Paige Bianca Miller

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Education

B.A. Biology and Mathematics, *summa cum laude*. Gustavus Adolphus College (Saint Peter, Minnesota). *2011-2015*.

Ph.D. Ecology (Infectious Disease Ecology Across Scales Program). University of Georgia (Athens, Georgia). *2015*-current.

Research Experience

Drake Lab Graduate Research Assistant, the University of Georgia, *current*. Epidemic forecasting, models of disease elimination, historical patterns of smallpox elimination, statistical approaches to network analysis.

Whalen Lab Graduate Research Assistant, the University of Georgia, *current*. Social contact patterns of respiratory transmitted disease, public health, relational database management, Tuberculosis epidemiology in Kampala, Uganda, HIV/AIDS epidemiology.

Visiting Scientist, Division of Global Migration and Quarantine, Centers for Disease Control and Prevention, *2017*. Data management and analysis of US travel patterns and Tuberculosis epidemiology. Assisted with time series analysis and anomaly detection algorithms.

Public Health Intern, Division of HIV/AIDS Prevention, Centers for Disease Control and Prevention, *2015*. Investigated how a brief message regarding HIV testing and unknown infections impacts safe sex behavior among men who have sex with men (MSM) in the United States.

Drake Lab Undergraduate Research Assistant, the University of Georgia, *2014*. Developed early warning signals for forecasting disease emergence and eradication thresholds for measles.

Park Lab Undergraduate Research Assistant, the University of Georgia, *2013*. Developed models for the transmission and drug resistance emergence of heartworm in the Southern United States.

Bloch-Qazi Lab Undergraduate Research Assistant, Gustavus Adolphus College, *2012-15*. Studied impacts of aging on reproduction in *Drosophila melanogaster*.

Technical skills

Computer programming languages: R (data cleaning, data analysis, mathematical modeling, data visualization), Python (mathematical modeling)

Statistical software: SPSS (analysis), SAS (analysis), SQL (data management)

Other: Tableau (interactive data dashboards), R Shiny

Presentations and Publications

Journal Articles

Miller PB, Obrik-Uloho OT, Phan MH, Medrano CL, Renier JS, Thayer JL, Wiessner G, and Bloch Qazi MC. 2014. The Song of the Old Mother: Reproductive Senescence in Female Drosophila. *FLY*.

Mansergh G, PB Miller, JH Herbst, MJ Mimiaga, J Holman. Effects of Brief Messaging about Undiagnosed Infections Detected through HIV Testing among Black and Latino Men who have Sex with Men in the United States. 2015. *Sexually Transmitted Diseases*.

Bloch Qazi M, Miller PB, Poeschel P, Phan MH, Thayer JL, Medrano CL. Transgenerational effects of maternal and grandmaternal age on offspring viability and performance in Drosophila melanogaster. 2017. *Journal of Insect Physiology*.

Miller P, O'Dea EB, Rohani P, Drake JM. Forecasting infectious disease emergence subject to seasonal forcing. 2017. *BMC Theoretical Biology and Medical Modeling*

Presentations

Miller, P. and M. Bloch-Qazi. 2012. Female age affects reproductive behavior and physiology in Drosophila melanogaster. Midstates Consortium for Math and Science Undergraduate Research Symposium, Chicago, IL.

Harvard School of Public Health Undergraduate Conference on AmericaâĂŹs Next Top Infectious Disease Model: HIV and Influenza. 2013. Chicago, IL.

Miller, P. and A.W. Park. 2013. The Perfect Storm: Factors that lead to increased transmission and drug resistance emergence of heartworm in the United States. Student Research Symposium, Gustavus Adolphus College.

Developmental Biology Symposium. 2013, 2012. Minneapolis, MN.

Miller, P. and A.W. Park. 2013. The Perfect Storm: Factors that lead to increased transmission and drug resistance emergence of heartworm in the United States. NIMBIOS Undergraduate Research Conference at the interface of Math and Biology, Knoxville, TN.

Miller, P. and A.W. Park. 2014. The Perfect Storm: Factors that lead to increased transmission and drug resistance emergence of heartworm in the United States. Celebration of Creative Inquiry, Gustavus Adolphus College.

Miller, P. and A.W. Park. 2014. The Perfect Storm: Factors that lead to increased transmission and drug resistance emergence of heartworm in the United States. Midwest Mathematical Biology Conference, La Crosse, WI.

Miller, P. and J.M. Drake. 2015. Using the power ratio as an early warning statistic for predicting emerging infectious disease outbreaks. National Science Foundation, Emerging Researchers National Conference, Washington D.C.

Miller, P. and G. Mansergh. 2015. Effects of Brief Messaging about Undiagnosed Infections Detected through HIV Testing among Black and Latino Men who have Sex with Men in the United States. Celebration of Creative Inquiry, Gustavus Adolphus College.

Miller P. 2016. Forecasting infectious diseases with early warning signals. MIDAS Symposium, Reston, VA.

Miller P. 2017. Spatial pattern formation of an infectious disease on the verge of elimination. Odum School of Ecology Graduate Student Research Symposium, Athens, GA.

Grants & Awards

Infectious Disease Ecology Across Scales Grant to attend Epidemics Conference in Barcelona (2017) ($1400)

National Science Foundation Graduate Research Fellowship ($102,000), 2016.

National Science Foundation, Graduate Research Fellowship (Honorable mention), 2015.

Gustavus Adolphus College Mansergh Award for Undergraduates in Public Health, 2015.

Gustavus Adolphus College Paul Rucker Diversity Scholarship, 2011.

Gustavus Adolphus College Charles Hamrum Award for Biology, 2014.

Gustavus Adolphus College Verna Leona Anderson Scholarship for Women in Leadership, 2014.

Gustavus Adolphus College Marguerite Pooley Hauber Scholarship for Women in Mathematics, 2012.

Service

HIV testing volunteer, LiveForward (formerly AIDS Athens), Athens GA, 2015-current.

Undergraduate student mentor, Women in Science Program, University of Georgia, 2015-current.

Professional Organizations

Sigma Xi

American Statistical Association

Last updated: February 21, 2018