

EVAN T. LIECHTY

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EDUCATION

University of Colorado Boulder | PhD Chemical Engineering
Matriculated August 2018 | Boulder, Colorado
GAANN Fellowship | Spring 2019 - Summer 2019
Graduate Teaching Assistant for CHEN 4820: Biochemical Separations | Fall 2018
Purdue University | BS Chemical Engineering
May 2018 | West Lafayette, Indiana
Grade Point Average: 3.80/4.00
Purdue Presidential Scholarship

RESEARCH EXPERIENCE

University of Colorado Boulder | Graduate Research Assistant
Fall 2018 - Current | Boulder, Colorado
Engineering and Evolving Photoswitchable Enzymes
Advisor: Dr. Jerome Fox

- Research areas: optogenetics, protein engineering, cell signaling, directed evolution

Purdue University | Undergraduate Research Assistant
Fall 2014 - Spring 2018 | West Lafayette, Indiana
Investigating Methods for Monitoring Lyophilization Processes | Summer 2016 - Spring 2018
Summer Undergraduate Research Fellowship (SURF) | Summer 2016
Advisor: Dr. Alina Alexeenko

- Tested temperature sensors for use in lyophilization processes
- Learned about the research process, wrote a technical paper, developed presentation skills, and attended research and professional development seminars
- Utilized residual gas analysis to monitor lyophilization processes

Investigating Personalized Dosage Forms Using Film Formulations | Fall 2014 - Spring 2018
Discovery Park Undergraduate Research Internship Program (DURI) | Fall 2014
Advisor: Dr. Rodolfo Pinal

- Determined ideal film compositions by varying polymers and plasticizers, polymer and plasticizer amounts, and film preparation methods
- Used USP standard dissolution test methods and UV spectroscopy to determine drug release
- Investigated the use of suspensions for pharmaceutical applications
- Conducted dissolution experiments to generate data for building a dissolution model

University of Kentucky | Undergraduate Research Assistant
Summer 2017 | Lexington, Kentucky
Investigating Properties of Magnesium Stearate Affecting Dissolution Performance | Summer 2017
Summer Undergraduate Research Program (SURP) | Summer 2017
Advisor: Dr. Eric Munson

- Investigated magnesium stearate variability and how properties such as fatty acid content, crystalline form, and particle size affect active pharmaceutical ingredient dissolution performance
- Utilized characterization techniques including PXRD, GC-MS, TGA, DSC, and particle size analysis

PUBLICATIONS

1. **Liechty, E.T.,*** Strongrich, A.D.,* Moussa, E.M., Topp, E., Alexeenko, A.A. In-Situ Molecular Vapor Composition Measurements During Lyophilization. *Pharm Res* (2018) 35: 115. (*Denotes equal contribution).

POSTER PRESENTATIONS

1. **Liechty, E.T.,** Strongrich, A.D., Alexeenko, A.A. In-Situ Residual Gas Analysis During Lyophilization. *International Society of Lyophilization-Freeze Drying Midwest Conference, Chicago, IL, USA, 2017.*

WORK EXPERIENCE

PRO Unlimited on contract for Amgen | Process Development Contingent Worker

May 2018 - August 2018 | Thousand Oaks, California

- Investigated lyophilization technologies at the lab scale for the Drug Product Core and Next Generation Technologies Process Development group
- Conducted a literature search to determine how data being generated from the summer project differed from published findings
- Trained co-workers on lyophilization technologies and characterization techniques and explained lyophilization phenomena to ensure smooth project transition at the end of the summer

Vertellus | 3-Term Chemical Engineering Co-op

May 2015 - December 2016 | Indianapolis, Indiana

1st Term: Process Safety | Summer 2015

- Identified P&ID piping circuits, wrote a procedure for vacuum truck operation, organized capital projects, performed dike volume calculations

2nd Term: Process Improvement | Spring 2016

- Analyzed data and performed statistical analysis to improve production processes, performed pipe pressure drop calculations for pump sizing using AFT Fathom, modeled batch distillation using Aspen Plus

3rd Term: Project Engineering | Fall 2016

- Managed and organized site improvement projects, ensured projects stayed within approved budget, coordinated project work with site operations, modeled an existing piping circuit and potential changes in AFT Fathom