

Chantel L. Martin, PhD

Mailing Address:

2104 McGavran-Greenberg Hall | Campus Box 7435
 Chapel Hill, NC 27599-7435
 Office Phone: 919-966-7438
 Email: chantelmartin@unc.edu

EDUCATION

2015	PhD	University of North Carolina at Chapel Hill Dissertation: Association of maternal dietary patterns during pregnancy and early childhood growth outcomes Major: Epidemiology Minor: Biostatistics
2009	MSPH	University of North Carolina at Charlotte Major: Epidemiology Thesis: Serum micronutrient concentrations and risk of uterine fibroids
2005	BS	University of Delaware Major: Finance Minor: Economics

PROFESSIONAL EXPERIENCE

June 2020-present	Assistant Professor of Epidemiology (Tenure-Track) Gillings School of Global Public Health University of North Carolina at Chapel Hill
July 2020-present	Faculty Fellow Carolina Population Center University of North Carolina at Chapel Hill
June 2020-present	Co-Director, Cardiopulmonary Disease Research Center for Environmental Health & Susceptibility Gillings School of Global Public Health University of North Carolina at Chapel Hill
2017-2020	Postdoctoral Research Fellow Department of Epidemiology & Carolina Population Center University of North Carolina at Chapel Hill
2015-2017	Postdoctoral Research Fellow Department of Health Behavior University of North Carolina at Chapel Hill

RESEARCH FUNDING

Active Support

R01MD011728	Uddin, Aiello, Wildman (mPIs)	08/16/17-05/31/26
National Institute of Minority Health and Health Disparities		
<i>“Epigenetic Predictors of PTSD and Traumatic Stress in an African American Cohort”</i>		
Role: Co-Investigator, 5% FTE		
P30ES010126	Troester (PI)	06/01/21-02/28/26
NIH/National Institute of Environmental Health Sciences		
<i>“UNC Center for Environmental Health and Susceptibility”</i>		
Role: Co-Director, 5% FTE		
R01AG062200S1	Newton, Carmichael (mPI)	02/15/21-12/31/21
National Institute on Aging		
<i>“RAATE COVID Supplement”</i>		
Role: Co-Investigator, 10% FTE		
U01AG071450	Aiello, Hummer (mPI)	01/15/21-12/31/25
National Institute on Aging		
<i>“National Longitudinal Study of Adolescent to Adult Health (Add Health): Wave VI Cognition and Early Risk Factors for Dementia Project.”</i>		
Role: Co-Investigator, 5% FTE		
R21HD105461	Vines (PI)	09/15/20-08/31/22
National Institute of Child Health and Human Development		
<i>“Early reproductive aging: stress and uterine fibroid risk among black women”</i>		
Role: Co-Investigator, 5% FTE		
R00MD012808	Martin (PI)	08/17/20-05/31/23
National Institute of Minority Health and Health Disparities		
<i>“Epigenetic mechanisms of prenatal environmental stressors and offspring obesity risk”</i>		
Role: Principal Investigator, 40% FTE		
Carolina Population Center Seed Grant	Martin, Su (mPI)	07/01/20-06/30/21
National Institute of Child Health and Human Development, P2C Pilot Grant		
<i>“Add Health Offspring Feasibility Study”</i>		
Role: Principal Investigator, no salary effort		
R01MD013349	Harris, Aiello (MPI)	08/14/18-03/31/23
National Institute of Minority Health and Health Disparities		
<i>“The Add Health Epigenome Resource: Life course stressors and epigenomic modifications in adulthood.”</i>		
Role: Co-Investigator, 5% FTE		
R01MD011504	Engel (PI)	02/01/17-01/31/22
National Institute of Minority Health and Health Disparities		
<i>“The Vaginal Microbiome and Racial Disparity in Preterm Delivery”</i>		
Role: Co-Investigator, 5% FTE		

6. **Martin CL**, Ward-Caviness C, Dhingra R, Zikry TM*, Uddin M, Galea S, Wildman DE, Koenen KC, Aiello AE. Neighborhood environment, social cohesion, and epigenetic aging. *Aging*, 2021; 13(6): 7883.
7. Wani AH, Aiello AE, Kim GS, Xue F, **Martin CL**, Ratanatharathorn A, Qu A, Koenen KC, Galea S, Wildman DE, Uddin M. The impact of psychopathology, social adversity, and stress-related DNA methylation on prospective risk for post-traumatic stress: A machine learning approach. *Journal of Affective Disorders*, 2021; 282: 894-905.
8. Zalla LC, **Martin CL**, Edwards JK, Gartner DR, Noppert GA. A Geography of risk: Structural racism and COVID-19 mortality in the United States. *American Journal of Epidemiology*, 2021; 190(8): 1439-1446.
9. Ward-Caviness C, Pu S, **Martin CL**, Galea S, Uddin M, Wildman DE, Koenen KC, Aiello AE. Epigenetic predictors of all-cause mortality are associated with objective measures of neighborhood disadvantage in an urban population. *Clinical Epigenetics*, 2020; 12(1): 44.
10. **Martin CL**, Kane JB, Miles GL, Aiello AE, Harris KM. Neighborhood disadvantage across the transition from adolescence to adulthood and risk of metabolic syndrome. *Health & Place*, 2019; 57: 131-138.
11. **Martin CL**, Jima D, Sharp GC, McCullough LE, Park SS, Gowdy KM, Skaar D, Cowley M, Maguire RL, Fuemmeler B, Collier D, Relton CL, Murphy SK, Hoyo C. Maternal pre-pregnancy obesity, offspring cord blood DNA methylation, and offspring cardiometabolic health outcomes in early childhood: An epigenome-wide association study. *Epigenetics*, 2019; 14: 325-240.
12. **Martin CL**, Vladutiu CJ, Zikry TM, Grace MR, Siega-Riz AM. Maternal lipid levels during pregnancy and child weight status at first 3 years of age. *Pediatric Obesity*. 2019; 14(4): e12485.
13. **Martin CL**, Tate DF, Valle CG. Nonadherence to daily self-weighing and activity tracking is associated with weight fluctuations among African American breast cancer survivors. *PLoS One*. 2018; 13(6): e0199751.
14. **Martin CL**, Haan MN, Fernandez-Rhodes L, Lee A, Aiello AE. Association between immigration history and inflammatory marker profiles among older adult Mexican Americans. *Biodemography and Social Biology*. 2018; 64(1): 30-42.
15. Vaughn AE, **Martin CL**, Ward DS. What matters most – what parents model or what parents eat? *Appetite*. 2018; 126: 102-107.
16. **Martin CL**, Tate DF, Schaffner A, Brannen A, Hatley KE, Diamond M, Munoz-Christian K, Pomeroy J, Sanchez T, Mercado A, Hagobian T, Phelan S. Acculturation influences postpartum eating, activity, and weight retention in low-income Hispanic women. *Journal of Women's Health*. 2017; 26: 1333-1339.
17. **Martin CL**, Siega-Riz AM, Sotres-Alvarez D, Robinson WR, Daniels JL, Perrin EM, Stuebe AM. Maternal dietary patterns during pregnancy are associated with child growth in the first 3 years of life. *Journal of Nutrition*. 2016; 146: 2281-2288.

18. **Martin CL**, Siega-Riz AM, Sotres-Alvarez D, Robinson WR, Daniels JL, Perrin EM, Stuebe AM. Maternal dietary patterns are associated with lower levels of cardiometabolic markers during pregnancy. *Paediatric and Perinatal Epidemiology*. 2016; 30(3): 246-255.
19. **Martin CL**, Sotres-Alvarez D, Siega-Riz AM. Maternal dietary patterns during the second trimester are associated with preterm birth. *Journal of Nutrition*. 2015; 145(8): 1857-1864.
20. Robinson WR, Utz RL, Keyes KM, **Martin CL**, Yang Y. Birth cohort effect on abdominal obesity in the United States: The Silent Generation, Baby Boomers, and Generation X. *International Journal of Obesity*. 2013; 37(8): 1129-1134.
21. Robinson WR, Keyes KM, Utz RL, **Martin CL**, Yang Y. Birth cohort effects among US-born adults born in the 1980s: foreshadowing future trends in US obesity prevalence. *International Journal of Obesity*. 2013; 37(3): 448-454.
22. **Martin CL**, Huber LR, Thompson ME, Racine EF. Serum micronutrient concentrations and risk of uterine fibroids. *Journal of Women's Health*. 2011; 20(6): 915-922.
23. **Martin CL**, Brunner Huber LR. Physical activity and hypertensive complications during pregnancy: Findings from 2004-2006 North Carolina Pregnancy Risk Assessment Monitoring System. *Birth: Issues in Perinatal Care*. 2010; 37(3): 202-210.
24. Kirk JK, Strachan E, **Martin CL**, Davis SW, Peechara M, Lord R. Patient characteristics and process of care measures as predictors of glycemic control. *Journal of Clinical Outcomes Management*. 2010; 17(1): 27-30

Peer-Reviewed Journal Articles – Under Review

1. Lodge EK*, Haji-Noor Z, Gutierrez CM, Aiello AE, Hoyo C, Emch ME, **Martin CL**. Gestational exposure to neighborhood police-reported crime and early childhood blood pressure in Durham, NC.
2. Clark J, Bulka C, **Martin CL**, Roell K, Santos HP, O'Shea TM, Smeester L, Fry R, Dhingra R. Placental epigenetic gestational aging in relation to maternal social factors among infants born extremely preterm: a cohort study.
3. Xue F, Tang X, Kim G, Koenen KC, **Martin CL**, Galea S, Wildman D, Uddin M, Qu A. Heterogeneous mediation analysis on epigenomic PTSD and traumatic stress in an African American cohort.
4. Noppert GA, **Martin CL**, Zivich PN*, Aiello AE, Mullan Harris K, O'Rand A. Time-varying neighborhood disadvantage and memory in young adults.
5. Han X, Vines AI, **Martin CL**, Wegienka G, Baird DD, Harmon QE, Wise LA. Latent classes of traumatic events and patterns of class transition across the life course in Black women.

CONFERENCE & INVITED PRESENTATIONS

Conference Oral Presentations

1. **Martin CL**, Ye A, Dhingra R, Lodge EK, Aiello AE, Hoyo C. “The embodiment of place: Neighborhood police-reported crime during pregnancy and DNA methylation in stress-related genes.” 2021 Society of for Epidemiologic Research Annual Meeting. June 23-25.
2. *Lodge EK, Hoyo C, Aiello AE, **Martin CL**. “Prenatal exposure to neighborhood crime and offspring blood pressure from 0-3 years of age.” 2019 U.S. Developmental Origins of Health and Disease Annual Meeting in Chapel Hill, NC. September 9-10.
3. *Zikry TM, **Martin CL**, Li Gang, Uddin M, Galea S, Wildman DE, Koenen KC, Aiello AE. “The effect of neighborhood perception on the divergence between chronological and DNA methylation age.” 2019 Society for Epidemiologic Research Annual Meeting in Minneapolis, MN. June 19-21.
4. **Martin CL**, Uddin M, Wildman DE, Aiello AE. “Epigenetic predictors of lifetime trauma among a cohort of African Americans.” 2018 Interdisciplinary Association of Population Health Sciences Annual Meeting in Washington, DC. October 3-5.
5. **Martin CL**, Haan MN, Fernandez-Rhodes L, Lee A, Aiello AE. “Immigration history and inflammation profiles among older Mexican American adults.” 2018 Society for Epidemiologic Research Annual Meeting in Baltimore, MD. June 20-22.
6. **Martin CL**, Kane JB, Aiello AE, Harris KM. “Life course neighborhood disadvantage and metabolic syndrome in young adulthood.” 2017 Society for Epidemiologic Research Annual Meeting in Seattle, WA. June 21-23.
7. Valle CG, **Martin CL**, Tate DF. Nonadherence to daily weighing and activity tracking is associated with weight fluctuations among breast cancer survivors. 38th Annual Meeting and Scientific Sessions of the Society of Behavioral Medicine in San Diego, CA. March 29-April 1, 2017
8. **Martin CL**, Sotres-Alvarez D, Robinson WR, Daniels JL, Perrin E, Stuebe AM, Siega-Riz AM. “Dietary patterns and maternal cardiometabolic biomarkers during pregnancy.” 2015 Society for Pediatric and Perinatal Epidemiologic Research Annual Meeting in Denver, CO. June 15-16.
9. **Martin CL**, Hale D, Vaughn A, Ward DS. “Estimating parent misreporting of energy intake among preschool children attending day care.” 2013 Experimental Biology-American Society of Nutrition. Boston, MA. April 19-23.

Invited Lectures and Presentations

1. “Early Life Origins of Health Disparities: The Role of Neighborhood Environments.” Children’s Research Institute. University of North Carolina at Chapel Hill, April 13, 2021.
2. “Embodying Place: Social Environment & Epigenetic Mechanisms.” Center for Evolution and Medicine. Arizona State University, February 18, 2021
3. “The Violence We Endure: Healthcare.” Society for the Analysis of African American Public Health Issues (2020 annual meeting panel discussion), November 5, 2020
4. “Embodying Place: Neighborhoods environment and health disparities.” Carolina Population Center, University of North Carolina at Chapel Hill (Interdisciplinary Research Seminar Series), September 25, 2020 [*Rescheduled due to SARS-Cov2 pandemic closure*]

5. “Embodying Place: Neighborhoods environment and health disparities.” Carolina Population Center, University of North Carolina at Chapel Hill (Interdisciplinary Research Seminar Series), March 20, 2020 [*Cancelled due to SARS-Cov2 pandemic closures*]
6. “Embodying Place: Neighborhood social environment and cardiometabolic health disparities.” University of Texas-Austin Population Research Center, (Friday Brown Bag seminar), November 22, 2019
7. “Developmental origins of health disparities: A biosocial perspective.” University of North Carolina at Chapel Hill, Department of Epidemiology, (Reproductive/Perinatal/Pediatric Epidemiology Program seminar), October 29, 2019
8. “Origins of cardiometabolic health disparities.” Virginia Commonwealth University, Department of Health Behavior and Policy, (Seminar Series), March 26, 2019
9. “How old are you? Social Stressors and epigenetic aging.” University of North Carolina at Chapel Hill, Carolina Population Center, (Carolina Population Center Interdisciplinary Workshop), March 21, 2019
10. “Epigenetic mechanisms of maternal pre-pregnancy obesity and offspring obesity risk.” University of North Carolina at Chapel Hill, Department of Epidemiology, (Reproductive/Perinatal/Pediatric Epidemiology Program seminar), October 30, 2018
11. “Origins of cardiometabolic health disparities: A multi-level life course approach.” University of Texas at Austin, Department of Nutritional Sciences, (Nutrition Seminar Series), October 19, 2018
12. “Early life neighborhood disadvantage and metabolic syndrome risk in adulthood.” University of North Carolina at Chapel Hill, Carolina Population Center, (Carolina Population Center Interdisciplinary Workshop), Fall 2017.
13. “Life course neighborhood disadvantage and metabolic syndrome in adulthood.” University of North Carolina at Chapel Hill, Department of Epidemiology, (Social Epidemiology Seminar), Fall 2017.
14. “Eating for two: the impact of maternal dietary patterns on maternal and child health.” University of North Carolina at Charlotte, Department of Public Health Sciences, (Women’s Health Research Interest Group), Spring 2017
15. “Immigration status in the US and biomarkers of stress and chronic disease.” University of North Carolina at Chapel Hill, Department of Epidemiology, (Social Epidemiology Seminar), Fall 2016.

HONORS & AWARDS

2019	UNC Postdoctoral Award for Research Excellence
2016-2018, 2020-2021	NIH Loan Repayment Program Award (NIMHD)
2016	African American Collaborative Obesity Research Network Conference, Travel Scholarship
2013-2014	UNC Graduate School Dissertation Completion Fellowship (<i>Declined</i>)

2011	7 th Annual NICHD-IHDCYH Summer Institute in Reproductive and Perinatal Epidemiology
2010	Maternal & Child Health Bureau Graduate Student Internship Program
2010	Delta Omega Inductee, Beta Phi Chapter
2009-2010	UNC North Carolina Minority Presence Fellowship
2009	Wong-Moulton Scholarship in Epidemiology
2009	UNC Charlotte Best Master's Thesis Award in Life Science
2009	UNC Charlotte Health Research Academy Best Master's Level Paper

TEACHING ACTIVITIES

Courses

2021	EPID 704: <i>Socially Responsible Epidemiology</i> Department of Epidemiology University of North Carolina at Chapel Hill Role: Instructor 1 semester (Fall 2021); 24 doctoral students
2018-2019	EPID 799: <i>Seminars in Social Epidemiology</i> Department of Epidemiology University of North Carolina at Chapel Hill Role: Co-Instructor 2 semesters; 9 master's/doctoral students (Fall 2018) and 4 (Fall 2019)
2018	EPID 826: <i>Introduction to Social Epidemiology: Concepts and Measures</i> Department of Epidemiology University of North Carolina at Chapel Hill Role: Co-Instructor 1 semester (Fall 2019); 19 doctoral students

Guest Lectures

2017, 2019	Lecturer "Multilevel and neighborhood influences on health." EPID 826: <i>Introduction to Social Epidemiology: Concepts and Measures</i> Department of Epidemiology University of North Carolina at Chapel Hill
2018-2019	Lecturer "Operationalizing Theory and Constructs in Social Epidemiology." EPID 827: <i>Social Epidemiology: Analysis and Interpretation.</i> Department of Epidemiology University of North Carolina at Chapel Hill

Current Students

*Denotes MPH student

1. Lea Ghastine*, 2020-

2. Samantha Neally, 2021-

Current Postdoctoral Fellows

1. Celeste Butts, 2021-
2. Jeanie Santauralaria, 2021-

Bachelor's Honors Thesis Committee Member

1. Amy Yu (Biostatistics), 2020-2021
2. Emma Crenshaw (Biostatistics), 2019-2020

Doctoral Dissertation Committee Chair

1. Joelle Atere-Roberts (Epidemiology), 2021-

Doctoral Dissertation Committee Member

1. Evans Lodge (Epidemiology), 2020-
2. Amber Hall (Epidemiology), 2020-
3. Dayna Neo (Epidemiology), 2020-
4. LaShaunta Glover (Epidemiology), 2020-
5. Hanna Jardel (Epidemiology), 2021-
6. Funmi Arogbokun (Epidemiology), 2021-

Predoctoral Training Preceptor

1. Alison Nulty (CPC Biosocial Trainee), 2021-
2. Joelle Atere-Roberts (Epidemiology), 2021-
3. Nafeesa Andrabi (CPC Biosocial Trainee), 2021-

SERVICE ACTIVITIES

University of North Carolina

- | | |
|----------------|---|
| 2020 – present | Internal Advisory Board Member, Center for Environmental Health & Susceptibility |
| 2021 – present | Training Program Committee, Biosocial T32 Training Program Carolina Population Center |

National and Professional Society Activities

- | | |
|------|---|
| 2019 | Panelist, Funding 101: Student Lunchtime Session. Interdisciplinary Association for Population Health Sciences (IAPHS) Annual Meeting in Seattle, WA. |
| 2019 | Session Co-chair, Professional Development Session: Ask Me Anything? Society for Epidemiologic Research (SER) Annual Meeting, Minneapolis, MN |
| 2018 | Social Determinants of Health Working Group Member, Jackson Heart Study |
| 2018 | Program Committee, Interdisciplinary Association for Population Health Science |

Scientific Journal Peer Review

- Epigenetics
PLoS One
Psychoneuroendocrinology

Journal of Nutrition
British Journal of Nutrition
Social Science & Medicine
International Journal of Obesity
American Journal of Clinical Nutrition
American Journal of Epidemiology

Conference Abstract Review

Interdisciplinary Association for Population Health
Society for Epidemiologic Research
Society for Perinatal and Pediatric Epidemiological Research

PROFESSIONAL MEMBERSHIPS

2019 – present	U.S. Developmental Origins of Health and Disease
2018 – present	Interdisciplinary Association for Population Health Science
2011 – present	Society for Perinatal and Pediatric Epidemiologic Research
2011 – present	Society for Epidemiologic Research