## \Curriculum Vitae

Revised: 1/12/23

# Helen C. S. Meier, Ph.D., M.P.H.

WORK ADDRESS University of Michigan Institute for Social Research Survey Research Center Population, Neurodevelopment, & Genetics Program 426 Thompson Street Ann Arbor, MI Email: <u>hspink@umich.edu</u>

## **EDUCATION**

2011-2015 Ph.D. in Epidemiologic Sciences, University of Michigan School of Public Health, Ann Arbor, MI

- 2008-2010 **M.P.H.** in Hospital & Molecular Epidemiology, University of Michigan School of Public Health, Ann Arbor, MI
- 2002-2006 **B.A.** with distinction in Human Biology (concentration in Bioethics), University of Virginia, Charlottesville, VA

## **EXPERIENCE – Academic and Professional Positions** (since 2010)

2021 - current	Assistant Research Scientist, Population, Neurodevelopment, and Genetics Program, Survey Research Center, Institute for Social Research, University of Michigan, Ann Arbor, MI
2016 - 2020	Assistant Professor of Epidemiology, Joseph J. Zilber School of Public Health, University of Wisconsin – Milwaukee, Milwaukee, WI
2015 - 2016	Intramural Research Training Award (IRTA) Postdoctoral Fellow, Epidemiology Branch National Institute of Environmental Health Sciences, Research Triangle Park, NC and Translational Gerontology Branch, National Institute on Aging, Baltimore, MD
2010- 2014	Detroit Neighborhood Health Study Coordinator, Aiello Research Group, Department of Epidemiology University of Michigan School of Public Health, Ann Arbor, MI
2009-2010	Research Assistant, Cardioprotection Research Group, Department of Cardiology University of Michigan Medical School, Ann Arbor, MI

## HONORS & AWARDS

# 2019 Shaw Scientist Award, Greater Milwaukee Foundation

2015	6th Annual Harburg Student Award for Excellence in Social Epidemiology, Center for Social
	Epidemiology and Population Health, University of Michigan School of Public Health
2014	Department of Epidemiology Block Grant Award, University of Michigan School of Public Health
2013	Rackham Conference Travel Grant, University of Michigan
2010	Hunein F. Maassab Award for Excellence in Molecular Epidemiology, University of Michigan School of
	Public Health, Department of Epidemiology
2009-2010	Deans Award Scholarship, University of Michigan School of Public Health
2002-2006	Echols Scholar, University of Virginia
2002-2006	Phi Eta Sigma Honor Society, University of Virginia
2002-2006	National Society of Collegiate Scholars, University of Virginia

## PEER-REVIEWED PUBLICATIONS

(<sup>‡</sup>Student Author, \*Corresponding Author)

- 1. Peterson, M. D., Collins, S., **Meier, H. C. S.**, Brahmsteadt, A., & Faul, J. D. (2022). Grip strength is inversely associated with DNA methylation age acceleration. *Journal of Cachexia, Sarcopenia and Muscle*. 2022. Epub ahead of print. PMID: 36353822
- Wing, J. J., Lynch, E. E., Laurent, S. E., Mitchell, B., Richardson, J., & Meier, H. C. S. Historic redlining in Columbus, Ohio associated with stroke prevalence. *Journal of Stroke and Cerebrovascular Diseases*. 2022;31(12):106853. PMID: 36323167
- Woo, J. M. P., Parks, C. G., Hyde, E. E., Auer, P. L., Simanek, A. M., Konkel, R. H., Taylor, J., Sandler, D. P., & Meier, H. C. S. Early life trauma and adult leucocyte telomere length. *Psychoneuroendocrinology*. 2022;144:105876. PMID: 35939862
- Ramasubramanian, R., Meier, H. C. S., Vivek, S., Klopack, E., Crimmins, E. M., Faul, J., Nikolich-Žugich, J., & Thyagarajan, B. Evaluation of T-cell aging-related immune phenotypes in the context of biological aging and multimorbidity in the Health and Retirement Study. *Immunity & Ageing*. 2022;19(1):33. PMID: 35858901
- Simanek, A. M., Manansala, R., Woo, J. M. P., Meier, H. C. S., Needham, B. L., & Auer, P. L. Prenatal Socioeconomic Disadvantage and Epigenetic Alterations at Birth Among Children Born to White British and Pakistani Mothers in the Born in Bradford Study. *Epigenetics*. 2022;17(13):1976-1990. PMID: 35837690
- Meier, H. C. S., Sandler, D. P., Wilkerson, J., Miller, F. W., Dinse, G. E., & Parks, C. G. Hygiene Hypothesis Indicators and Prevalence of Antinuclear Antibodies in US Adolescents. *Frontiers in Immunology*. 2022;13. PMID: 35154106
- Woo, J. M. P., Simanek, A., O'Brien, K. M., Parks, C., Gaston, S., Auer, P. L., Konkel, R. H., Jackson, C. L., Meier, H. C. S., & Sandler, D. P. Latent class models of early-life trauma and incident breast cancer. *Epidemiology*. 2022;33(5):729-738. PMID: 35580243
- Lynch, E. E., Malcoe, L. H., Laurent, S. E., Richardson, J., Mitchell, B. C., & Meier, H. C. S. The legacy of structural racism: Associations between historic redlining, current mortgage lending, and health. SSM -*Population Health.* 2021;14:100793. PMID: 33997243

- 9. Wing, J. J., Lynch, E. E., Laurent, S. E., Mitchell, B. C., Richardson, J., & Meier, H. C. S. Abstract P873: Structural Racism in Columbus, Ohio Associated With Stroke Prevalence. *Stroke*. 2021;52(Suppl 1):AP873.
- Simanek, A.M., Meier, H.C.S., D'Aloisio, A.A., Sandler, D.P. Objective and Subjective Childhood Socioeconomic Disadvantage and Incident Depression in Adulthood: A Longitudinal Analysis in the Sister Study. *Social Psychiatry and Psychiatric Epidemiology*. 2021 Jul;56(7):1201-1210. PMID: 33881563.
- Noppert, G., Feinstein, L., Dowd, J.B., Stebbins, R., Zang, E., Needham, B., Meier, H.C.S., Simanek, A.M.S., & Aiello, A.E. Pathogen Burden and Leukocyte Telomere Length in the United States. *Immunity & Ageing*. 2020;17(36). PMID: 28879822.
- 12. Shoeb, M., Meier H.C.S. & Antonini, J.M. Telomeres in Toxicology: Occupational Health. *Pharmacology & Therapeutics*. 2020 Nov 8; 107742. PMID: 33176178.
- Lynch, E.E.<sup>‡</sup> & Meier, H.C.S.\* The intersectional effect of poverty, home ownership, and racial/ethnic composition on mean childhood blood lead levels in Milwaukee County neighborhoods. *PLoS ONE*. 15(6): e0234995. PMID: 32559243.
- Chesley, N., Meier, H.C.S., Luo, J., Apchemengich, I., and Davies, W. H. Social Context Shaping Adoption of Point-of-Use Water Filtration Systems: An Observational Study of an MTurk Sample. *Journal of Water and Health.* 2020 Aug;18(4):505-521. PMID: 32833677.
- 15. Meier, H.C.S.\*, Sandler, D.P., Simonsick, E.M., Wang, N.P. and Parks, C.G. Sex differences in the association between antinuclear antibody positivity with diabetes and multimorbidity in older adults: results from the Baltimore Longitudinal Study of Aging. *Experimental Gerontology*. 2020 Jul 1;135:110906. PMID: 32145292.
- Meier, H.C.S,\* Miller, F.W., Dinse, G.E., Weinberg, C.R., Cho, C.C., & Parks, C.G. *Helicobacter pylori* seropositivity is associated with antinuclear antibodies in US adults, NHANES 1999-2000. *Epidemiology and Infection*. 2020 Feb 5;148:e20. PMID: 32019616.
- Meier, H.C.S.\*, Parks, C.G., Liu, H.B., Sandler, D.P., Simonsick, E.M., Deane, K.D. and Weng, N.P.\* Cellular aging over 13 years associated with incident antinuclear antibody positivity in the Baltimore Longitudinal Study of Aging. *Journal of Autoimmunity*. 2019 Dec;105:102295. PMID: 31303354.
- Meier, H.C.S.\*, Hussein, M., Needham, B., Barber, S., Lin, J., Seeman, T. and Diez Roux, A. Cellular Response to Chronic Psychosocial Stress: Ten-year Longitudinal Changes in Telomere Length in the Multi-Ethnic Study of Atherosclerosis. *Psychoneuroendocrinology*. 2019 Apr 29; 107:70-81. PMID: 31112903.
- Brenner, N. Mentzer, A.J., Butt, J., Michel, A., Prager, K., Brozy, J., Weißbrich, B., Aiello, A.E., Meier, H.C.S., Breuer, J., Almond, R., Allen, N., Pawlita, M. and Waterboer, T. Validation of Multiplex Serology Detecting Human Herpesviruses 1-5. *PLoS One.* 2018 Dec 27; 13(12):e0209379. PMID: 30589867.
- Dinse, G.E., Parks, C.G., Meier, H.C.S., Co, C.A., Chan, E.K.L., Jusko, T.A., Yeh, J. and Miller, F.W. Prescription medication use and antinuclear antibodies in the United States, 1999-2004. *Journal of Autoimmunity*. 2018 Aug; 92:93-103. PMID: 29779929.

- 21. Dinse, G.E., Parks, C.G., Weinberg, C.R., **Meier, H.C.S.,** Co, C.A., Chan, E.K.L., Dillon, C.F. and Miller, F.W. Antinuclear antibodies and subsequent mortality of participants in the National Health and Nutrition Examination Survey, 1999-2004. *PLoS One*. 2017 Oct 9; 12(10):e0185977. PMID: 29016697.
- 22. Aiello, A.E., Jayabalasingham, B., Diez-Roux, A., **Meier, H.C.S.**, Simanek, A.M., Needham, B., Seeman, T., Chen S. and Dowd, J.B. The impact of pathogen burden and immune response on leukocyte telomere length in the Multi-Ethnic Study of Atherosclerosis. *Epidemiology & Infection*. 2017 Sept;7:1-9. PMID: 28879822.
- 23. Simonsick, E.M., **Meier, H.C.S.**, Chiles, N.S., Studenski, S.A., Ferrucci, L. Basal Body Temperature as a Biomarker of Healthy Aging. *AGE*. 2016 Dec; 38 (5-6):445-454. PMID: 27785691.
- Meier, H.C.S., Sandler, D.P., Simonsick, E.M. and Parks, C.G. Association between vitamin D deficiency and antinuclear antibodies in middle age and older U.S. adults, NHANES 2001-2004. *Cancer Epidemiology, Biomarkers & Prevention.* 2016 Dec; 25(12):1559-1563. PMID: 27543618.
- 25. Meier, H.C.S., Haan, M.H., Mendes de Leon, C.F., Simanek, A.M., Dowd, J.B. and Aiello, A.E. Life Course Socioeconomic Position and Immune Response to Persistent Infections in Elderly Latinos. *Social Science & Medicine*. 2016 Oct; 166:77-85. PMID: 27543684.
- Simanek, A.M. and Meier, H.C.S. Association Between Prenatal Exposure to Maternal Infection and Offspring Mood Disorders: A Review of the Literature. *Current Problems in Pediatric and Adolescent Health Care*. 2015 Nov;45 (11):325-64. PMID: 26476880.
- 27. Weckle, A., Aiello, A.E., Uddin, M., Galea, S., Colborn, R.M., Soliven, R., Meier, H., Wildman, D.E. Rapid Fractionation and Isolation of Whole Blood Components in Samples Obtained from a Community-based Setting. *J Vis Exp.* 2015 Nov 30; (105). PMID: 26649992.
- McCarty, C.A., Huggins W., Aiello A.E., Bilder R.M., Hariri, A., Jernigan, T.L. Newman, E., Sanghera, D.K., Strauman, T.J., Zeng, Y., Ramos, E.M., Junkins, H.A., PhenX RISING network. PhenX RISING: real world implementation and sharing of PhenX measures. *BMC Med Genomics*. 2015 Mar 20;7:16. PMID: 24650325.

# **OTHER PUBLICATIONS**

 "Redlining & Neighborhood Health." Research Report in collaboration with National Community Reinvestment Coalition. Authors: Meier, H.C.S., Richardson, J, Mitchell, B.C., Lynch, E.E., Edlebi, J. Available at: <u>https://ncrc.org/holc-health/</u>.

# **INVITED TALKS**

- 1. **Meier, H.C.S.** "Redlining & Neighborhood Health." Ignite Presentation at Data You Can Use's Annual Data Day. October 21, 2020.
- 2. **Meier, H.C.S.** "From Cells to Society: Molecular and social drivers of population health." Survey Research Center, Institute for Social Research, University of Michigan, Ann Arbor, MI, June 15, 2020.

- 3. Moderator. Zilber School of Public Health presents On Public Health: Lead in Milwaukee: A Community-Wide Response. November 18, 2019. Info available at: <u>https://uwm.edu/publichealth/event/on-public-health-lead-in-milwaukee-a-community-wide-response/</u>
- 4. Lead Expert Presenter. League of Women Voters Milwaukee County; Addressing Lead Issues: A Milwaukee Focus Public Issues Forum, November 17, 2018.
- 5. Meier, H.C.S. "Predictors and Consequences of Autoimmunity in Aging Populations." Department of Kinesiology Research Seminar, University of Wisconsin, Madison, WI, September 14, 2018.

# **OP EDS AND MEDIA APPEARANCES**

- 1. UWM Today radio interview with Tom Luljak, October 22, 2021. "Redlining and Neighborhood Health."
- UWM Today radio interview with Tom Luljak, November 28, 2019. "Flu Vaccines: Exploring The Latest Science and Why Not Everyone Gets the Same Benefits." available at: https://www.wuwm.com/post/flu-vaccinesexploring-latest-science-why-not-everyone-gets-same-benefits#stream/0
- 3. UWM Partners for Health Podcast, November 22, 2019. Available at: https://soundcloud.com/user-588005839-184722050/p4h\_ep005
- 4. Milwaukee Neighborhood News Service, "Forum surfaces ongoing controversy over prime cause of lead poisoning in Milwaukee," by Abby Ng, November 29, 2018. Available at: <a href="https://milwaukeenns.org/2018/11/29/forum-surfaces-ongoing-controversy-over-prime-cause-of-lead-poisoning-in-milwaukee/?mc\_cid=d8a7663c40&mc\_eid=3a2fd19b9a">https://milwaukee/?mc\_cid=d8a7663c40&mc\_eid=3a2fd19b9a</a>
- 5. Lead Expert Panel Member, Milwaukee PBS, "Lead and Our Health" *10thirtysix* Episode #207; May 19, 2018. Recording available at: <u>https://www.milwaukeepbs.org/local-programs/10thirtysix/</u>
- "How City Should Solve Lead in Water," Op Ed by Noelle Chelsey, Anne Dressel, John Berges, and Helen Meier. Urban Milwaukee, March 2, 2018. Available at: <u>https://urbanmilwaukee.com/2018/03/02/op-ed-how-should-city-solve-lead-in-water/</u>

# **RESEARCH PRESENTATIONS**

(<sup>†</sup> Current/former MPH advisee, <sup>‡</sup>Current/former PhD student)

- 1. Chesley, N., Laurent, S.E.<sup>‡</sup>, & **H.C.S. Meier.** Using Crowdsourcing Platforms in Study Designs during the COVID-19 Pandemic: Lessons from a Mechanical Turk Survey Experiment on Mask Wearing. Population Association of America 2021 Annual Meeting. May 2021.
- 2. **Meier, H.C.S.** Redlining & Neighborhood Health. Ignite Presentation at Data You Can Use's Annual Data Day. October 21, 2020.
- Meier, H.C.S., Manansala, R., Aiello. A.E., Malosh, R.M. Disparities in individual and neighborhood level education are associated with the risk of acute respiratory illness in the Detroit Neighborhood Health Study. Poster presentation at the Annual Meeting of the Society for Epidemiologic Research. Boston, MA. December 15-18, 2020.
- 4. Lynch, E.E.<sup>†</sup>, **Meier, H.C.S.** Investigating structural racism in Milwaukee: The legacy of historic disinvestment on current lending and health. Oral presentation at the Interdisciplinary Association for Population Health Science Annual Meeting. Minneapolis, MN. September 30-October 2, 2020. Event moved online due to COVID-19.
- Laurent, S.E.<sup>†</sup>, Meier, H.C.S. Racial disparities in the association between neighborhood socioeconomic index and blood lead levels in Milwaukee County, Wisconsin Children, 2014-2016. Poster presentation at the Interdisciplinary Association for Population Health Science Annual Meeting. Minneapolis, MN. September 30-October 2, 2020. Event moved online due to COVID-19.

- Lynch, E.E.<sup>†</sup>, Meier, H.C.S. The intersectional effect of poverty, home ownership, and racial/ethnic composition on average childhood blood lead levels in Milwaukee County neighborhoods. Poster presentation at the Annual Meeting of the Society for Epidemiologic Research. Boston, MA. December 15-18, 2020.
- Laurent, S.E.<sup>†</sup>, Meier, H.C.S. Association between Neighborhood Poverty and Blood Lead Level Severity in Milwaukee County, Wisconsin Children, 2014-2016. Poster presentation at the Annual Meeting of the Society for Epidemiologic Research. Boston, MA. December 15-18, 2020.
- 8. Fink, J.T., Laestadius, L.I., Jarman, C.G., Chopp, S.A. and **Meier, H.C.S.** JUUL/VAPE in Adolescents: A Focus Group Study of Usage and Perceptions. Poster presentation at American Public Health Association Annual Meeting, Philadelphia, PA, November 2-6, 2019.
- 9. Lynch, E.E.<sup>†</sup> and **Meier, H.C.S**. Neighborhood Child Blood Lead Levels Differ by Home Ownership, Poverty, and Racial/Ethnic Composition in Milwaukee County. Poster presentation Data You Can Use Data Day 2019, Milwaukee, WI, October 22, 2019.
- Woo, J.M.P.<sup>‡</sup>, Meier, H.C.S., Sandler, D.P. Early Life Traumatic Experiences and Incident Breast Cancer Risk among Adult Women. National Institute of Environmental Health Sciences 2019 Summer Internship Program Poster Session, Research Triangle Park, NC, July 26, 2019. *Third Place*.
- 11. McAtee, C.<sup>†</sup>, Tynczuk, N.<sup>†</sup>, Verpraskas, P., Conklin, L., Simanek, A.M., & Meier, H.C.S. Opioid Use in Wauwatosa, Wisconsin: A spatial analysis of opioid-related issues and demographic determinants. Poster presentation at Wisconsin Public Health Association Annual Public Health Conference, Wisconsin Dells, WI, May 21-23, 2019.
- Meier, H.C.S., Hussein, M., Needham, B., Barber, S., Epel, E., Lin, J., Seeman, T. and Diez Roux, A. Cellular Response to Chronic Psychosocial Stress: Ten-year Longitudinal Changes in Telomere Length in the Multi-Ethnic Study of Atherosclerosis. Poster presentation at the 51<sup>st</sup> Annual Society for Epidemiologic Researchers Meeting, Baltimore, MD, June 19-22, 2018.
- 13. Simanek, A.M., Meier, H.C.S., D' Alioso, A.A., Sandler, D.P. Lifecourse Subjective and Objective Socioeconomic Disadvantage in Childhood and Incident Depression in Adulthood Among Middle- to Older-Aged Women in the Sister Study. Poster presentation at the 4th Annual Meeting of the Interdisciplinary Association of Population Health Science. Washington, DC. October 3<sup>rd</sup>-5<sup>th</sup>.
- 14. Simanek, A.M., Meier, H.C.S., D' Alioso, A.A., Sandler, D.P. Lifecourse Subjective and Objective Socioeconomic Disadvantage in Childhood and Incident Depression in Adulthood Among Middle- to Older-Aged Women in the Sister Study. Poster presentation at the 51<sup>st</sup> Annual Meeting of the Society for Epidemiologic Research. Baltimore, MD. June 19<sup>th</sup>-22<sup>nd.</sup>
- 15. Meier, H.C.S., Haan, M.H., Mendes de Leon, C.F., Simanek, A.M., Dowd, J.B., and Aiello, A.E. Time Since US Immigration and Immune Response to Persistent Infection in Later Life. Poster presentation at the 50<sup>th</sup> Annual Society for Epidemiologic Researchers Meeting, Seattle, WA, June 20-23, 2017.
- Meier, H.C.S., Haan, M.H., Mendes de Leon, C.F., Simanek, A.M., Dowd, J.B., and Aiello, A.E. Nativity, Acculturation and Immune Response to Persistent Infections in Elderly Latinos. Poster presentation at the Population Association of America Annual Meeting, Chicago, IL, April 27-29, 2017.
- Simonsick, E.M., Meier, H.C.S., Chiles, N.S., Studenski, S.A., Ferrucci, L. Core Body Temperature as a Biomarker of Energetic Efficiency and Mobility Performance. Presentation at The Gerontological Society of America's 69<sup>th</sup> Annual Scientific Meeting, New Orleans, LA, November 16-20, 2016.
- Meier, H.C.S., Sandler, D.P., Simonsick, E.M. and Parks, C.G. Association between vitamin D deficiency and antinuclear antibodies in middle age and older U.S. adults, NHANES 2001-2004. Poster presentation at the 2016 Epidemiology Congress of the Americas, Miami, FL, June 21-24, 2016.
- 19. Meier, H.C.S. Aging and Autoimmunity in the Baltimore Longitudinal Study of Aging. Oral presentation at the Translational Gerontology Branch Annual Retreat, National Institute on Aging, Baltimore, MD, August, 31, 2015.

- Meier, H.C.S., Haan, M.H., Mendes de Leon, C.F., Simanek, A.M., Dowd, J.B., and Aiello, A.E. Life Course Socioeconomic Position and Immune Response to Persistent Infections in Elderly Latinos. Poster presentation at the 48<sup>th</sup> Annual Society for Epidemiologic Researchers Meeting, Denver, CO, June 17-19, 2015.
- Meier, H.C.S. and Aiello, A.E. Helicobacter pylori exposure and the risk of nephropathy in the U.S. Population, NHANES 1999-2000. Poster presentation at the 46<sup>th</sup> Annual Society for Epidemiologic Research Meeting, Boston, MA, June 18-21, 2013.
- 22. Simanek, A.M., Meier, H.C.S., Dowd, J.B. and Aiello, A.E., Longitudinal Association Between Immune Response to Cytomegalovirus and Depression/Depressive Symptoms. Talk presented at the 4<sup>th</sup> International Workshop on "CMV & Immunosenescence", Parma, Italy, March 25-27, 2013.
- 23. Simanek, A.M., Dowd, J.B., Meier, H.C.S. and Aiello, A.E. Longitudinal Associations Between Immune Response Against Persistent Pathogens and Adverse Cognitive Function, Mental Health and Immunological Aging. Talk presented at the Annual Stanley Medical Research Institute Conference, Baltimore, MD, December 10-12, 2012.
- 24. **Meier, H.C.S.** and Aiello, A.E. The Pathogen Study: Preliminary Analyses. Rush Medical Center Religious Orders Study, Memory and Aging Project, and Minority and Aging Research Study Annual Investigators Meeting, Chicago, IL, June 14-15, 2012.

# **RESEARCH FUNDING**

# Ongoing

## R01 MH130158 (Hyde/Mitchell/Monk/Neblett, MPI's) Role: Co-Investigator NIH/NIMHD

# Structural Racism and Black American Mental Health: Neurophysiological Mechanisms and Sociocultural Processes Promoting Resilience During the Transition to Adulthood

With a broad goal to understand vulnerability and resilience in Black Americans' responses to structural racism over the life course, our objectives are to elucidate: i) neurodevelopmental and autonomic nervous system (ANS) mechanisms by which neighborhood and societal dimensions of SRD impact mental and physical health, and (ii) sociocultural mechanisms that influence the impact of SRD on health during the transition to adulthood.

# P30 AG012846 (Freedman, PI) Role: Pilot PI NIH/NIA

# Michigan Center on the Demography of Aging Pilot Award

The goal of this pilot project is to determine if pre-pandemic features of immune aging (i.e., age associated T-cell subsets, inflammation, and epigenetic age) are associated with COVID-19 infection and disease severity using data from the Health and Retirement Study, a nationally representative longitudinal study of adults over 55 years.

P30 AG059300 (Ajrouch & Antonucci, PI) Role: Pilot PI

NIH/NIA

# Michigan Center for Contextual Factors in Alzheimer's Disease (MCCFAD) Pilot Study

We aim to ameliorate alarming ADRD disparities in Latinos through identifying modifiable environmental risk factors. We are leveraging an existing cohort of Latino elders from the Sacramento Latino Study on Aging to describe essential and non-essential blood metal concentration, which are modifiable environmental exposures, and examining associations between these exposures and cognition and ADRD incidence.

## R01 HD076592 (Notterman, PI)

04/07/22 - 03/31/27

09/01/21 - 06/30/23

05/01/19 - 04/30/24

07/01/22 - 06/30/23

# **Role: Assistant Research Scientist** NIH/NICHD

Biological and social mediators of child wellbeing among ethnic groups in Fragile Families

For this renewal project we plan to develop a portfolio of relatively new measures based on data acquired during the current funding period (multiple polygenetic scores, including several that exploit gene expression or experimental data to enhance the predictive power for particular phenotypes.

## National Occupational Research Agenda (NORA) Award (PI: Shoeb) **Role: Invited Expert Collaborator CDC/NIOSH**

# Crosstalk between DNA repair mechanisms and welding fumes-induced genotoxicity

Intramural research award to Dr. Mohammad Shoeb in the Health Effects Laboratory Division/Pathology and Physiology Research Branch, National Institute for Occupational Safety and Health.

# R01 AG060110 (Crimmins, PI)

**Role: Assistant Research Scientist** NIH/NIA

# **Biological Underpinnings of Socieconomic Differentials in Health and Mortality**

The goal of this project is to use a unique new data resource from the Health and Retirement Study (HRS) to elucidate the biological pathways and networks through which life course social disadvantage influences subsequent morbidity and mortality. This work investigates how predisposing factors (methylation, gene expression, mitochondrial exhaustion, and clinical biological age) and precipitating factors (socioeconomic status, psychosocial stressors, and neighborhood) together influence age-related health conditions (age-related morbidity and mortality).

# R01 MD011716 (Mitchell, PI)

**Role: Assistant Research Scientist** 

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

Building on an existing representative study of children, this proposal will: 1) assemble epigenome-wide data on 2,000 children at two points in time, 2) describe methylation patterns in 3 race/ethnic groups and across SES levels, and 3) explicate epigenetic associations with social adversity, biological processes, and socioemotional development. 2019 PECASE winner.

*Completed* 

RF1 AG055654 (Faul & Galama, MPIs) **Role: Assistant Research Scientist** 

# Identifying modifiable aspects of gene-by-environment interplay in later-life cognitive decline

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 to better capture genetic risk and to examine whether SES and work characteristics moderate the effect of genes on the development of dementia and cognitive decline in later life.

# **Shaw Scientist Award Role: Principal Investigator Greater Milwaukee Foundation**

The Shaw Scientist Awards program began in 1982 thanks to a \$4.3 million bequest from Dorothy Shaw, widow of James Shaw, a prominent Milwaukee attorney. In addition to \$2 million in special grants, the Shaws' fund has awarded about \$14 million in grants to 77 scientists from UW-Madison and UW-Milwaukee. An advisory panel including scientists representing major U.S. research institutions recommends the winners. The award is seed funding to support innovative research approaches and the career development of young investigators. I am the 14th recipient from UW-Milwaukee since 1982.

07/01/18 - 06/30/23

08/16/17 - 05/31/23

09/15/17 - 11/30/22

2020-2023

7/1/2019-6/30/2021

\$200.000

## 90ADPI0038-01-00 Role: Principal Investigator UWM Subcontract, Lead Evaluator Waukesha Site ACL/DHHS

## Expanding Dementia Care Specialist Services in Wisconsin

The Wisconsin Department of Health Services received an American Community Living grant to support a three-year project to expand access to the Dementia Care Specialist Program to populations not currently being served. As the PI of the University of Wisconsin – Milwaukee subcontract, Dr. Meier leads all efforts, including evaluation design, data collection, data analysis, interpretation of findings, to determine if proposed intervention achieved its anticipated outcomes at the Waukesha, WI location serving Latino elders.

# R21 MD012345 (PI: Simanek)

#### **Role: Co-Investigator NIH/NIMHD**

# Socioeconomic Disadvantage, Adverse Birth Outcomes and Programming of Inflammation

We examine whether maternal socioeconomic disadvantage at both the individual- and neighborhood-level experienced during pregnancy is associated with a pro-inflammatory phenotype in children at birth, assess the role that adverse birth outcomes including preterm or small for gestational age birth play in explaining this association and assess whether these relationships differ by offspring sex.

# TEACHING

Delivered Courses

Fall 2019, 2020	Instructor, PH201 Public Health from Cells to Society I, University of Wisconsin-Milwaukee
	Joseph J. Zilber School of Public Health
Fall 2018, 2017	Co-Instructor, PH704 Principles and Methods of Epidemiology, University of Wisconsin-
	Milwaukee Joseph J. Zilber School of Public Health
Spring 2020-2017	Instructor, PH761 Epidemiology Field Methods, University of Wisconsin-Milwaukee Joseph J.
	Zilber School of Public Health
Fall 2018, 2017	Guest Lecturer, University of Wisconsin-Milwaukee Joseph J. Zilber School of Public Health,
	PH756 Social Epidemiology, Topics: Life Course Epidemiology, Mediation Analysis
	Guest Lecturer, University of Wisconsin-Milwaukee Joseph J. Zilber School of Public Health,
	PH801 Seminar in Public Health Research, Topic: Social and Environmental Determinants of
	Immune Function in Aging Populations
Fall 2016	Guest Lecturer, University of Wisconsin-Milwaukee Joseph J. Zilber School of Public Health,
	PH756 Social Epidemiology, Topic: Life Course Epidemiology
	Guest Lecturer, University of Wisconsin-Milwaukee Joseph J. Zilber School of Public Health,
	PH801 Seminar in Public Health Research, Topic: Social and Environmental Determinants of
	Immune Function in Aging Populations
Fall 2015	Guest Lecturer, University of North Carolina Gillings School of Global Public Health, EPID 826
	Social Epidemiology, Topic: Life Course Epidemiology
Winter 2014	Graduate Student Instructor, University of Michigan School of Public Health, EPID 503
	Strategies and Uses of Epidemiology
Fall 2013	<i>Guest Lecturer</i> , University of Michigan School of Public Health, EPID 514 Social Epidemiology,
=010	Topic: Life Course Epidemiology
	Tople. The course Tplachinology

Developed Courses – Graduate

### 9/30/2019-9/29/2020 \$81,998 (subcontract) \$865,466

9/6/2018-4/30/2020 \$444,382 PH806 Advanced Epidemiology PH864 Research Ethics in Epidemiology and Public Health PH904 Survey of Analytic Methods for Epidemiology

Developed Courses – Undergraduate PH355 Public Health Research Methods I PH455 Public Health Research Methods II

## MENTORSHIP

## Joseph J. Zilber School of Public Health, University of Wisconsin – Milwaukee: Epidemiology

Doctoral Students - Dissertation Committee Chair

2020-current Sarah E. Laurent, MPH, Joseph J. Zilber School of Public Health, UWM (co-Chair)

2018-2020 Jennifer M. Woo, MPH, Joseph J. Zilber School of Public Health, UWM Dissertation Title: Life Course Health Effects of Early Life Trauma (Defended April 17, 2020)

Master of Public Health Students – Academic and Capstone Advisor

2019-2020	Kimber Meyer
	Kayala Bonack
	Sarah Reed
	Laura Rollin
2019-2020	Emily Lynch, MPH
2018-2020	Andrea Lengyel
	Katherine Lund, MPH
2017-2018	Natasha Tynczuk, MPH
2016-2018	Hannah Onderko, MPH
	Christina Khouri, MPH
	Chelsea Moore, MPH
2016-2017	Rachel Lecher, MPH

# COMMITTEES, ACTIVITIES, & SERVICE (since 2011)

2018-2020	Faculty Advisor, Public Health Graduate Student Assembly, Joseph J. Zilber School of Public Health, UWM
2018-2020	Undergraduate Program Committee, Joseph J. Zilber School of Public Health, UWM
2018-2020	Spanish for Health Professionals Certificate Advisory Committee, University of Wisconsin-Milwaukee
2016-2020	Member, Latino Aging Consortium, United Community Center, Milwaukee, WI
2016-2019	Publications Committee Ad Hoc Member, Society for Epidemiologic Research
2016-2018	MPH Curriculum Committee, Joseph J. Zilber School of Public Health, UWM
2015-2016	NIEHS Trainees Assembly (NTA) Epidemiology Branch Representative
2015-2016	Reproductive Lunch Seminar Coordinator, Epidemiology Branch, NIEHS
2015-2016	Space Committee Member, Epidemiology Branch, NIEHS
2013-2015	Association for Women in Science, University of Michigan
2013-2015	Mentor for Pre-Public Health Association, Women in Health Leadership, University of Michigan

## **PROFESSIONAL SERVICE**

2019 NIH NIA/NIEHS U-24 and U-01 Study Section Reviewer, Telomeres as Sentinels of Environmental Exposures, Psychosocial Stress and Disease Susceptibility

#### **PROFESSIONAL MEMBERSHIP**

- 2018-current Interdisciplinary Association for Population Health Studies
- 2012-current Society for Epidemiologic Research
- 2016-current Population Association of America

### **ADHOC PEER REVIEWER**

American Journal of Epidemiology, Social Science & Medicine – Population Health, Epidemiology & Infection, Journal of Gerontology: Social Sciences, Psychoneuroendocrinology, Fertility and Sterility, Stress, Immunity and Aging, National Institute of Environmental Health Sciences Internal Manuscript Review, Society for Epidemiologic Research, Annual Meeting Abstract Reviewer

## CERTIFICATIONS

CITI Program IRB-Biomedical and Social & Behavioral Combined Researchers (exp. 6/24/2022) OSEH Handling and Shipping of Hazardous Materials Infectious Substances OSEH Laboratory Safety and Bloodborne Pathogen Training