of Veterinary Medicine
Title: Canine Genomic Structural Variation and Orthopaedic Disease Investigation
- 2013 Erin Bergman, M.S.
Program: Population Health
Title: Predictors of Discordance Between Perceived and Objective Neighborhood Data

- 2012-2013 Donny Xiong, M.P.H.
Program: Public Health
Title: Genetic Research with Hmong-ancestry Populations: Lessons from the Literature and a Pilot Study
- 2011-2012 Milena Bernardinello, M.S.
Program: Population Health
Title: Innovative Data Collection Method for the Assessment of the Social and Built Environment in Wisconsin: The WASABE Project and Walkability
- 2010-2011 Anne Atkins, M.P.H.
Program: Public Health
Title: T-cell Receptor Excision Circles of Newborns Are Associated with Newborns' Gestational Age: Data from Wisconsin Newborn Screening for SCID
- 2008-2009 Samantha Bromfield, M.S., Ph.D.
Program: Population Health
Title: Predictors of HIV Infection in Pregnant Women in Kampala, Uganda
- 2007-2008 Shaneda Warren Andersen, M.S., Ph.D.
Program: Population Health
Title: Breast cancer survival in relation to genetic polymorphisms in *CYP1A1*, *CYP1A2*, *CYP1B1*, *IL6R* AND *TNF*

Graduate Independent Reading Supervisor

- Summer 2019 Keith Westpfahl
Topic: Polygenic risk scores
- Summer 2016 Danny Panyard
Topic: Genetic epidemiology
- Fall 2015 Kathryn Hatchell
Topic: Trans-ethnic Meta-analysis of Vitamin D Genome-wide Association Studies
- Spring 2015 Kathryn Hatchell
Topic: Use of Genetic Markers to Determine the role of Vitamin D in Cognitive Function and Decline
- Fall 2014 Burcu Darst and Jill Kolesar
Topic: Advanced topics in genetic epidemiology and statistical genetics
- Summer 2014 Jill Kolesar
Topic: Genetic epidemiology
- Spring 2013 Donny Xiong
Topic: Genetic epidemiology: Principal components analysis to determine genetic ancestry
- Spring 2009 Justin Lo
Topic: Statistical genetics: Use of three machine learning approaches to explore gene-gene and gene-environment interactions
- Summer 2008 Samantha Bromfield, M.S.

Fall 2007 Topic: Chronic disease epidemiology
Claudia Pereira, Ph.D.
Topic: Economic factors in genetic innovation

Hilldale Undergraduate/Faculty Research Fellowship Award Mentor

2012-2014 Taylor Kirby
Topic: Solar radiation and 25-hydroxyvitamin D concentration
Current Position: Software Quality Assurance, Epic, Verona, WI

Undergraduate Research Mentor

2022-present Hajar Bendada
2022-present Maisha Islam
2021 Gwen Kelley
2019-2022 Autumn Morrow
2019 Dong Fang
2019-2022 Jamila Hamdan
2019-2021 Callie Schiesl
2019 Roy Kim
2018-2020 Katherine Brenneke
2016-2019 Sarah Heyer
2015-2017 Sydney Harris
Fall 2014 Maisie Tolzmann
2012-2014 Hilary Steltenpohl
Fall 2012 Courtney Holdt
2010-2012 Somsak Vue
2008-2010 Lesli Kiedrowski, M.S., M.P.H.
2008-2009 Lindsay Bohnert, M.A.
2008-2009 Emily Phelps

Summer Science Institute Research Mentor

2009 Lesli Kiedrowski (undergraduate student mentor), Santiago Barajas (high school student), Que Xiong (high school student)
Topic: Inter-rater Reliability of the Wisconsin Assessment of the Social and Built Environment (WASABE) Instrument

Doctoral Academic Advisor

2020-present Jerome Choi
2019-present Yuexuan Xu
2017-2020 Danny Panyard
2017-2021 Ruocheng Dong
2015-2022 Eva Vasiljevic
2015- 2019 Kathryn Hatchell
2013-2018 Burcu Darst
2010-2016 Megan Zuelsdorff, M.S.
2009-2010 Christine Muganda

Master's Academic Advisor

2019-present	Andrew Wiese
2019-2020	Julia Carlson
2012-2015	Angela Forgues
2012-2014	Karen Lazar
2012-2013	Alex Binder
2008-2009	Megan Zuelsdorff
2007-2009	Samantha Bromfield

TEACHING

Course Development

2009	Public Health Genomics – POP HLTH 888 – 1 credit
2008	Analytic Methods in Genetic Epidemiology – POP HLTH 904 Section 003 – 3 credits
2008	Genetic Epidemiology – POP HLTH 849 – 3 credits

Course Director

Fall 2022	Genetic Epidemiology – POP HLTH 849 – 3 credits – 8 students (7 graduate, 1 faculty)
Spring 2022	Public Health Genomics – POP HLTH 636 – 1 credit – 19 students (7 undergraduate, 12 graduate/professional)
Spring 2021	Introduction to Epidemiology – NUTR SCI 375 – 3 credits – 129 undergraduate students
Spring 2021	Public Health Genomics – POP HLTH 888 – 1 credit – 46 students (13 undergraduate, 7 graduate/professional, 24 medical students, and 2 auditors)
Fall 2020	Genetic Epidemiology – POP HLTH 849 – 3 credits – 16 graduate students
Spring 2020	Introduction to Epidemiology – NUTR SCI 375 – 3 credits – 11 undergraduate students
Spring 2020	Public Health Genomics – POP HLTH 888 – 1 credit – 27 students (11 undergraduate, 10 graduate/professional, and 6 fourth year medical students)
Fall 2019	Genetic Epidemiology – POP HLTH 849 – 3 credits – 13 graduate and medical students, and faculty
Spring 2019	Public Health Genomics – POP HLTH 888 – 1 credit – 22 students (13 undergraduate and 8 graduate/professional students)
Spring 2018	Public Health Genomics – POP HLTH 888 – 1 credit – 17 undergraduate, graduate, medical, and pharmacy students, and faculty
Fall 2017	Genetic Epidemiology – POP HLTH 849 – 3 credits – 12 graduate students
Spring 2017	Public Health Genomics – POP HLTH 888 – 1 credit – 8 undergraduate, graduate, and medical students, and faculty
Fall 2016	Analytic Methods in Genetic Epidemiology – POP HLTH 904 Section 003 – 3 credits – 5 graduate students
Spring 2016	Public Health Genomics – POP HLTH 650 Section 023 – 1 credit – 15 undergraduate, graduate, and pharmacy students
Fall 2015	Genetic Epidemiology – POP HLTH 904 Section 102 – 3 credits – 11 graduate students and academic staff
Summer 2015	Public Health Genomics – POP HLTH 650 Section 023 – 1 credit – 11 graduate and medical students

- Fall 2014 Graduate Research Seminar – POP HLTH 820 – 1 credit – 11 graduate students (Co-director)
- Summer 2014 Analytic Methods in Genetic Epidemiology – POP HLTH 904 Section 003 – 3 credits – 5 graduate students
- Fall 2013 Genetic Epidemiology – POP HLTH 904 Section 102 – 3 credits – 13 graduate students
- Fall 2012 Genetic Epidemiology – POP HLTH 904 Section 102 – 3 credits – 18 graduate students, visiting scholars, academic staff, and faculty
- Summer 2012 Analytic Methods in Genetic Epidemiology – POP HLTH 904 Section 003 – 2 credits – 5 graduate students and academic staff
- Summer 2011 Public Health Genomics – POP HLTH 650 Section 023 – 1 credit – 13 undergraduate and graduate students
- Fall 2010 Genetic Epidemiology – POP HLTH 904 Section 002 – 2 credits – 17 graduate students
- Summer 2010 Analytic Methods in Genetic Epidemiology – POP HLTH 904 Section 003 – 2 credits – 17 graduate students, academic staff, and visiting scientists
- Fall 2009 Genetic Epidemiology – POP HLTH 904 Section 002 – 2 credits – 8 graduate students and post-docs
- Summer 2009 Public Health Genomics – POP HLTH 650 Section 023 – 1 credit – 9 graduate students
- Fall 2008 Graduate Research Seminar – POP HLTH 820 – 1 credit – 8 graduate students (Co-director)
- Fall 2008 Genetic Epidemiology – POP HLTH 904 Section 002 – 2 credits – 13 graduate students
- Summer 2008 Analytic Methods in Genetic Epidemiology – POP HLTH 904 Section 003 – 2 credits – 10 graduate students, post-docs, and faculty
- Spring 2008 Genetic Epidemiology – POP HLTH 904 Section 002 – 2 credits – 15 graduate students and post-docs
- Spring 2007 Graduate Research Seminar – POP HLTH 820 – 1 credit – 18 graduate students (Co-director)

Course Discussion Group Leader

- 2017 Patients, Professionalism and Public Health – MD Program – 30 Medical students
- 2007-2015 Principles of Population Medicine and Epidemiology – POP HLTH 717 – 2-10 sessions – 30 Medical students
- Fall 2003 Introduction to Epidemiology – PRMD 6630 – 6 sessions

Course Lecturer

- 2019-2020 Racial Health Disparities in Wisconsin – MED SC 622-911 – Precision Medicine (for all?)
- 2018 Contemporary Professional Issues in Genetic Counseling – MD GENET 708-737 – Public Health Genomics
- 2017-2020 Biology of Aging – Pathology 751 – Genome-wide Association Studies of Aging
- 2013-2019 Academic Methodologies and Resources for Genetic Counselors – MD GENET 739 – Genome-wide Association Studies
- 2013 Colloquium in Environmental Toxicology – MET 606 – Genetic and Environmental Correlates of Vitamin D
- 2012 Statistical Methods for Molecular Biology – STAT 877 – Genetic Epidemiology

- 2008-2011 Seminar in Genetics – MD GENET 993 – Genetic Epidemiology and Public Health Genomics
- 2008-2010 Population Health Sciences: Concepts and Methods – POP HLTH 375 –Genetics in Population Health
- 2008 Human Emphasis Group Graduate Student Seminar – NUTR SCI 881 – Basic Genetics and Genetic Association Studies
- 2008 Seminar in Animal Breeding: Statistical and Quantitative Genetics – AN SCI 951 – Genetic Epidemiology
- 2006-present Introduction to Epidemiology – POP HLTH 797 – Genetic Epidemiology
- 2005 Statistical Methods in Genetic Association – BIOS 6655 – Software
- 2003-2006 Advanced Epidemiology – PRMD 6632 – Genetic Study Designs Implementation of Family Based Tests for Association
- 2002, 04, 06 Methods in Genetic Epidemiology – PRMD 6639 – Basic Concepts in Genetics; Uses of Public Databases in Genetic Studies

SERVICE ACTIVITIES

State, National and International

- 2021 Chair, Scientific Program Committee, International Genetic Epidemiology Society (IGES)
- 2019-2021 Member, Scientific Program Committee, IGES
- 2015-2016 Member, Local Organizing Committee, 5th International Conference on quantitative Genetics
- 2014 Judge, National DNA Day Essay Contest, American Society of Human Genetics (ASHG)
- 2012 Group Leader, Collapsing Methods, Genetic Analysis Workshop (GAW18)
- 2010-2019 Invited Mentor, Career Paths in Genetics, American Society of Human Genetics Annual Meeting
- 2010 Group Leader, Genes with Multiple Rare Variants, Genetic Analysis Workshop (GAW17)
- 2008-2018 Member, Wisconsin Genetics Advisory Committee, Wisconsin Department of Health Services
- 2008 Judge, National DNA Day Essay Contest, American Society of Human Genetics (ASHG)
- 2007-2009 Scientist, Geneticist Educator Network of Alliances (GENA), American Society of Human Genetics (ASHG) and Genetics Society of America (GSA)

University of Wisconsin – Madison

- 2023 Coach, MATRIX Mentoring Program, School of Medicine and Public Health
- 2022-present Member, My Precision Health Leadership Team, School of Medicine and Public Health
- 2021-2024 Member, Women Faculty Mentoring Program Advisory Committee
- 2021-2024 Member, Basic Sciences Strategic Leadership Committee, School of Medicine and Public Health
- 2020-2021 Chair, Admissions Committee, Population Health and Epidemiology Graduate Programs, Department of Population Health Sciences

2020-2023 Member, Master of Public Health Promotions Committee, School of Medicine and Public Health

2019 Member, Executive Committee, Wisconsin Partnership Program Partnership Education and Research Committee, School of Medicine and Public Health

2018-2019 Chair, Social Genomics Cluster Hire Faculty Search Committee, UW-Madison

2018-2019 Co-Chair, Biostatistics and Medical Informatics Chair Search Committee, School of Medicine and Public Health

2018-present Member, Curriculum Committee, Department of Population Health Sciences

2018-present Member, Work Environment Committee, Department of Population Health Sciences

2018-present Member, Awards Committee, Department of Population Health Sciences

2018-present Chair, Population Health Steering Committee, Department of Population Health Sciences

2018-present Chair, Epidemiology Steering Committee, Department of Population Health Sciences

2018-present Chair, Student Review Committee, Department of Population Health Sciences

2017-2018 Member, Chair of Cell and Regenerative Biology Search Committee, School of Medicine and Public Health

2017-present Member, Council of Faculty Development Liaisons, School of Medicine and Public Health

2017-present Member, Biomedical Data Science PhD Program Steering Committee, Department of Biostatistics and Medical Informatics

2017-present Member, Wisconsin Alzheimer's Disease Research Center Executive Committee

2017-2018 Member, Human Genetics Faculty Search Committee, Department of Medical Genetics

2017-2021 Judge, Alzheimer's Disease & Related Disorders Research Day Poster Session

2017-2018 Member, Medical Scientist Training Program (MD/PhD) Admissions Committee, School of Medicine and Public Health

2016-2017 Member, Director of Human Genomics and Precision Medicine Search Committee, School of Medicine and Public Health

2016-2017 Member, Human Genomics and Precision Medicine Initiative Advisory Committee, School of Medicine and Public Health

2016-2019 Member, Wisconsin Partnership Program Partnership Education and Research Committee, School of Medicine and Public Health

2015-2020 Member, Basic Science Strategic Advisory Committee, School of Medicine and Public Health

2014-present Member, Scientific Executive Committee, Wisconsin Alzheimer's Institute, School of Medicine and Public Health

2014-2017 Elected Committee Member, Academic Planning Council, School of Medicine and Public Health

2014-2018 Member, Epidemiology Steering Committee, Department of Population Health Sciences

2012-2014 Grader, Epidemiology Qualifier Exam, Population Health and Epidemiology Graduate Programs, Department of Population Health Sciences

2009-2011 Member, Chair of Pathology Search Committee, School of Medicine and Public Health

2009-2010 Junior Faculty Representative, Associate Dean for Public Health Search Committee, School of Medicine and Public Health

2009 Session Organizer and Moderator, Detours, Potholes and Progress on the Road to Personalized Medicine, 50th Anniversary Symposium, Department of Population Health Sciences

- 2008-2009 Co-Chair, 50th Anniversary Symposium: Population Health Sciences in Wisconsin and Beyond, Department of Population Health Sciences
- 2007-present Member, Admissions Committee, Population Health and Epidemiology Graduate Programs, Department of Population Health Sciences
- 2007-2012 Member, Space Committee, Department of Population Health Sciences