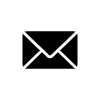
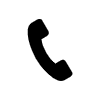
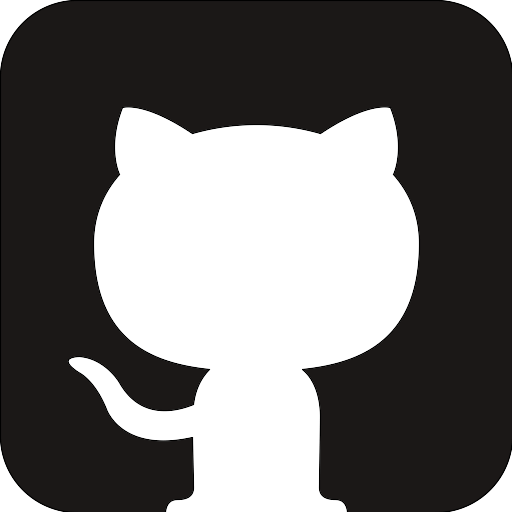
# CURRICULUM VITAE

## Freida A. Blostein

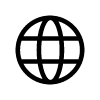
Updated May 31, 2022

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[](https://twitter.com/freidablostein) [Twitter: freidablostein](https://twitter.com/freidablostein)

[ Website: freidablostein.com](https://freidablostein.com)

## Education

**Doctorate of Philosophy** Epidemiologic science, University of Michigan, Ann Arbor, Michigan. Degree expected November 2022.  
Dissertation: Salivary omics measurements as biomarkers in epidemiological analysis.  
Advisors: Kelly M. Bakulski & Betsy Foxman.

**Masters of Public Health** Epidemiology, University of Michigan, Ann Arbor, Michigan. 2018.

**Bachelors of Science** with highest distinction Major: Evolutionary Anthropology, Minor: Applied Statistics, University of Michigan, Ann Arbor, Michigan. 2016.

## Funding

**2022** Testing the role of metabolic interactions and processes in the formation of cariogenic oral microbiomes, Integrated Training in Microbial Systems Mini Grant. 2022 - 2023. $10,000, PI: Blostein.

**2020** F31 DE029992 Environmental and Genetic Factors Contributing to the Development of the Early-Life Oral Microbiome and its Influence on Early Childhood Caries, National Institute of Health; National Institute for Dental and Craniofacial Research. 2020 - 2023. $105,000, PI: Blostein.

**2018** T32 HG00040 Genome Science Training Program, National Genome Research Institute of the National Institutes for Health, 2018 - 2020, PI: Boehnke.

**2018** Fellow; Integrated Training in Microbial Systems, University of Michigan.

## Awards & Honors

**2021** AAAS/Science Program for Excellence: 1-year Sponsored American Academy for the Advancement of Science Membership.

**2019** Science Communication Fellow, University of Michigan Natural History Museum

**2018** Rackham Graduate School International Travel Award

**2018** Summa Cum Laude, University of Michigan School of Public Health

**2017** Epidemiology Department Travel Award

**2017** Top Poster, University of Michigan, School of Public Health, Department of Epidemiology Poster Session

**2016-2018** School of Public Health Dean’s Scholarship

**2016** Summa Cum Laude, University of Michigan

**2015** Phi Beta Kappa

**2014, 2015, 2016** James B. Angell Scholar, University of Michigan

**2013, 2014, 2015** University Honors, University of Michigan

**2012-2016** Sydney J and Irene Shipman Scholarship Awardee

## Publications

**Blostein, F,** Bhaumik, D, Davis, E, Salzman, E, Shedden, K, Duhaime, M, Bakulski, KM, McNeil, DW, & Marazita, ML. (2022). Evaluating the ecological hypothesis: Early life salivary microbiome assembly predicts dental caries in a longitudinal case-control study. *PREPRINT Submitted*. <https://doi.org/10.21203/rs.3.rs-848589/v2>

**Blostein, F,** Fisher, J, Dou, J, Schenper, L, Ware, EB, Notterman, DA, Mitchell, C, & Bakulski, KM. (2022). Polymethylation scores for prenatal maternal smoke exposure persist until age 15 and are detected in saliva. *medRxiv PREPRINT Submitted*, 2021.11.30.21267020. <https://doi.org/10.1101/2021.11.30.21267020>

**Blostein, F,** Foote, S, Salzman, E, McNeil, DW, Marazita, ML, Martin, ET, & Foxman, B. (2021). Associations between salivary bacteriome diversity and salivary human herpesvirus detection in early childhood: A prospective cohort study. *Journal of the Pediatric Infectious Diseases Society*. <https://doi.org/10.1093/jpids/piab044>

**Blostein, F,** & Foxman, B. (2021). Insights into epidemiologic assessments of the microbiome and challenges in identifying microbiome relationships with adverse pregnancy outcomes. *Current Epidemiology Reports*, *8*, 143–150. <https://doi.org/10.1007/s40471-021-00263-8>

Davis, E, Martinez, G, **Blostein, F,** Marshall, T, Jones, AD, Jansen, E, McNeil, DW, Neiswanger, K, Marazita, ML, & Foxman, B. (2021). Dietary patterns and risk of a new carious lesion postpartum: A cohort study. *Journal of Dental Research*, 220345211039478. <https://doi.org/10.1177/00220345211039478>

**Blostein, F,** Jansen, EC, Jones, AD, Marshall, TA, & Foxman, B. (2020). Dietary patterns associated with dental caries in adults in the united states. *Community Dentistry and Oral Epidemiology*, *48*, 119–129. <https://doi.org/10.1111/cdoe.12509>

**Blostein, F,** Gelaye, B, Sanchez, SE, Williams, MA, & Foxman, B. (2020). Vaginal microbiome diversity and preterm birth: Results of a nested case-control study in peru. *Annals of Epidemiology*, *41*, 28–34. <https://doi.org/10.1016/j.annepidem.2019.11.004>

Collingwood, A, **Blostein, F,** Seekatz, AM, Wobus, CE, Woods, RJ, Foxman, B, & Bachman, MA. (2020). Epidemiological and Microbiome Associations Between Klebsiella pneumoniae and Vancomycin-Resistant Enterococcus Colonization in Intensive Care Unit Patients. *Open Forum Infectious Diseases*, *7*. <https://doi.org/10.1093/ofid/ofaa012>

Manohar, J, Hatt, S, DeMarzo, BB, **Blostein, F,** Cronenwett, AEW, Wu, J, Lee, KH, & Foxman, B. (2020). Profiles of the bacterial community in short-term indwelling urinary catheters by duration of catheterization and subsequent urinary tract infection. *American Journal of Infection Control*, *48*, 178–183. <https://doi.org/10.1016/j.ajic.2019.08.005>

Ramadugu, K, **Blostein, F,** Bhaumik, D, Jiang, W, Davis, E, Salzman, E, Srinivasan, U, Marrs, CF, Neiswanger, K, McNeil, DW, Marazita, ML, & Foxman, B. (2020). Co-occurrence of yeast, streptococci, dental decay, and gingivitis in the post-partum period: results of a longitudinal study. *Journal of Oral Microbiology*, *12*, 1746494. <https://doi.org/10.1080/20002297.2020.1746494>

Townsend, T, **Blostein, F,** Doan, T, Madson-Olson, S, Galecki, P, & Hutton, DW. (2020). Cost-effectiveness analysis of alternative naloxone distribution strategies: First responder and lay distribution in the united states. *The International Journal on Drug Policy*, *75*, 102536. <https://doi.org/10.1016/j.drugpo.2019.07.031>

**Blostein, F,** Assari, S, & Caldwell, CH. (2017). Gender and ethnic differences in the association between body image dissatisfaction and binge eating disorder among blacks. *Journal of Racial and Ethnic Health Disparities*, *4*, 529–538. <https://doi.org/10.1007/s40615-016-0255-7>

**Blostein, F,** Levin-Sparenberg, E, Wagner, J, & Foxman, B. (2017). Recurrent vulvovaginal candidiasis. *Annals of Epidemiology*, *27*, 575–582.e3. <https://doi.org/10.1016/j.annepidem.2017.08.010>

## Presentations

### Oral presentations

**July 2022** Early life assembly of the salivary microbiome is associated with maternal microbiome and future dental caries. Beneficial Microbes. Oral presentation.

**March 2022** Does Mothers’ Oral Microbiome Seed Children’s Microbiome Increasing Caries Risk? American Association for Dental, Oral, and Craniofacial Research Annual Meeting. Lightening talk.

**October 2021** Polymethylation Scores for Prenatal Maternal Smoke Exposure Persist Until Age 15 and are Detected in Saliva. International Genetics Epidemiology Society Annual Meeting. Poster/Lightening talk.

**September 2020** Epidemiology: A career for the mathematically minded. University of Michigan Dearborn Undergraduate Mathematics Club.

**July 2019** A tale of two clusterings: Comparison of clustering techniques in longitudinally collected salivary samples. University of Michigan Microbiome Seminar.

**October 2017** Improving naloxone distribution in the opioid epidemic: a cost-effectiveness analysis of naloxone distribution comparing first responders and laypeople. 39th Annual Meeting of the Society for Medical Decision Making.

**April 2016** Creating research opportunities with community-based organizations in Detroit, MI. 30th Annual Meeting for Undergraduate Research.

### Posters

**July 2021** Triangulating the early childhood caries salivary microbiome: a longitudinal case-control study. International Association of Dental Research Annual Meeting.

**October 2020** Do dental plaque and salivary microbiomes have independent associations with early childhood caries? A case-control study. Exploring Human Host-Microbiome Interactions in Health and Disease 2020.

**October 2020** Triangulation of the early childhood caries microbiome using three techniques for high-dimensional microbial data analysis. Cold Spring Harbor Laboratory Microbiome Virtual Meeting 2020.

**November 2018** Herpes virus acquisition in infancy: association with the salivary microbiome? The International Conference on Molecular Epidemiology and Evolutionary Genetics of Infectious Disease.

**July 2018** Dietary patterns predict dental decay in the U.S.: Results from a nationally representative survey. International Association of Dental Research 2018.

**July 2018** Candida albicans and caries in post-partum Appalachian women. Poster. International Association of Dental Research 2018.

**March 2015** Beyond a white woman’s disease: Gender and ethnic differences in binge eating disorder among blacks. 14th Annual Michigan Epidemiology Conference.

## Teaching

**All teaching conducted at the University of Michigan, Ann Arbor, Michigan**

### Instructor

**Machine Learning for Epidemiological Analysis in the Era of Big Data (EPID 708)**; 2020 & 2021. 20-30 graduate-level students/session, 1 section/year, summer session. Title: Teaching assistant.

**Advanced Methods in Epidemiology (EPID 824)**; 2020-2021. 1-2 graduate-level students/session, 1 section/year, fall and winter semester. Title: Departmental tutor.

**Programming in R for Epidemiologists Summer Session in Epidemiology**; 2019. 1 graduate-level student/session, 1 section/year, summer session. Title: Departmental tutor.

**Reproductive Health (NURSING 352)**; 2016-2017. 80-100 undergraduate-level students/semester, 1 section/year, fall and winter semester. Title: Instructional aide.

**Undergraduate Research Opportunity Program (UC 280)**; 2014-2016. 25-35 undergraduate-level students/semester, 2 sections/year, fall and winter semester. Title: Peer advisor.

**First Year Writing Seminar (RCCORE 100)**; 2013-2014. 25-30 undergraduate-level students/section, 1 section/year, fall semester. Title: Teaching assistant.

### Guest lecturing

**Molecular Epidemiology (EPID 582)**; 2021. 55-85 graduate-level students/session.

**Epidemiologic Data Analysis Using R (EPID 674)**; 2020. 15-20 graduate-level students/session.

**Biological Basis of Human Disease (EPID 512)** 2020. 50-85 graduate-level students/session.

## Skills

**Computer** R, Python, SAS, LATEX, Bash, Microsoft Office

**Language** Spanish – Proficient

## Service & Science Communication

**Statistics in the Community volunteer** Serves as a team analyst for Statistics in the Community, a community outreach program where graduate students provide free expertise on data organization, analysis and interpretation to non-profit governmental and community organizations.

**Women in Science and Engineering Student Programming Board** Serves as a student liaison for the Women in Science and Engineering program at the University of Michigan.

**Podcast Host** Developed, wrote and produced a 3 episode miniseries entitled Get the Dirt on ’Crobecast: an ITiMS podcast on microbial systems, which explored the soil crisis in the United States, and the science behind soil revitalization. [Available on Apple Podcasts, Spotify & more…](https://anchor.fm/itims-podcast)

**Peer Editor** Acts as a pre-submission peer reviewer of scientific manuscripts prepared by health researchers from low- and middle-income countries in order to develop competitive manuscripts for submission to a peer-reviewed journal. Through the Pre-publication Support Service.

**Volunteer Tutor** 2018-2020 Tutored elementary – high school aged children in math, science, reading and writing through 826Michigan.

**Ad Hoc Reviewer**

*American Journal of Epidemiology*

*BMC Oral Health*

*Pediatric Infectious Disease Journal*

*Scientific Reports*

**Professional Memberships**

International Association for Dental Research

International Society of Microbial Ecology

Data Visualization Society