

Grace A. Noppert

PhD, MPH, MA

Professional Positions

Postdoctoral Scholar | University of North Carolina | Carolina Population Center 2018 - Present

National Institute on Aging, K99 Postdoctoral Scholar (Present) and National Institute on Child Health and Human Development, T32 Postdoctoral Scholar (05/2018-09/2019)

Research: Immunosenescence, social epidemiology, social drivers of infectious disease, life course perspectives, population health. Mentors: Allison Aiello, & Robert Hummer.

Postdoctoral Scholar | Duke University | Center for the Study of Aging and Human Development 2016 –2018

National Institute on Aging, T32 Aging Training Program. Research: Aging, sociology life course epidemiology, immunosenescence. Mentors: Harvey J. Cohen, Angela O’Rand, & Allison Aiello.

Education

PhD in Epidemiology | University of Michigan | School of Public Health 2012 - 2016

Dissertation: Changing the Paradigm: Using an Integrative Approach to Improve Understanding of Tuberculosis Control in Michigan. Committee: Mark Wilson (Co-Chair), Zhenhua Yang (Co-Chair), Philippa Clarke, Wen Ye, & Peter Davidson.

MPH in Epidemiology | Columbia University | Mailman School of Public Health 2010 - 2012

Thesis: Socioeconomic Indicators of Global TB Rates

MA in Teaching Secondary Science | Johns Hopkins University | School of Education 2008 - 2010

Thesis: Portfolio in teaching middle and high school science.

BA in Biology | DePauw University 2004 - 2008

Minor: English Literature

Research Experience

Research Assistant in Epidemiology | University of Michigan | School of Public Health 2012 - 2016

Research: epidemiology, social epidemiology, racial/ethnic disparities. Mentors: Mark Wilson, Zhenhua Yang, Philippa Clarke, & Peter Davidson.

Project Manager in Sustainable Systems | University of Michigan | School of Natural Resources 2014 - 2018

Research: epidemiology, social epidemiology, racial/ethnic disparities. Mentor: Jose Alfaro.

Research Assistant | Columbia University | Mailman School of Public Health 2010 - 2012

Research: Social epidemiology, HIV/AIDS. Mentor: Susie Hoffman.

Intern | World Health Organization | Stop TB Department Geneva, Switzerland 2010 - 2012

Research: Social epidemiology, HIV/AIDS. Mentors: Paul Nunn, Soleil Labelle.

Research Assistant | DePauw University | Biology 2006 - 2008

Research: Molecular biology, serotonin receptor sequencing in zebrafish. Mentor: Henning Schneider.

Teaching Experience

Co-Instructor | University of North Carolina | Gillings School of Global Public Health 2019

- EPID 799A: Seminar in Social Epidemiology: Assisted in the administration of the course along with Dr. Chantel Martin. Coordinated speakers and topics, assisted with course grading, and facilitated discussion.

- EPID 643 & EPID 644: Assisted in the administration of the Surveillance/Datasets course and the Contemporary Methods course under Drs. Belinda Needham and Alison Mondul. Prepared class exercises and completed course grading.
- EPID 642 & EPID 641: Assisted in the administration of the Sampling and Power course and the Measurement and Design course under Drs. Sung Kyun Park and Carlos Mendes de Leon. Prepared quizzes and homework assignments and completed course grading.
- Public Health 200: Led 3 discussion sections Health and Society course for undergraduates under Dr. Kenneth Warner. Reviewed and graded homework for class of 52 students.
- EPID 709: Reviewed HW and assisted in grading exams for Fundamentals of Epidemiologic Research.
- EPID 655: Assisted in the administration of the Field Studies in Epidemiology Course under Drs. Betsy Foxman, Allison Aiello, Carlos Mendes de Leon, and Sung Kyun Park.

Curriculum Specialist & Advisor | Teach For America

2010 - 2011

Taught the introductory teaching methods courses for 65 incoming teachers.

Teaching Assistant | Columbia University | Mailman School of Public Health

2011

Led a recitation of 25 students in the Introduction to Biostatistics course under Dr. Martina Pavlicova. Assisted in exam preparation, grading of homework and holding of weekly office hours.

Science Teacher | Baltimore City Schools | REACH Partnership

2008 - 2010

Taught science for 6th, 7th, and 9th grade in Baltimore City Schools. Oversaw middle school science department including the design and development of the science curriculum.

Publications

1. Snyder-Mackler N, Burger JR, Gaydos L, Belsky D, **Noppert GA**, Campos FA, Bartolomucci A, Yang YC, Aiello AE, O'Rand A, Harris KM, Shively C, Alberts SC, and Tung J. "Social determinants of health and survival in humans and other animals." *Science*. [In Press].
2. **Noppert GA**, Clarke P, Hicken, M, and Wilson ML. "Understanding the Intersection of Race and Place: the case of tuberculosis in Michigan." Submitted to the *BMC Public Health* [In Press].
3. Stebbins RC, **Noppert GA**, Aiello AE, Cordoba E, Ward J, & Feinstein L. "Persistent disparities in pathogen burden in the United States, 1999-2014. *Epidemiology and Infection*. 2019;147.
4. **Noppert GA**, Yang Z, Clarke P, Davidson P, Ye W, and Wilson ML. "Contextualizing tuberculosis transmission in space and time: integrating Mycobacterium tuberculosis strain genotyping data with tuberculosis surveillance and neighborhood data" *Annals of Epidemiology*. 2019; 40: 21-27.
5. **Noppert GA**, Aiello AE, O'Rand A, Cohen HJ. "Race/Ethnic and Educational Disparities in the Association Between Pathogen Burden and a Laboratory-Based Cumulative Deficits Index" *Journal of Racial and Ethnic Disparities*. 2019; 1-10.
6. Malosh RE, **Noppert GA***, Zelner J, Martin ET, Monto AS. "Social patterning of acute respiratory illnesses in the Household Influenza Vaccine Evaluation (HIVE) Study 2014-2015. *Epidemiology and Infection*. 2019; 147. *Co-first author.
7. **Noppert GA**, Malosh R, Moran EB, Ahuja SD, Zelner J. "Contemporary Social Disparities in TB Infection and Disease in the U.S.: A Review. *Current Epidemiology Reports*. 2018; 5(4):442-449.
8. **Noppert GA**, Brown CS, Chanti-Ketterl M, Hall KS, Newby LK, Cohen HJ, and Morey MC. "The Impact of Multiple Dimensions of Socioeconomic Status on Physical Functioning Across the Life Course. *J. Gerontology and Geriatric Medicine*. 2018; 4.
9. **Noppert GA**, Aiello AE, O'Rand A, Cohen HJ. "Investigating pathogen burden in relation to a cumulative deficits index in a representative sample of US adults." *Epidemiology and Infection*. 2018: 1-9.
10. **Noppert GA** & Clarke P. "The Modern Profile of Tuberculosis: Developing the TB Social Survey to understand contemporary social patterns in tuberculosis." *Journal of Public Health Nursing. Public Health Nursing*. 2017.

11. Singer P, **Noppert GA**, Jenkins CH. "The State of Tuberculosis in the United States: Gaps in Federal and State Screening." *American Journal of Public Health*. 2017; 107(11): 1750-1752.
12. **Noppert GA**, Wilson ML, Clarke P, Ye W, Davidson P, Yang Z. "Race and Nativity are Major Determinants of Tuberculosis in the U.S.: Evidence of Health Disparities in TB Incidence in Michigan, 2004-2012." *BMC Public Health*. 2017; 17(1):538.
13. **Noppert GA**, Yang Z, Clarke P, Ye W, Davidson P, Wilson ML. "Individual- and Neighborhood-Level Contextual Factors are Associated with *Mycobacterium tuberculosis* Transmission: Genotypic Clustering of Cases in Michigan, 2004-2012." *Annals of Epidemiology* 2017; 27(6):371-376.e5.
14. **Noppert GA**, Kubale J, Wilson ML. "Analyses of Infectious Disease Patterns and Drivers Largely Lack Insights from Social Epidemiology: Contemporary Patterns and Future Opportunities." *J Epidemiol Community Health*. 2016; 71(4):350-355.
15. **Noppert G**, Yang Z, Sandy C, & Chirenda J. Trends of sputum-smear positive tuberculosis in Zimbabwe: 2008-2011. *BMC Research Notes*. 2015; 8(1), 575.
16. Schneider H, Fritzky L, Williams J, Heumann C, Yochum M, Pattar K, **Noppert G**, Mock V, Hawley E. Cloning and expression of a zebrafish 5-HT(2C) receptor gene. *Gene*. 2012; 502(2): 108-17.

In Progress

17. **Noppert GA** & Clarke PJ. "Making the invisible visible: the current face of tuberculosis in the United States." Submitted to *Journal of Cities and Health*. [Revise and Resubmit; Under Review].
18. **Noppert GA**, Stebbins RC, Dowd JB, Hummer RA, & Aiello AE. "Life Course Social Disadvantage and the Aging Immune System: Findings from the Health and Retirement Study." Submitted to *Journal of Gerontology: Social Sciences*. [Revise and Resubmit; Under Review].
19. **Noppert GA**, Feinstein L, Dowd JB, Stebbins RC, Zang E, Needham B, Meier HCS, Simanek A, & Aiello AE. "Pathogen Burden and Leukocyte Telomere Length in the United States." Submitted to *Experimental Gerontology*.
20. Moran E, Kubale J, **Noppert GA**, Malosh R*, and Zelner J.* "Inequality in acute respiratory infection outcomes in the United States: A review of the literature and its implications for public health policy and practice." Published on medRxiv, 2020. *indicates co-senior authors

Invited Lectures & Presentations

1. **Noppert GA**, Stebbins RC, and Aiello AE. "The Aging Immune System: Educational Attainment, Cytomegalovirus, and Cognition in the Health and Retirement Study." Oral presentation for the Biomarker Network Meeting at the annual meeting of the Population Association of America Meeting, 2020. *Cancelled due to COVID-19*.
2. **Noppert GA**. "Biomarkers in Social Epidemiology." Guest lecture for course entitled Introduction to Social Epidemiology, Gillings School of Global Public Health, University of North Carolina. 8 November 2019.
3. **Noppert GA**. "The complicated relationship of education and health in young adulthood." Symposium on Sociocultural Determinants of Racial Health Disparities Across the Life Course. Gerontological Association of America Annual Meeting. Austin, TX. November 2019.
4. **Noppert GA**, Aiello AE, Gaydos L, Mullan Harris K, Goodwin A, & Hummer RA. "Is Educational Attainment Associated with Cardiometabolic Health in Young Adulthood? It's Complicated." Interdisciplinary Association of Population Health Research Annual Meeting. Seattle, WA. October 2019.
5. **Noppert GA**, Stebbins RC, Dowd JB, and Aiello AE. "Life Course Social Disadvantage and the Aging Immune System: Findings from the Health and Retirement Study. SER 52th Annual Meeting. The Hyatt Regency Minneapolis, MN. June 2019.
6. Stebbins RC, **Noppert GA**, Yang YC, and Aiello AE. "Recent Stressful Life Events, Lifetime Trauma, and Cognitive Decline in the Health and Retirement Study. SER 52th Annual Meeting. The Hyatt Regency Minneapolis, MN. June 2019.
7. Martinez, R.A., Martin, C., **Noppert G**., Ward-Caviness, C., Uddin, M., Galea, S., Koenen, K.C., Wildman, D.E., Aiello, A.E. Childhood adversity and indicators of immune and epigenetic aging in adulthood. SER 52th Annual Meeting. The Hyatt Regency Minneapolis, MN. June 2019.
8. Martinez, R.A., Martin, C., **Noppert G**., Ward-Caviness, C., Uddin, M., Galea, S., Koenen, K.C., Wildman, D.E., Aiello, A.E. Childhood adversity and indicators of immune and epigenetic aging in adulthood. Symposium on Biosocial Approaches to Population Health Across the Life Course. Carolina Population Center, UNC at Chapel Hill, Chapel Hill, NC. May 2019.

9. **Noppert GA.** "Biomarkers in Social Epidemiology." Guest lecture for course entitled Introduction to Social Epidemiology, Gillings School of Global Public Health, University of North Carolina. 9 November 2018.
10. **Noppert GA.** "Origins of Health Disparities in Biological Aging: the Case for Studying Immune Function." Lecture for Carolina Population Center Training Seminar. 8 November 2018.
11. **Noppert GA.** "Origins of Health Disparities in Biological Aging: the Case for Studying Immune Function." Invited talk for the Social Epidemiology Seminar Series, Gillings School of Global Public Health, University of North Carolina. 7 November 2018.
12. **Noppert GA.** "Origins of Health Disparities in Biological Aging: the Case for Studying Immune Function." Lecture for Interdisciplinary Association for Population Health Sciences meeting. 5 October 2018.
13. **Noppert GA & Thiery A.** "Nature vs Nurture: Epigenetics and Gene by Environment Interactions." Guest lecture for Human Development, Duke University. 18 September 2017.
14. **Noppert GA & Aiello AE.** "The Impact of Pathogen Burden on Health and Longevity." Presentation for the International Association of Gerontology and Geriatrics. 26 July 2017.
15. **Noppert GA.** "TB Transmission in Older Populations: A Re-Examination of Risk Groups" Presentation for the International Association of Gerontology and Geriatrics. 24 July 2017.
16. **Noppert GA.** "Understanding the Detroit Disparity in TB." Presentation for the Population Association of America Annual Meeting. Chicago, IL. April 2017.
17. **Noppert GA.** "Social Vulnerability and TB in Wayne County, Michigan: the Intersection of Race and Nativity." Presentation for the Social Epidemiology Seminar at the University of North Carolina, Gillings School of Global Public Health. Chapel Hill, NC. 22 February 2017.
18. **Noppert GA.** "Early Life Disadvantage, Pathogen Burden, and Immune Dysfunction." Presentation for Research Training Program at the Duke University, Center for the Study of Aging and Human Development. Durham, NC. 8 February 2017.
19. **Noppert GA, Yang Z, Clarke P, Wilson ML.** "Drivers of Mycobacterium tuberculosis transmission in the U.S. Context: the Effects of the Neighborhood on U.S. Populations." Presentation for the Society for Epidemiologic Research. Miami, FL. 23 June 2016.
20. **Noppert GA.** "The New, Old Face of TB: Lessons from the Field." Presentation for the University of Michigan, Center for Social Epidemiology and Population Health seminar series. Ann Arbor, MI. 20 January 2016.
21. **Noppert GA.** "Social Determinants of TB or Bringing History Back into TB Control." Guest Lecture for Epid 816: Epidemiology of Tuberculosis. University of Michigan, School of Public Health. Ann Arbor, MI. 30 October 2015.
22. **Noppert GA, Clarke P., Yang Z., Wilson M.L.** "Sick in the City: Patterns and Predictors of Tuberculosis in Detroit." Presentation for the Reimagining Health in Cities Conference. Drexel University. Philadelphia, PA. 10 September 2015.
23. **Noppert GA, Wilson, M.L., Clarke, P., Ye, W., Davidson, P., Yang, Z.** "Why We Should Still Worry About Tuberculosis in the U.S.: Evidence of health disparities in TB incidence in Michigan, 2004-2012." Presentation for the Society for Epidemiologic Research. Denver, CO. 16 June 2015.
24. **Noppert GA.** "Low Burden, High Disparity: TB in the U.S. from a social perspective." Presentation for the University of Michigan, Center for Social Epidemiology and Population Health seminar series. Ann Arbor, MI. 2 April 2015.
25. **Noppert GA.** "Context Matters: Infectious Disease in our Backyard." Presentation for University of Michigan student organization, Medlife. Ann Arbor, MI. 17 March 2014.
26. **Noppert GA.** "Trends in the Distribution of Tuberculosis in Zimbabwe from 2008-2011." Poster presentation for University of Michigan: Department of Epidemiology Poster Session. Ann Arbor, MI, 31 January 2014.
27. **Labelle S, Noppert GA.** "Using a Human Resource Development Approach to Enhance Capacity in High-Burden Tuberculosis Countries Around Technical Assistance." Paper accepted for poster presentation at the International Conference of Education, Research and Innovation, Madrid, Spain, 14 November 2011.
28. **Noppert GA** "Applying Biostatistics to a Social Epidemiology Setting." Oral presentation for the Introduction to Biostatistics course. New York, NY, 23 November 2011.
29. **Labelle S, Noppert G.** Using a Human Resource Development Approach to Enhance Capacity in High-Burden Tuberculosis Countries for Planning, Accessing and Coordinating Technical Assistance. International Conference of

Education, Research and Innovation. Madrid, Spain: ICERI; 2011.

30. **Noppert GA.** "Using Public Health Tools to Build Capacity in Countries for Implementing National Tuberculosis Programs." Poster presentation at the Department of Epidemiology, Poster Session for Masters Students. New York, NY, 28 October 2011.

Research Support

National Institute on Aging | K99/R00 | 1K99AG062749-01A1 | Principal Investigator Awarded

Project Title: Early-Life Social Disadvantage and its Impact on Pathogen Burden and Immune Dysfunction Across the Life Course.
Time Period: 9/1/2019 – 4/30/2024

Project Summary:

Disparities in aging persist despite robust efforts to ameliorate them. Sociobiological processes beginning in childhood are increasingly being examined as critical drivers of these disparities. This project seeks to explore the impact of early life experiences of poverty and stress on later life inflammation and immune dysfunction, with a specific focus on infectious burden as a key mediator of these processes.

Infectious Disease Society of America | Grant | Co- Investigator Awarded

Project Title: The Role of Dementia-Associated Pathogen Burden in the Development of Alzheimer's Disease and Other Dementias
Time Period: Pending
Amount: \$50,000

Eunice Kennedy Shriver National Institute of Child Health and Human Development
1 T32- HD091058-01 | Trainee (Principal Investigators: Allison Aiello & Robert Hummer) 2018-2019

Grant Title: From Biological to Social Processes: Interdisciplinary Training in Life Course Research.
Time Period: 4/30/2018 – 5/1/2019

National Institute on Aging | 5 T32- AG000029-41 | Trainee (Principal Investigator: Harvey Cohen) 2016-2018

Grant Title: Behavior and Physiology in Aging.
Time Period: 8/1/2016 – 4/30/2018

Rackham Dissertation Fellowship Award | One-Term 2016

Research award to support doctoral trainees during the last semester of their dissertation research

Rackham Dissertation Fellowship Award 2014-2016

Project Title: Socio-demographic Characteristics of Tuberculosis in Metro Detroit.
Time Period: 7/1/2014 – 5/1/2016

Robert Wood Johnson Foundation | 70278 | Health and Society Scholars Program 2014-2015

Project Title: Social and Behavioral Determinants of Tuberculosis Risk in Michigan.
Time Period: 9/1/2014 – 8/31/2015
Amount: \$18,750

Honors & Awards

Commencement Speaker | University of Michigan | School of Public Health 2016

Doctoral Student Poster Competition Winner | University of Michigan 2014

Outstanding Teacher of the Year | Baltimore City Schools 2010

Key Note Speaker | Teach For America | Annual Symposium 2008

Professional Activities

Ad hoc Reviewer Current

- Journal of Racial and Ethnic Disparities
- Public Health Journal
- American Journal of Epidemiology
- American Journal of Public Health

- Annals of Epidemiology

Member Society for Epidemiologic Research	Current
Member Center for Social Epidemiology and Population Health (CSEPH)	Current
Member Sustainability Without Borders	Current
Student Representative University of Michigan School of Public Health Doctoral Students	2013-2014
Delegate University of Michigan School of Public Health delegation to Thailand	2014
Committee Member University of Michigan Social Epidemiology Search Committee	2014
Committee Member University of Michigan Rackham Student Advisory Committee for Biomedical Sciences	2014