Danielle Streever
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Cleveland, OH

EDUCATION

2023-2031 Case Western Reserve University School of Medicine
Doctor of Medicine 2031
Doctor of Philosophy 2029
- Biomedical Engineering

2022-2023 Cornell University
Master of Engineering
- Biomedical Engineering – Academic Track
- GPA 4.0

2018-2022 Cornell University
Bachelor of Science
- Major in Biomedical Engineering
- GPA 3.8 *Magna Cum Laude*

HONORS AND AWARDS

2023 Graduate Teaching Assistant Award
2022 Graduated *Magna cum laude* in Biomedical Engineering
2020-2022 Hunter R. Rawlings III Cornell Presidential Research Scholar
2019-2022 Dean's List
2019 Engineering Learning Initiatives Undergraduate Research Award

RESEARCH EXPERIENCE

2024-present Case Western Reserve University, Biomedical Engineering
PI: Andrei Maiseyeu
Project: Creating a Polymer Nanoparticle Library for Use in Barcoded High Throughput Sequencing
- Optimized Southern Blots for DNA glycosylation assays and nanoparticle analysis
- Created and tested new polymer nanoparticle formulations to encapsulate DNA barcodes
- Collected bone marrow derived macrophages from mouse long bones
- Tested nanoparticle uptake in bone marrow derived macrophages

2020-2023 Cornell University, Chemical and Biomolecular Engineering
PI: Rong Yang PhD
Project: "Rapid Synthesis of Polymer Nanodomes via Template- and Solvent-free Condensed Droplet Polymerization in a Chemical Vapor Deposition Chamber"
- Developed new method of synthesizing aspherical nanoparticles without solvent
- Created a technique to incorporate drug into the nanoparticle polymer matrix without solvent
- Second-author manuscript on the nanoparticle synthesis
- Currently writing a first-author manuscript on the drug encapsulation technique
- Received the Rawlings Presidential Research Scholar Award for this project
- Trained in the Nanoscale Facility clean room for electron beam lithography

Summer 2021	Children's Hospital of Philadelphia, Philadelphia, PA PI: Stephen Master MD, PhD Project: "Development and Optimization of Clinical Diagnostic Metabolic Assays" • Clinical chemistry intern in the Metabolic and Lab Medicine department • Method development and optimization using liquid chromatography/mass spectrometry and the Orbitrap ID-X • Dissolution protocol development for 90+ biologics and macromolecules
2019-2020	Cornell University, Chemical and Biomolecular Engineering PI: Rong Yang PhD Project: "Antibiotic-free Treatment of *Otitis media* using an Engineered Hydrogel" • Wrote the IACUC animal protocol for chinchilla use • Performed general animal care, infection procedures, surgeries, and dissections on chinchillas • Trained other personnel on surgeries and dissections • Cultured bacteria for animal infection • Received the Engineering Learning Initiatives Undergraduate Research award for this project

BIBLIOGRAPHY

Peer Reviewed Articles

Franklin, Trevor; **Streever, Danielle L**; and Yang, Rong. "Versatile and Rapid Synthesis of Polymer Nanodomes via Template- and Solvent-Free Condensed Droplet Polymerization" *Chem. Mater.* June 29, **2022**. *DOI:* 10.1021/acs.chemmater.2c00964

Lang, Jiayan; Ma, Xiaojing, Liu, Sophie S.; **Streever, Danielle L.**; Serota, Max D.; Franklin, Trevor; Loew, Ellis R.; and Yang, Rong. "On-Demand Synthesis of Antiseptics at the Site of Infection for Treatment of Otitis Media" *Nano Today.* November 10, **2022.** *DOI:* 10.1016/j.nantod.2022.101672

Patents

Franklin, Trevor; **Streever, Danielle**; and Yang, Rong. "Solvent-free incorporation of therapeutic molecules into polymer nanoparticles using condensed droplet polymerization." U.S. Provisional Patent 63/364,341. International Patent WO 2023/015183 A1. August 2, 2022.

Franklin, Trevor; **Streever, Danielle**; and Yang, Rong. "Polymer nanoparticles via condensed droplet polymerization" USPTO Utility Application filed Jan 29, 2024.

**In submission process: Meehan, Sean; Mokarram, Nassir; Hudson, Erin; Streever, Danielle; Gleiberman, Annette; Londhe, Ketaki. "Tumor access devices with integrated sensors." April, 2024.

CONFERENCES & PRESENTATIONS

Spring 2022	Poster presentation- Rawlings Presidential Research Senior Expo, Rapid Polymer Nanoparticle Synthesis via Solvent-free Condensation and Polymerization, Ithaca, NY
Spring 2021	Oral presentation- CURBx, Solvent-free Nanoparticle Synthesis Using Initiated Chemical Vapor Deposition, Ithaca, NY

WORK EXPERIENCE

2022-2023 — Lindseth Climbing Gym/Cornell Outdoor Education, Ithaca, NY
- Administered top rope and sport lead climbing tests
- Checked climbers into the gym
- Ran community outreach events with high schoolers

2021-2022 — Consultant for Exvade Bioscience, Inc., Ithaca, NY
- Worked with Exvade for our senior capstone design project to create a biomarker sensor attachment for their tumor monorail device, the 'Pied Piper'.

2019 — Student Disabilities Service Note Taker for Differential Equations, Ithaca, NY
- Took and distributed notes for Differential Equations to student disabilities services

COMMUNITY OUTREACH / VOLUNTEER WORK

Spring 2019-2023 — Guiding Eyes for the Blind, Community Dog Sitter, Ithaca, NY, and Cleveland, OH
- Help train and care for service dogs in training that will aid the visually impaired
- Attend weekly training classes with other volunteers to work with our dogs in a group setting
- Watch and train the dogs for hours to a few days at a time as other full-time volunteers need help
- Social and Health Chair on the Executive Board of Cornell University's Guiding Eyes for the Blind Chapter from January 2021-May 2022

Summer 2020 — COVID-19 Testing Point of Care, Atlanta, GA
- Helped administer free COVID-19 tests in a drive-through testing center in Atlanta

Summer 2017 — Senior Team Member for a Mission Trip to Amor Y Esperanza, Ecuador, Quito
- Spent a week in Quito, Ecuador
- Helped teach English and Math to 5th grade students every morning
- Aided in construction of a new school building every afternoon
- Fundraising tuition costs to sponsor students

TEACHING EXPERIENCE

2022-2023 — Graduate Teaching Assistant, Cornell University
- Biomedical Transport Phenomena
  - Course Director: Peter Doerschuk
  - Taught discussion section lectures
  - Led office hours and project meetings
  - Created homework sets and rubrics
  - Graded project reports
- Molecular Principles of Biomedical Engineering
  - Course Director: Nozomi Nishumura
  - Prepped and led laboratory sessions
  - Led office hours
  - Graded homework and laboratory reports

2020 Undergraduate Teaching Assistant, Cornell University

- Biomedical Transport Phenomena
    - Course Director: Peter Doerschuk
    - Led office hours and project meetings
    - Created homework sets and rubrics
    - Graded project reports

INSTITUTIONAL SERVICE

2023-2025 MSTP Retreat Chair, Cleveland, OH

- Help organize the MSTP annual 2024 and 2025 retreat
- Reach out to and arrange keynote speakers
- MC the retreat

2024-2025 CMDA Medical School Branch Leader

- Run CWRU's student branch of Christian Medical and Dental Associations, including organizing weekly meetings, social events, and events in partner with the regional NEOCMDA

2023-2024 MSTP M1 Social Chair, Cleveland, OH

- Organize social events for the first year class

Interests: violin, composition, dance, rock climbing