

CURRICULUM VITAE

Name: Jane Lopilato

Address: Department of Biology
Simmons University
300 The Fenway
Boston, MA 02115

Professional Preparation:

Emmanuel College, Boston, Biology, B.A.,
Harvard University, Cell and Developmental Biology, Ph.D.

Appointments:

Chair, Biology Department, Simmons College
Visiting Professor, Department of Biology, Northeastern University
Visiting Professor, Department of Infectious Diseases, Children's Hospital Boston
Visiting Professor, Department of Molecular Biology, Massachusetts General Hospital
Chair, Department of Biology, Simmons College
Associate Professor, Department of Biology, Simmons College
Assistant Professor, Department of Biology, Simmons College

Research Interests:

Global Regulators of Gene Expression/Metabolic Pathways/Antibiotic Resistance

Research Experience:

Damon Runyon-Walter Winchell Cancer Fund Fellow
Dr. Andrew Wright, Tufts University School of Medicine

Graduate Student, Cell and Developmental Biology
Dr. Jonathan R. Beckwith, Harvard Medical School

Grants and Awards:

Member of the HHMI IE3 Program at Simmons University

Co-Principal Investigator, NASA_MUREP WCU

Co-Principal Investigator, McGrath Global Research Grant

Principal Investigator, Sherman Fairchild Foundation
Summer Student Research Grant, Simmons University

Co-Faculty Mentor, Summer Undergraduate Research Program at Simmons (SURPASs)
Taylor Adams and Dr. Anna Aguilera. "Using Environmental DNA to identify Invasive Aquatic Plant Species in Aqueous Environments.

Faculty Mentor, Summer Undergraduate Research Program at Simmons (SURPASs)
with Valentina Laclare McEneaney "Examining Cellular Networks by Quantifying Targets of Activator BglJ and Silencer NanA".

Co-Investigator, W. M. Keck Foundation Grant, Departments of Biology and Chemistry,
Simmons College.

Co-Investigator, Merck/AAAS Undergraduate Science
Research Program Grant, Departments of Biology and Chemistry,
Simmons College.

Award for Teaching Excellence, Simmons College

Speaker at FASEB *Prokaryotic Transcription Initiation* Meeting

National Science Foundation - Career Advancement Award
“Protein Folding in Yeast / Gene Silencing in Bacteria”.

National Science Foundation-Research in Undergraduate
Institutions Grant, "A Mutational Analysis of *bgl* Expression
in *E. coli* K-12".

Simmons Fund for Research

Damon Runyon-Walter Winchell Cancer Fund Fellow

Professional Activities and Societies:

Outside Reviewer for Promotion – Suffolk University

Thesis Examiner – Chemistry Department, Simmons University
Piper Alyea-Herman, May 7, 2024

Dissertation Committee Member and Examiner – Biology Department, Northeastern University
Samantha Nicolau, Ph.D., November 3, 2021

Thesis Examiner – Chemistry Department, Simmons University
Gabrielle Esteban, May 19, 2021

American Association for the Advancement of Science
American Society for Microbiology
Review articles for *Archives of Microbiology*, *J. Bacteriology*, *J. Molecular Biology*, and *Microbiology*

Selected Workshops, Presentations, and Publications: * - Simmons University Undergraduates

*Abigail Eathorne and Jane Lopilato, 2024. The effect of *MraZ* Overexpression on Ciprofloxacin
Resistance in *Escherichia coli*. Simmons STEM Research Colloquium 2024, April 24, 2024

*Zoe Whitten and Jane Lopilato, 2023. Does *CytR* have any Influence on Ciprofloxacin in
E. coli? Simmons STEM Research Symposium, April 26, 2023.

*Amanda Burgess, Emily O’Neill, Anna Aguilera, and Jane Lopilato, 2023. Bees in Boston and
Beyond: Using Environmental DNA Techniques to Investigate Pollinator Relationships
in Urban Gardens. Simmons STEM Research Symposium, April 26, 2023

- *Annika Kozlowski and Jane Lopilato, 2023. Is TyrR and Aromatic Amino Acid Synthesis Important for Ciprofloxacin Resistance? 78th Eastern New England Biological Conference, April 22, 2023, Simmons University, Boston MA.
- *Somya Verma and Jane Lopilato, 2022. Cloning MetJ into pBAD24 to Analyze Killing by Ciprofloxacin. Biology Symposium, April 22, 2022.
- *Claire Munroe, Anna Aguilera, and Jane Lopilato, 2022. Using Environmental DNA Techniques to Investigate the Complex Relationship between Pollinators. Biology Symposium, April 22, 2022.
- *Nell Spencer and Jane Lopilato, 2021. Understanding Regulation of the Cryptic *bgl* Operon: Are Silencer Regions Activated by the RcsB-BglJ Complex? Biology Department Senior Presentations, December 14, 2021.
- *Hailee Perkins and Jane Lopilato, 2021. Cloning the *gcvB* gene of *E. coli*. Biology Department Senior Presentations, December 14, 2021.
- *Taylor Adams, Anna Aguilera, and Jane Lopilato, 2021. Using Environmental DNA to identify Invasive Aquatic Plant and Amphibian Species in Aqueous Environments. Biology Department Senior Online Presentations, May 12, 2021.
- *Abigail Anderson and Jane Lopilato, 2021. Identifying Regulators in Ciprofloxacin Antibiotic Resistance. Biology Department Senior Online Presentations, May 12, 2021.
- *Jessica Cobb, Anna Aguilera, and Jane Lopilato, 2021. Do eDNA techniques effectively prove the presence of aquatic invasive species? Biology Department Senior Online Presentations, May 12, 2021.
- *Sarah Dogar and Jane Lopilato, 2021. The effect of *agaR* on antibiotic resistance and the formation of persister cells in *E. coli*. Biology Department Senior Online Presentations, May 12, 2021.
- *Nell Spencer and Jane Lopilato, 2021. Does the RcsB-BglJ complex Regulate Chromosomal Silencer Regions that Repress the BglJ-Activated *bgl* Operon? Biology Department Senior Online Presentations, May 12, 2021.
- *Samantha Rivera and Jane Lopilato, 2020. Characterizing *yfeD* in Persister Cells of *E. coli*. Biology Department Senior Online Presentations
- *Kaitlyn Smith and Jane Lopilato, 2020. Antibiotic Resistance in *E. coli*. Biology Department Senior Online Presentations.
- *Andrea Borges and Jane Lopilato, 2019. Persister Cells Resistance to Ciprofloxacin. Senior Capstone Presentation. December 3, 2019.
- *Shelaslie Amador and Jane Lopilato. 2018. Does BglJ affect *cirA* expression and Iron Utilization? Biology Poster Showcase, April 24, 2018.
- *Lais Evora and Jane Lopilato. 2017. Characterization of Natural Isolates of Phage. Simmons Undergraduate Symposium, April 25, 2017.

- *Ngozi Nwaoha and Jane Lopilato. 2017. Can a *lacZ* fusion of *cirA* detect any effect of BglJ, a Transcriptional Activator? Eastern New England Biological Conference, April 29, 2017, at Suffolk University, Boston, MA.
- J. Lopilato, A. Zia* K. Vickey*, and A. Sayakbaeva*. 2016 Does BglJ Affect *cirA* Expression and Iron Utilization? Poster Presentation at the 22nd Annual Boston Bacterial Meeting 2016. June 14-15, 2016. MIT, Cambridge, MA.
- Valentina Laclare McEneaney* and Jane Lopilato 2015. “Silent Circuit Affects Metabolism in *E. coli* K12” American Society of Biochemistry and Molecular Biology Annual Meeting, Boston 2015. March 28- April 1, 2015
- Leung *et al.* 2015 including J. Hauke* and J.Lopilato. 2015. *Drosophila* muller elements maintain a distinct set of genomic properties over 40 million years of evolution. *G3 Journal (Genes, Genomes, and Genetics)* 5(5):719-740.
- Bradley S. Pickering, Jane E. Lopilato, Daniel R. Smith, and Paula I. Watnick. 2014. The transcription factor Mlc promotes *Vibrio cholerae* biofilm formation through repression of PTS components. *Journal of Bacteriology* 196(13):2423-2430.
- Morgan Feeney, Kevin Murphy, and Jane Lopilato. 2014. Designing PCR Primers Painlessly. *Journal of Microbiology and Biology Education*. 15(1):28-29.
- Shaffer CD, Alvarez CJ, Bednarski AE, Dunbar D, Goodman AL, Reinke C, Rosenwald AG, Wolyniak MJ, Bailey C, Barnard D, Bazinet C, Beach DL, Bedard JE, Bhalla S, Braverman J, Burg M, Chandrasekaran V, Chung HM, Clase K, Dejong RJ, Diangelo JR, Du C, Eckdahl TT, Eisler H, Emerson JA, Frary A, Frohlich D, Gosser Y, Govind S, Haberman A, Hark AT, Hauser C, Hoogewerf A, Hoopes LL, Howell CE, Johnson D, Jones CJ, Kadlec L, Kaehler M, Silver Key SC, Kleinschmit A, Kokan NP, Kopp O, Kuleck G, Leatherman J, **Lopilato J**, Mackinnon C, Martinez-Cruzado JC, McNeil G, Mel S, Mistry H, Nagengast A, Overvoorde P, Paetkau DW, Parrish S, Peterson CN, Preuss M, Reed LK, Revie D, Robic S, Roecklein-Canfield J, Rubin MR, Saville K, Schroeder S, Sharif K, Shaw M, Skuse G, Smith CD, Smith MA, Smith ST, Spana E, Spratt M, Sreenivasan A, Stamm J, Szauter P, Thompson JS, Wawersik M, Youngblom J, Zhou L, Mardis ER, Buhler J, Leung W, Lopatto D, Elgin SC. 2014. A course-based research experience: how benefits change with increased investment in instructional time. *CBE Life Sciences Education*. Spring; 13(1):111-30.

Selected Workshops, Presentations, and Publications prior to 2014 available upon request.