Emily Radzio

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EDUCATION

Expected May 2027	**Cornell University, College of Engineering, Ithaca, NY**
	Candidate for Bachelor of Science in Engineering
	Major: Mechanical and Aerospace Engineering
	GPA: 2.50/4.0
2019 - 2023	**Xaverian High School, Brooklyn, NY**
	Awards: National Honors Society, Sociedad Honoraria Hisapánica, Dean's List, Geometry Award, Trigonometry Award
	GPA: 96.9/100

RESEARCH EXPERIENCE

June 2020 – Aug. 2022 **Davis Lab**, Weill Cornell Medicine, New York, NY, *Research Assistant*

Breast Cancer Organelle Cultivation Experimentation:
-Biosafety cabinet and lab workbench experimentation that explored various media solutions for optimal organelle growth
-Application of technical lab skills for setup, observation, and alteration of experiment
-Nanoscale imaging and documentation of 3D growth
-Presentation of key findings of optimal conditions for BC organelle growth
- Characterized the correlation between ethnicity and breast cancer survival rates of African American and European American women
- Analyzed levels of tumor-associated lymphocytes (TAL) in 10-year progression-free survival (PFS) and overall survival (OS) by racial groups
- Utilized Microsoft Excel to determine statistical significance in survival probability of patients by TAL group to predict cancer rates in minority communities
- Presented research findings using Microsoft PowerPoint and Keynote to clinical researchers and doctoral students at Weill Cornell Medicine

May 2024 – Aug. 2024 **Tuschl Lab**, Rockefeller University, New York, NY, *Research Assistant*

High-throughput MTase screening cytometry assays (cap 2'O-methyltransferase of SARS-CoV-2 (COVID))
in the Fisher Drug Discovery Center
- Utilized machinery such as microplate dispensers, centrifuges, and luminescence readers to look for non-structure protein inhibition of NSP16/10
- Searched for the production quantity of SAH (a byproduct of RNA Methyltransferase) from a high-throughput luminescent screening device (BioTek Synergy Neo2 hybrid multimode reader)
- Prepared solutions, media, and reagents for MTase assay detection protocol such as MTase buffer, MTase Glo Reagent, SAM RNA solution, and NSP16 solution

Assisted in the following drug discovery project:
- DNA miniprep, DNA transformation, and SDS-PAGE gels for clone expression plasmids of E. Coli

May 2025 - Present **ASTRA Lab**, Cornell University, Ithaca, NY, *Research Intern*

NASA-ESI AdVECT heat pipe testing in thermal vacuum chamber
- Thermal couple configuration and setup for heat pipe testing
- Vacuum chamber internal design and assembly of heat pipe testing stand
- AutoCAD of possible thermal shroud options and assembly to be used for testing
- Keeping maintanance of thermal vacuum chamber
- Updating the lab team of current progress and next steps to take

General lab assistance

LEADERSHIP AND EXTRACURRICULARS

Sept. 2019 – June 2020 **Speech and Debate Club**, Xaverian High School, Brooklyn, NY, *Member*
- Memorized and performed 5-minute-long oral interpretation pieces in National Speech & Debate Association competitions against students in New York City public and private high schools
- Attended the Yale University Invitational High School Tournament in 2019 with 50 high school students from Xaverian High School and observed oral, dramatic, humorous, and original oratory interpretation speeches from East Coast regional high schools

Sept. 2016 – June 2021 **Concert Band**, Xaverian High School, Brooklyn, NY, *Clarinetist*
- Played clarinet at an intermediate level with 50 high school students
- Practiced skills 5 hours per week in-person and remotely with band members
- Performed in 2 concerts per year in front of audiences of 300 people from the local community in Brooklyn

SKILLS, ACTIVITIES, & INTERESTS

Languages: Fluent in English and Polish, Conversational Proficiency in Spanish
Technical Skills: Microsoft Office Suite, Basic Python Coding, Basic MatLab Coding, Autodesk
Interests: Architectural Design Illustration, Studio Art, Photography, Video Editing, Cycling