BIOGRAPHICAL SKETCH

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NAME: Martz, Connor David

eRA COMMONS USER NAME (credential, e.g., agency login): cdmartz

POSITION TITLE: Postdoctoral Fellow

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

INSTITUTION AND LOCATION	DEGREE	Completion Date MM/YYYY	FIELD OF STUDY
University of Wisconsin-Madison, Madison, WI	B.S.	05/2016	Human Ecology, Global & Public Health
Auburn University, Auburn, AL	Ph.D.	05/2022	Human Development (Emphasis in Health Equity Research)
The University of Texas at Austin, Austin, TX	Postdoc	08/2025 (expected)	Population Health & Social Epigenomics

A. Personal Statement

I am an early career researcher investigating sociocontextual and psychosocial drivers of population health, with an emphasis on the root causes of racial/ethnic disparities in premature biological aging. I possess expertise in studying how the social environment—particularly during early-life—becomes biologically embedded to impact trajectories of aging and disparities in the population-level distribution of disease. My research, to date, has focused on biopsychosocial mechanisms of racial/ethnic health disparities across three contexts: neighborhood environments, educational settings, and interpersonal experiences. My current NICHD-funded T32 postdoctoral fellowship at the UT-Austin Population Research Center has provided training and research experience using DNA methylation (DNAm) data to examine biosocial pathways of population health. This experience has been supplemented through the Butler-Williams Scholars Program and the Genomics for Social Scientists-Epigenetics workshop at the University of Michigan-Ann Arbor, which provided conceptual and methodological skills to examine DNAm data in the context of racial/ethnic disparities in biological aging. Collectively, my interdisciplinary background in developmental, social, and health sciences have provided me the skills and expertise to investigate how early-life epigenetic modifications stemming from chronic exposure to neighborhood deprivation influence aging over the life course.

Ongoing, and recently completed projects that I would like to highlight include:

5T32HD007081-45
Goosby/Cavanaugh (MPI)
09/01/2022 – Present
Training program in population health with concentration in social epigenomics.
Role: Postdoctoral Fellow (primary advisor: Lauren Gaydosh)

F31AR076234
Martz (PI)
08/12/2019 – 12/11/2021
Biopsychosocial mechanisms of lupus progression in African American women.
Role: Predoctoral Fellow

B. Positions, Scientific Appointments, and Honors

Positions and Scientific Appointments

2023 – Present	Member, Gerontological Society of America
2023 – Present	Member, Population Association of America
2022 – Present	Member, Biosocial Health Working Group, Population Research Center, University of Austin at Texas, Austin, TX
2022 – Present	Postdoctoral Fellow (NICHD T32), Population Research Center, University of Austin at Texas, Austin, TX
2020 – 2022	Research Fellow, Department of Social, Behavioral, and Population Sciences, Tulane University School of Public Health and Tropical Medicine, New Orleans, LA
2020 – Present	Member, Student Committee, Interdisciplinary Association for Population Health Sciences
2019 – Present	Member, Interdisciplinary Association for Population Health Sciences
2019 – 2021	Predoctoral Fellow (NIAMS F31), Department of Human Development and Family Science, Auburn University, Auburn, AL
2018 – 2021	Member, American Public Health Association
2018	Member, American Psychological Association – Division 45, Society for the Psychological Study of Culture, Ethnicity, and Race
2016 – 2020	Graduate Research Assistant, Department of Human Development and Family Science, Auburn University, Auburn, AL
2016	Project Coordinator, Division of Policy, Planning, and Evaluation, Madison & Dane County Department of Public Health, Madison, WI
2015 – 2016	Research Coordinator, Department of Population Health Sciences, University of Wisconsin – Madison, Madison, WI

Honors

2023	Butler-Williams Scholar, National Institute on Aging, National Institutes of Health
2020	Master's Thesis Award, Auburn University (one of six University-wide)
2019	Ruth L. Kirschstein National Research Service Award, National Institutes of Health
2019	Outstanding Master's Student Award, Auburn University (one of 11 University-wide)
2018	Honorable Mention Poster, APA Division 45 Research Conference
2018	Recipient, Han Soo Chae Memorial Fund for Excellence
2015 – 2016	Dean's High Honors, University of Wisconsin – Madison

C. Contributions to Science

1. Racial/Ethnic Disparities in Biological Aging

Emerging research has leveraged scientific advances in biomarkers of health and aging to examine how social experiences and environments shaped by racism become biologically embedded, in turn accelerating the aging process and increasing chronic disease risk. I have made contributions to understanding how experiences of racism impact biological functioning and subsequent racial disparities in health among various populations. In this line of research, I have contributed first-authored work that examines associations between school structural racism and epigenetic clocks, with findings that indicate segregated and under-resources primary schools are a risk factor for accelerated epigenetic aging for Black children. I have also led and contributed to the first longitudinal studies that suggest experiences of racial discrimination are associated with elevated C-reactive protein and telomere shortening, each using repeated measure study designs.

a. **Martz CD**, Benner A, Goosby B, Mitchell C, & Gaydosh L. (2023). School structural racism and accelerated epigenetic aging in Black and White children. Oral presentation at *The Advances in Social Genomics Conference*, Madison, WI (*Manuscript under review at Social Science & Medicine).*

b. **Martz CD**, Wang Y, Chung KW, Jiakponnah NN, Danila MI, Webb-Detiege T, Allen AA, & Chae DH. (2023). Incident racial discrimination predicts elevated C-reactive protein in the Black Women's Experiences Living with Lupus (BeWELL) Study. *Brain, Behavior, and Immunity.* 2023;112:77-84. PMID: 37286173.

c. Chae DH, Wang Y, **Martz CD**, Slopen N, Yip T, Adler NE, Fuller-Rowell TE, Lin J, Matthews KA, Brody GH, Spears EC, Puterman E, & Epel ES. (2020). Racial discrimination and telomere shortening among African Americans: the Coronary Artery Risk Development in Young Adults (CARDIA) Study. *Health Psychology*, 39(3), 209-219. PMCID: PMC7373166.

d. Chae DH, **Martz CD,** Chung KW, Cunningham DJ, Allen AM, LaViest TA, Saag KG, & Danila MI. (2022). Racial discrimination and telomere shortening: findings from the Black Women's Experiences Living with Lupus (BeWELL) Study. *Lupus Science & Medicine*, 2022;9:doi:10.1136/lupus-2022-elm2022.114.

2. Sociocontextual Drivers of Population Health

Broad structural and socioenvironmental factors play an important role in shaping exposure and access to risk and protective factors for health. In the context of racial health disparities, structural racism operates via mutually reinforcing institutional practices and policies that results in diminished resources and myriad sources of psychosocial stress for minoritized racial and ethnic groups. I have led and contributed to research that has examined various area-level exposures to structural racism and associations with various physical and mental health outcomes. Two first-authored papers focused on racially segregated and disadvantaged neighborhood and school contexts as risk factors for depressive symptoms and accelerated epigenetic aging, respectively. I have contributed to other sociocontextual work focused on cultural racism, including one study which quantified regional Google searches for the "n-word" as a proxy for area-level racism and found positive associations with adverse birth outcomes among Black Americans. Another study found that highly-public instances of anti-Black violence predict poor population mental health for Black but not White Americans. Other relevant work includes a first-authored manuscript (in progress) on gentrification, alcohol availability, and domestic violence trends; and a co-authored textbook chapter on Racism, Stigma, and the COVID-19 Pandemic.

a. **Martz CD**, Hunter EA, Kramer M, Wang Y, Chung K, Brown M, Drenkard C, Lim SS, & Chae DH. (2021). Pathways linking census tract typologies with subjective neighborhood disorder and depressive symptoms in the Black Women's Experiences Living with Lupus (BeWELL) Study. *Health & Place*, 70(July, 2021), 102587. PMCID: PMC8328917.

b. **Martz CD**, Benner A, Goosby B, Mitchell C, & Gaydosh L. (2023). School structural racism and accelerated epigenetic aging in Black and White children. Oral presentation at *The Advances in Social Genomics Conference*, Madison, WI (*Manuscript under review at Social Science & Medicine).*

c. Chae DH, Kramer MR, **Martz CD**, Hatzenbuehler ML, Cooper HLF, Turpin R, Stephens-Davidowitz S, & Clouston S. (2018). Area racism and birth outcomes among Blacks in the United States. *Social Science and Medicine,* 199, 49-55. PMCID: PMC5640467.

d. Curtis DS, Washburn T, Lee H, Smith KR, Kim J, **Martz CD**, Kramer MR, & Chae DH. (2021). Racial violence and the mental health of Black Americans. *Proceedings of the National Academies of Science,* 118(17), e2019624118. PMCID: PMC8092615.

3. Biopsychical Mechanisms of Racial Disparities in Systemic Lupus Erythematosus (SLE)

A growing body of research indicates that racial disparities in SLE outcomes are due in part to greater exposure to psychosocial stressors and socioeconomic disadvantage, including those related to minoritized racial status. Through my NIH-funded (F31) dissertation, I have contributed scientific knowledge on the influence of various facets of racism on SLE-related outcomes in the Black Women's Experiences Living with Lupus (BeWELL) Study. Two studies (one of which I led) examined SLE-related outcomes in context of direct experiences of victimization; another two (one first-authored) papers focused on experiences of racism-related stress that go beyond direct victimization. Additionally, I anticipate contributing a first-author manuscript (currently under review) that identified sociodemographic profiles of Black women with SLE and prospectively examined organ damage accrual over a two-year period. Those findings revealed that Black women with fewer socioeconomic resources and uncontrolled lupus experience greater and faster accumulation of organ damage over time.

a. **Martz CD**, Wang Y, Chung KW, Jiakponnah NN, Danila MI, Webb-Detiege T, Allen AA, & Chae DH. (2023). Incident racial discrimination predicts elevated C-reactive protein in the Black Women's

Experiences Living with Lupus (BeWELL) Study. *Brain, Behavior, and Immunity* [Advanced online publication]. Available from https://doi.org/10.1016/j.bbi.2023.06.004

a. Chae DH, **Martz CD**, Fuller-Rowell TE, Spears EC, Smith TTG, Hunter EA, Drenkard C, & Lim SS. (2019). Racial discrimination, disease activity, and damage: the Black Women's Experiences Living with Lupus (BeWELL) Study. *American Journal of Epidemiology*, 188(8), 1434-1443. PMCID: PMC6670046.

b. **Martz CD**, Fuller-Rowell TE, Allen AM, Spears EC, Hunter EA, Lim SS, Drenkard C, & Chae DH. (2019). Vicarious racism stress and disease activity: the Black Women's Experience Living with Lupus (BeWELL) Study. *Journal of Racial and Ethnic Health Disparities*, 6(5), 1044-1051. PMCID: PMC7302115.

c. Hunter EA, Spears EC, **Martz CD**, Chung K, Fuller-Rowell TE, Lim SS, Drenkard C, & Chae DH. (2020). "Racism-Related Stress and Psychological Distress: Black Women's Experiences Living with Lupus (BeWELL) Study". *Journal of Health Psychology.* PMID: 32228184.

Complete List of Publicly-Available Published Work in MyBibliography:
https://www.ncbi.nlm.nih.gov/myncbi/connor.martz.1/bibliography/public/