
EDUCATION

Massachusetts Institute of Technology (MIT)

December 2022 | **GPA: 4.9/5.0**

Degree: Bachelor of Science in Biological Engineering, Minor in Computer Science

Relevant courses: Biomolecular Systems Analysis, Genetics, Biochemistry, Cell Biology, Organic Chemistry, Python Intermediate Programming

SKILLS

Laboratory	Bacterial/mammalian cell culture, mass spectrometry, HPLC, NGS sequencing analysis, gene cloning, gene assembly, sequencing, PCR, and protein purification
Computer	Python, R, MATLAB, and Bash shell scripting
Communication	Scientific writing (research proposals, experimental papers), presentations, figure design

EXPERIENCE

Alnylam Pharmaceuticals

Cambridge, MA

RNAi Discovery Department, Analytical Chemistry Co-op

January 2021 - Current

- Prepare and analyze siRNA for biology groups, lead discovery, and external collaborators
- Analyze siRNA through HPLC, mass spectrometry, osmolality, and other techniques
- Contribute to dozens of *in vitro* and *in vivo* preclinical drug development studies
- Founded and led co-op journal club and presented relevant papers

Novel Biotherapeutics

Cambridge, MA

Student

September 2020 – December 2020

- Designed and wrote 12-page, independent, original research grant proposal: “T cell Epitope Modification of AAV for Immune Escape”
- Reviewed and discussed 50+ scientific papers
- Presented 4 times on recent literature and own original proposal
- Provided written and verbal feedback on peers’ original proposals

AbbVie Pharmaceuticals

Worcester, MA

Biologics Discovery Department, Bioinformatics Intern

May - August 2020

- Worked with Protein Engineering and Expression group
- Optimized ribosome profiling (ribo-seq) analysis pipeline and added small open reading frame (sORF) detection by testing 12 software packages
- Conducted literature review of rapidly evolving technology in ribo-seq and sORFs
- Presented work to 30+ group members
- Contributed to drug development discovery pipeline for engineering stable cell lines and target discovery

Timothy Lu Lab, MIT Synthetic Biology Center

Cambridge, MA

Undergraduate Researcher

September 2019 - March 2020

- Designed and built genetic circuits for gum disease regeneration
 - Expanded on previous work by finding an unfinished project on campus and quickly familiarizing myself
 - Created cells that detect inflammation and emit appropriate levels of growth factors for cell proliferation
 - Performed mammalian cell culture and molecular cloning
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LEADERSHIP

Associate Advisor, Biological Engineering Department

August 2020 – Current

Team Captain, MIT Intercollegiate Sailing

August 2018 – Current

Operations Lead, MIT Spokes (teaching STEM along cross-country cycling route)

May 2019 – August 2019