

Gregory Poterewicz
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EDUCATION

- 2023 – Present University of Colorado Anschutz Medical Campus, Aurora, CO
Ph.D. Molecular Biology Program
- 2012 – 2016 Stony Brook University, Stony Brook, NY
Bachelor of Science (B.S.) - Biology, Developmental Genetics Specialization
Scholars Program – Top 8% of incoming freshman to Stony Brook University

WORK EXPERIENCE

- 2021 – 2023 **Research Associate II, In Vitro Pharmacology** – Kallyope
Provide high quality data using murine and human enteroids to drive drug discovery programs forward, contribute translational data to enable clinical trials, contribute to IND reports as needed, compile data reports across programs, provide clinical data by measuring biomarkers in a GxP environment
- 2020 – 2021 **Research Associate I, In Vitro Pharmacology** – Kallyope
Grow and maintain murine organoid cell lines, carry out assays using murine and human organoids to characterize compounds in development, measure biomarkers and compile data reports across programs
- 2018 – 2020 **Laboratory Coordinator** – Kallyope
Managed day to day lab operations, assisted with two lab buildouts, managed organization of lab and freezer spaces, procured and organized all general lab supplies and equipment, and grew and maintained murine organoid cell lines
- 2016 – 2018 **Assistant Research Technician** – Dr. Liam Holt, New York University
Langone Medical Center

“Recruitment and controlled release of antiviral RNA (defective interfering particles) via GEMs and Phase Separated Liquid Droplets.” – DARPA Intercept Program.

“SCWISh network is essential for survival under mechanical pressure.”
“mTORC1 Controls Phase Separation and the Biophysical Properties of the Cytoplasm by Tuning Crowding.”
- 2016 **Summer Research Aid** – Dr. Gábor Balázsi, Stony Brook University
“Synthetic Tuning of Mutation Rates in *Saccharomyces cerevisiae*.”
- 2015 – 2016 **Research Aid** – Dr. Joshua Rest, Stony Brook University
General lab aid, assisted in Illumina library preparation and basic biological research of marine heterokonts.

UNDERGRADUATE AND HIGH SCHOOL RESEARCH EXPERIENCE

- 2013 – 2016 ***Undergraduate Researcher*** – Dr. Liliana Dávalos and Dr. Marianne Moore, Stony Brook University
“Using –omics to investigate white-nose syndrome: an emerging fungal infection devastating hibernating North American bats.”
- 2015 – 2016 ***Undergraduate Researcher*** – Dr. Gábor Balázs, Stony Brook University
“Synthetic Tuning of Mutation Rates in *Saccharomyces cerevisiae*.”
- 2013 – 2014 ***Undergraduate Researcher*** – iGEM at Stony Brook University
“Engineering *Escherichia coli* for the expression of melittin in response to the detection of *Pseudomonas aeruginosa*.”
- 2013 ***Undergraduate Researcher*** – Dr. Vitaly Citovsky, Stony Brook University
“Using agrobacterium to genetically engineer plant cells.”
- 2012 ***Undergraduate Researcher*** – Dr. Dianna Padilla, Stony Brook University
“Studying phenotypic plasticity in correlation with food given to marine organisms.”
- 2012 ***High School Researcher*** – Genspace
First experience and exposure to synthetic biology. Ran PCR reactions, extracted DNA and constructs, transformed bacteria, studied basic techniques used in synthetic biology (Genspace, Brooklyn, NY).

SKILL SET

Growing and maintaining murine and human organoids and mammalian cells in culture, 2D transwells cell culture, 3D cell culture, qPCR, ELISAs, transfection and transduction of cell lines, virus production, cloning and plasmid construction, PCR, in vitro studies with yeast and mammalian cells, yeast strain construction, live cell imaging using both a TIRF and confocal microscopes, flow cytometry, FACS, CRISPR, lab operations for a large lab

PUBLICATIONS

Francisco X Castellanos, Diana Moreno-Santillán, Graham M Hughes, Nicole S Paulat, Nicolette Sipperly, Alexis M Brown, Katherine R Martin, **Gregory M Poterewicz**, Marisa C W Lim, Amy L Russell, Marianne S Moore, Matthew G Johnson, Angélique P Corthals, David A Ray, Liliana M Dávalos “The evolution of antimicrobial peptides in Chiroptera.” *Frontiers in Immunology* 2023

Morgan Delarue, Gregory Brittingham, Stefan Pfeffer, Ivan V. Surovtsev, Sudarshan Pinglay, Kristopher J. Kennedy, Miroslava Schaffer, Juan I Rodríguez Gutiérrez, Deli Sang, **Gregory Poterewicz**, Jungrae Chung, Jürgen M Plitzko, Jay T. Groves, Christine Jacobs-Wagner, Benjamin D Engel, Liam Holt “mTORC1 Controls Phase Separation and the Biophysical Properties of the Cytoplasm by Tuning Crowding.” *Cell* 2018

Morgan Delarue, **Gregory Poterewicz**, Ori Hoxha, Jessica Choi, Wonjung Yoo, Jona Kayser, Liam Holt, and Oskar Hallatschek. “SCWISH network is essential for survival under mechanical pressure.” *PNAS* 2017

RESEARCH GRANTS AWARDED

2014 Office of the Vice President for Research, Stony Brook University for iGEM at Stony Brook University. “Engineering *Escherichia coli* to express melittin in response to the detection of *Pseudomonas aeruginosa*.” To Gregory Poterewicz, Andrew Xu, Janki Patel, Helen Liu, Karen Wong, Tenging Lama, Nicolai Tayco, Maryam Ige, Mohamed Gouda, Millicent Mulieri, Gurkamal Kaur – \$8,600

PROFESSIONAL PRESENTATIONS

2016 Stony Brook University Annual URECA Symposium, **G.M. Poterewicz**, Moore, M. S. and L. M. Dávalos. “Genomic Inventories of Bat Antimicrobial Peptides: Implications for Resistance to White-Nose Syndrome.” (Poster)

2015 Annual NIH IRACDA Conference Moore, M. S., **G. M. Poterewicz** and L. M. Dávalos. “Host defense peptide diversity in bats: implications for resistance to white-nose syndrome.” (Poster)

2015 Stony Brook University Annual URECA Symposium, “iGEM at Stony Brook University – Engineering *E. coli* to Detect and Kill Pathogenic Bacteria” (Poster)

2014 iGEM Giant Jamboree, Boston MA. “Engineering *Escherichia coli* to express melittin in response to the detection of *Pseudomonas aeruginosa*” (Poster and oral)

2014 Stony Brook University URECA Explorations in STEM, “Engineering *Escherichia coli* to express melittin in response to the detection of *Pseudomonas aeruginosa*” (Poster)

AWARDS AT STONY BROOK UNIVERSITY

2016 The Stony Brook Chapter Sigma Xi Undergraduate Research of Great Merit

2015 Alumni Association Past Presidents Scholarship

2015 Undergraduate Research and Creative Activities Award

2015 Larry Roher Entrepreneurial Achievement Award

2014 URECA Explorations in STEM

2014 First Alumni Award

2012 Presidential Scholarship

REFERENCES

Available upon request