Colby Constantine

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Education

University of Rhode Island, Kingston, RI Bachelor of Science in **Chemical Engineering** Minors: **Pharmaceutical Manufacturing**

Experience

Merck & Co., Boston, MA, Discovery Pharmaceutical Sciences Intern

Jun. 2023 – Aug. 2023

Expected May 2025

GPA: 3.55/4.00

- Understand the physicochemical characteristics of peptides and their associated formulations for oral delivery.
- Development of small-scale in vitro screening systems to create novel peptide loaded nanoparticles.
- Quantify peptide concentration and bioavailability in biorelevant conditions using UPLC, DLS, MALDI, and CAMPA assays.
- Planning, driving, and executing experiments with minimal assistance related to the design, development, and characterization of the novel delivery systems.

University of Rhode Island, Kingston, RI, <u>Undergraduate Research Assistant, URI Soft Matter Lab</u>

May 2022 - Present

- Generate index-matched cyclohexane emulsions via sonication.
- Characterize tracer particle dynamics through biomimetic hydrogel materials.
- Investigate how biomaterials react under various processing conditions and in complex fluids.
- Determine the rheological properties of complex fluids and biomimetic materials.
- Deliver several oral presentations of my work to colleagues and other interested individuals.

University of Rhode Island, Kingston, RI, Senior Resident Assistant

Aug. 2022 - Present

- Facilitate growth and development of students during their time in college.
- Organize monthly social and educational events tailored to the buildings living learning community.
- Advise students in areas including personal life, education, and future goals.
- Help students maintain compliance with Housing and Residential Life policies.

CVS Health, Wakefield, RI, Shift Supervisor RX

Dec. 2020 - Present

- Oversee store operations while maintaining an active role as a pharmacy technician.
- Point person for escalated customer service inquiries, overnight deliveries, and upper management communications.
- Fill prescriptions, answer phone calls, and resolve complex insurance issues in a fast-paced environment while maintaining patient confidentiality and upholding state and federal laws and regulations.

Technical Skills

Specialized Coursework: Microbiology, Bionanotechnology, cGMP's in Pharmaceutical Manufacturing, Engineering Ethics, Chemical Kinetics & Reactor Design

Computer/Software: Empower, MATLAB, Microsoft Office

Laboratory: Aseptic Technique, UPLC/HPLC, DLS, Zeta Potential, Microscopy, Rheology

Certifications: PTCB Nationally Certified Pharmacy Technician

Membership & Honors

University of Rhode Island Undergraduate Research & Innovation Grant

RI-INBRE Summer Undergraduate Research Fellowship (SURF)

Member, URI American Institute of Chemical Engineers (AIChE)

Member, Theta Tau Professional Engineering Fraternity

Fall 2022, Fall 2023

Summer 2022

Fall 2021 – Present

Fall 2021 – Present

Publications

- D. Keane, <u>C. Constantine</u>, M. Mellor, R. Poling-Skutvik* (*Langmuir* 2023, 39, 22, 7852–7862) Bridging Heterogeneity Dictates the Microstructure and Yielding Response of Polymer-Linked Emulsions
- D. Keane, <u>C. Constantine</u>, M. Mellor, R. Poling-Skutvik* (*AIChE J.* 2023, e18307) Nanoparticle Transport in Biomimetic Polymer-Linked Emulsions