

Gabrielle Kosoy

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Education:

PhD program in Biophysics, Structural and Computational Biology program. University of Rochester, Rochester, NY. 2018-Present 2018-Present

Bachelors of Science in Biophysics, Minors in Mathematics and Chemistry, State University of New York, Geneseo, New York. 2011-2015 2011-2015

Scientific Experience:

Science writer, *SepMag*, Barcelona, Spain. 2020- Present

- I have been writing blog posts about a large variety of scientific techniques. Some example Topics include, protein extraction, nucleic acid extraction, cell lysis and sonication methods, RNAi protocols, protein purification, and many more.

Graduate Student, University of Rochester School of Medicine and Dentistry, Rochester, NY. 2018-Present

- In rotations conducted RNA purification, small molecule Förster resonance energy transfer microscopy, traction force microscopy, mammalian cell culture, confocal fluorescence microscopy.
- In permanent laboratory learned to develop microarrays using arrayed imaging reflectometry to study biophysics of antigen-antibodies interaction affinities for influenza and SARS-CoV-2.

Laboratory Technician, Instituto Gulbenkian de Ciência, Oeiras, Portugal. 2016-2016

- Project: Mechanisms of A-to-I editing protein ADAR1.
- Skills: Troubleshooting protein purification protocols, electrophoretic mobility shift assays, crystallography-crystal screens.

Laboratory Technician, Wadsworth Center, New York State Department of Health, Albany, NY. 2015-2016

- Project: Fidelity of *S.Aureus* replicative polymerases.
- Skills: Bacterial cell culture, polymerase chain reaction, DNA purification, Illumina next generation sequencing sample preparation protocol and alignment of sequence data.

Undergraduate Summer Research, Wadsworth Center, New York State Department of Health, Albany, NY. 2013

- Project: Characterizing kinetics of *dnaE*, a prokaryotic DNA polymerase
- Skills: enzyme kinetics using Rapid Quench Flow instrument, Prism-Graphpad data analysis

Teaching and Mentoring Experience:

Teaching Assistant, department of Biophysics and Biochemistry, Rochester, NY. 2019

- Course: "Bioinformatics for life scientists," in python programming language

Departmental Tutor, department of Biophysics and Biochemistry, Rochester, NY. 2019-2020

- Course: Advanced Biochemistry

Private Tutor, Rochester, NY. 2018-Present

- Help students develop skills and intuition for solving problems in school and on tests at the middle and high school level

Honors and Awards:

Department of Biophysics Best Student Seminar award, Rochester, NY. 2021

<ul style="list-style-type: none"> Winner of award for presentation entitle, "Whole virus versus surface protein, what is the antigenicity?" 	
T32 NIH Training Grant in Cellular, Biochemical and Molecular Sciences	2020-2021
<ul style="list-style-type: none"> Trainee 	
Biophysics Retreat Poster Presentation Award, Rochester, NY.	2019
<ul style="list-style-type: none"> Winner of Award for Poster Entitled "Using Arrayed Imaging Reflectometry to Illustrate the Human Immune Response to Influenza of the Past and Present" 	
Sharing Science in a Social World Competition, University of Rochester Medical Center, Rochester, NY.	2019
<ul style="list-style-type: none"> "Best Science Storytelling" 3rd place winner Video: "Questions and Answers," a documentary style video encapsulating the way it feels to do research in Rochester, NY, and the questions we ask as researchers 	
IoT Hackathon at the Tech Valley Center of Gravity, Troy, NY.	2016
<ul style="list-style-type: none"> "Best Smart City Solution" Prize winner Project: combining audio sensors and online data streaming to manage noise complaints in apartment buildings. 	
Student Ambassadorship Program, SUNY Geneseo, Geneseo, NY	2013
<ul style="list-style-type: none"> Ambassador of Intercultural Studies Grant winner Pursued a personal cultural study project that sought to understand and share how people associate home and their cultural roots with a place. Traveled to Ukraine during the summer of 2013 to conduct the project, and a presentation of the work was held at the Geneseo campus during the fall of 2013. 	

Posters and Presentations:

Department of Biophysics Student Seminar	2022
<ul style="list-style-type: none"> Talk entitled "A biophysical approach to studying anti-influenza antibody affinity with respect to antigen presentation and context." 	
Department of Biophysics Student Seminar	2021
<ul style="list-style-type: none"> Talk entitled "Whole virus versus surface protein, what is the antigenicity?" 	
Biophysics Retreat, Rochester, NY, October 10th, 2019	2019
<ul style="list-style-type: none"> Poster: Kosoy G, Zhang H, Kobie J, Martinez-Sobrido L, Miller B. <i>"Using Arrayed Imaging Reflectometry to illustrate the human immune response to influenza of the past and present."</i> 	
Exhibition at NOS Music Festival with Instituto Gulbenkian de Ciência, Algés, Portugal, July 7th, 2016	2016
<ul style="list-style-type: none"> Outreach with a team running a booth engaging festival goers in conversation about science and curiosity. 	
DNA Replication and Repair Symposium, Buffalo, NY, May 5-6th, 2016	2016
<ul style="list-style-type: none"> Poster: Kosoy G, Nelson R, Jaminal J, Singh N, Banavali N, Pata J. <i>"Examining Sequence Dependent Polymerase Errors by Next Generation Sequencing."</i> 	
Experimental Biology Conference, San Diego, California. April 25-28 th , 2014	2014
<ul style="list-style-type: none"> Poster: Kosoy G, Lahiri I, Pata J. <i>"Determining the Kinetics of DnaE, an enzyme for DNA replication in S.aureus."</i> 	

Publications:

Embong AK, Nguyen-Contant P, Wang J, Kanagaiah P, Chaves FA, Fitzgerald TF, Zhou Q, Kosoy G, Branche AR, Miller BL, Zand MS, Sangster MY, Topham DJ. Formation and Expansion of Memory B	2022
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Cells against Coronavirus in Acutely Infected COVID-19 Individuals. *Pathogens*. 2022; 11(2):186.
<https://doi.org/10.3390/pathogens11020186>

Community Engagement:

Graduate Student Ambassador, University of Rochester School of Medicine and Dentistry, Rochester, NY. 2019-Present

BMB admissions weekend student volunteer committee, University of Rochester School of Medicine and Dentistry, Rochester, NY. 2019-Present