

Freida Blostein

Curriculum vitae

Education

Doctorate of Philosophy University of Michigan, Ann Arbor, MI. 2018-Current. Epidemiologic science.

Masters of Public Health University of Michigan, Ann Arbor, MI. 2016-2018. Epidemiology; GPA – 4.00

Bachelors of Science University of Michigan, Ann Arbor, MI. 2012-2016. Major: Evolutionary Anthropology; Minor: Applied Statistics; GPA – 3.99

Teaching

Guest Lecturer Epidemiology 582: Molecular epidemiology; University of Michigan School of Public Health, Ann Arbor, MI, 2021 Created and presented a guest module on high-throughput techniques for measuring microbial systems to an audience of approximately 50 Masters-level epidemiology students.

Teaching Assistant Epidemiology 708: Machine Learning for Epidemiological Analysis in the Era of Big Data; University of Michigan School of Public Health, Summer Session in Epidemiology, Ann Arbor, MI. 2020 & 2021. Taught R programming for causal inference and machine learning to a group of approximately 20 students through live and interactive programming sessions. Provided instructional support during didactic lectures.

Guest Lecturer Epidemiology 512: Biological Basis of Human Disease; University of Michigan School of Public Health, Ann Arbor, MI, 2020 Created and presented a guest module on the role of microbes in gut physiology and pathophysiology to an audience of 50 Masters-level epidemiology students.

Departmental Tutor Epidemiology 824: Advanced Methods in Epidemiology; University of Michigan School of Public Health, Department of Epidemiology, Ann Arbor, MI. 2020-2021 Provided one-on-one tutoring on topics in causal inference, epidemiological theory and biostatistics to doctoral and masters students in the department of Epidemiology.

Tutor Programming in R for Epidemiologists; Summer Session in Epidemiology, University of Michigan School of Public Health, Ann Arbor, MI. 2019 Designed and taught a tailored one-week course on R coding for epidemiology to an interested student.

Instructional Aide Nursing 352: Reproductive Health; University of Michigan School of Nursing, Ann Arbor, MI. 2016-2017. Assisted with planning, running and grading of an undergraduate nursing course on Women's Health. Created materials and guest lectured for approximately 80 students.

Peer Advisor; Undergraduate Research Opportunity Program, University of Michigan, Ann Arbor, MI. 2014-2016 Taught a biweekly seminar on research methods, ethics and best practices. Mentored approximately 30 undergraduate research assistants per year in forming working relationships with faculty members across disciplines.

Teaching Assistant Residential College Core 100: First Year Seminar; University of Michigan, Ann Arbor, MI. 2013-2014. Provided classroom assistance in a freshman writing course of approximately 25 students. Met individually with students to workshop writing and critical literary analysis.

Funding

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. September 2020 - May 2023

2018 Rackham Graduate School International Travel Grant

2018 T32 HG00040 Genome Science Training Program, “National Genome Research Institute of the National Institutes for Health” September 2018 - August 2020

2016 Dean’s Scholarship: 100% tuition for two years of graduate study, September 2016 - May 2018

2012 Sydney J and Irene Shipman Scholarship Awardee: 100% tuition, room and board for four years of undergraduate study September 2012 - May 2016

Awards

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

2019 Science Communication Fellow, University of Michigan Natural History Museum

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

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

2015 Phi Beta Kappa

Publications

Blostein, F., Foote, S., Salzman, E., McNeil, D. W., Marazita, M. L., Martin, E. T., & Foxman, B. (2021). Associations between salivary bacteriome diversity and salivary human herpesvirus detection in early childhood: A prospective cohort study. *J Pediatric Infect Dis Soc.* <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. *Curr Epidemiol Rep*, 8, 143–150. <https://doi.org/10.1007/s40471-021-00263-8>

Blostein, F. A., Jansen, E. C., Jones, A. D., Marshall, T. A., & Foxman, B. (2020). Dietary patterns associated with dental caries in adults in the united states. *Community Dent Oral Epidemiol*, 48(2), 119–129. <https://doi.org/10.1111/cdoe.12509>

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

Collingwood, A., **Blostein, F.**, Seekatz, A. M., Wobus, C. E., Woods, R. J., Foxman, B., & Bachman, M. A. (2020). Epidemiological and Microbiome Associations Between *Klebsiella pneumoniae* and Vancomycin-Resistant *Enterococcus* Colonization in Intensive Care Unit Patients. *Open Forum Infectious Diseases*, 7(1). <https://doi.org/10.1093/ofid/ofaa012>

Manohar, J., Hatt, S., DeMarzo, B. B., **Blostein, F.**, Cronenwett, A. E. W., Wu, J., Lee, K. H., & Foxman, B. (2020). Profiles of the bacterial community in short-term indwelling urinary catheters by duration of catheterization and subsequent urinary tract infection. *Am J Infect Control*, 48(2), 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, C. F., Neiswanger, K., McNeil, D. W., Marazita, M. L., & 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(1), 1746494. <https://doi.org/10.1080/20002297.2020.1746494>

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

Blostein, F., Assari, S., & Caldwell, C. H. (2017). Gender and ethnic differences in the association between body image dissatisfaction and binge eating disorder among blacks. *J Racial Ethn Health Disparities*, 4(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. *Ann Epidemiol*, 27(9), 575–582.e3. <https://doi.org/10.1016/j.annepidem.2017.08.010>

Presentations

Oral presentations

September 2020 Epidemiology: A career for the mathematically minded. University of Michigan Dearborn Undergraduate Mathematics Club. Authors: Blostein, F.

July 2019 A tale of two clusterings: Comparison of clustering techniques in longitudinally collected salivary samples. University of Michigan Microbiome Seminar. Authors: Blostein, F., Bhaumik, D., Davis, E., Salzman, E., Marazita, M.L., & Foxman, B.

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. Authors: Townsend, T., Blostein, F., Doan, T. Madson-Olson, S., Galecki, P., & Hutton, D.

April 2016 Creating research opportunities with community-based organizations in Detroit, MI. 30th Annual Meeting for Undergraduate Research. Authors: Steiner, J. & Blostein, F.

Posters

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. Authors: Blostein, F.; Salzman, E.; McNeil, D.; Marazita, M.; Foxman, B.

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. Authors: Blostein, F.; Salzman, E.; McNeil, D.; Marazita, M.; Foxman, B.

November 2018 Herpes virus acquisition in infancy: association with the salivary microbiome? The International Conference on Molecular Epidemiology and Evolutionary Genetics of Infectious Disease. Authors: Blostein, F., Foote, S., Salzman, E., Martin, E., Marazita, M.L., & Foxman, B.

July 2018 Dietary patterns predict dental decay in the U.S.: Results from a nationally representative survey. International Association of Dental Research 2018. Authors: Blostein, F., Jansen, E., Jones, A., Marazita, M.L., & Foxman, B.

July 2018 Candida albicans and caries in post-partum Appalachian women. Poster. International Association of Dental Research 2018. Authors: Ramadugu, K., Jiang, W., Blostein, F., Salzman, E., Davis, E., Rickard, A., Neiswanger, K, McNeil, D., Marazita, M.L., & Foxman, B.

March 2015 Beyond a white woman's disease: Gender and ethnic differences in binge eating disorder among blacks. 14th Annual Michigan Epidemiology Conference. Authors: Blostein, F., Assari, S., & Caldwell, C.

Skills

Computer R, Python, SAS, LATEX, Linux, mothur, QIIME, Microsoft Office

Language Spanish – Proficient

Service & Science Communication

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...

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

Scientific Reports

American Journal of Epidemiology

Professional Memberships

International Association for Dental Research

International Society of Microbial Ecology

Data Visualization Society

✉ blostein@umich.edu ☎ (248) 881-0612 📺 [blostein](#) 🐦 [freidablostein](#) 🌐 [freidablostein.com](#)

Updated 2021-09-23