

Kerstin Peterson

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EDUCATION

Bachelor of Science in Biochemistry and Molecular Biology

Cumulative GPA 3.91/4.00

Truman State University | Kirksville, MO

May 2021

RELEVANT COURSEWORK

Chemical Principles I w Lab	Physical Chemistry Lab I	Molecular Pharmacology
Chemical Principles II w Lab	Biochem I: Structure &	Cancer Biology
Introduction to Quantitative	Function	College Physics I with Lab
Analysis w Lab	Introductory Biology I w Lab	College Physics II with Lab
Organic Chemistry I	Introductory Biology II w Lab	Analytic Geom & Calc I
Organic Chemistry II	Cell Biology w Lab	Analytic Geom & Calc II
Organic Chemistry Lab I	Genetics w Lab	Analytic Geom & Calc III
Organic Chemistry Lab II	General Microbiology w Lab	
Physical Chemistry I	Virology	

RESEARCH EXPERIENCE

Biochemistry Researcher | *Truman State University* Jan 2018 - Present

- Explored Disulfide Bond Forming Enzyme (DBF) Expression, Purification and Activity, PI Dr. Cassidy Dobson.
- Conducted recombinant protein expression, IMAC purification, and Lysozyme assays.
- Utilized FPLC, SDS-PAGE, Spectrophotometer, Centrifuge, Micropipette. Performed bacterial growth, dialysis, and protein solution concentration.
- Wrote Grant material; created background, methodology, and experimental design figures in BioRender; and read project specific scientific literature from a remote setting during the McNair Summer Research Internship.

Virology Researcher | *University of Nebraska-Lincoln* Jun 2019 - Aug 2019

- Analyzed 203 Ocular Surface Squamous Neoplasia patient samples for 16 different genotypes of Human Papillomavirus to determine if there was a connection between the virus and the cancer, PI Dr. Peter Angeletti.
- Extensive use of PCR and SDS-PAGE on DNA samples.
- Constructed a creative poster that displayed the results of the summer research concisely and pictorially.

LEADERSHIP EXPERIENCE

Teaching Assistant | *Truman State University*

Jan 2020-Mar 2020

Organic Superlab

- Assisted 20 organic superlab students with experiments 8 hours per week.
- Ensured proper personal protective equipment was present and safety requirements of the lab were met, offered encouragement when experiments were not going as planned, and answered student questions whenever possible.

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Women in Chemistry | Truman State University

Aug 2019 - Present

President (Aug 2019-Present)

- Revived the inactive organization, worked collaboratively with faculty to advertise and gain membership through departmental ties, and aided in making the organization more visible.
- Built a strong network of women who support one another in various aspects of their professional and personal lives.

Student Advisor | Truman State University

Aug 2018 - May 2019

- Facilitated a classroom of 16 students for the fall semester symposium pilot program.
- Responsible for 59 residents and their well-being.
- Guided first year students, resolved conflicts, built a lasting community among residents, and established valuable relationships with the staff.

First Gen United | Truman State University

Aug 2017 - Present

Founder (Chartered Oct 2018), President (Jan 2018 - May 2019), Member (Jun 2019 - Present)

- Established an organization focused on providing information on various resources and forming a network for first generation college students.
- Spearheaded this organization as a part of the Harry S. Truman Leadership Scholars Program.
- Represented at charter hearings, aided in formulating the organization's proposal and constitution, and motivated the foundational team.
- Directed biweekly executive board meetings, planned general body meetings, coordinated with liaison, and collaborated with the First Generation Advisory Committee.

American Chemical Society | Truman State University

Aug 2017 - Present

Green Chemistry Co-Chair (Jan-May 2018), Social Co-Chair (Aug-Dec 2018), Fundraising Co-Chair (Jan-May 2019), PR Co-Chair (Aug-Dec 2019), President-Elect (Jan 2020-March 2020)

- Planned meetings and organized various events to inform and connect members.
- Spread awareness on being more green in chemistry labs, raised funds for the organization, and advertised the organization.

CONFERENCES AND PRESENTATIONS

Peterson, K. (2020, Apr). Disulfide Bond Forming Enzyme Activity via Lysozyme Assay. Abstract accepted by the Student Research Conference, Truman State University, Kirksville, MO.

Peterson, K. (2019, Nov). Disulfide Bond Forming Enzyme Expression, Purification, and Activity. Oral presentation presented at Interdisciplinary BioMedical Research Symposium, A.T. Still University, Kirksville, MO.

Peterson, K., Tipler, A., Butler, M. (2019, Oct). Investigating the molecular mechanism of Disulfide Bond Forming Enzyme. Poster presented at the Midwest ACS Conference, Wichita, KS.

Peterson, K. (2019, Aug). Ocular Surface Squamous Neoplasia. Poster presented at the Summer Research Program Symposium, University of Nebraska-Lincoln, Lincoln, NE.

Peterson, K. (2019, Apr). Disulfide Bond Forming Enzyme Expression and Purification. Oral presentation presented at the Student Research Conference, Truman State University, Kirksville, MO.

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Bingham, C., **Peterson, K.** (2018, Oct). Expression & Purification of Disulfide Bond Forming Enzyme. Poster presented at Interdisciplinary BioMedical Research Symposium, A.T. Still University, Kirksville, MO.

Bingham, C., **Peterson, K.** (2018, Apr). Expression & Purification of Disulfide Bond Forming Enzyme. Poster presented at the Student Research Conference, Truman State University, Kirksville, MO.

HONORS, AWARDS, AND ACTIVITIES

McNair Scholar	Fall 2019-Present
Harry S. Truman Leadership Scholar	Fall 2017-Present
President's List	Fall 2017, Spring: 2018, 2019, 2020
Vice President for Academic Affairs' List	Fall 2018, Fall 2019
Alpha Chi Sigma Member	Fall 2019-Present

TECHNICAL SKILLS/INSTRUMENTATION

Microsoft Suite (Word, Powerpoint, Excel) -Proficient

Chimera -Basic

BioRender -Proficient