

Patterson, Jennifer
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Objective and intent:

My purpose of undertaking graduate studies is to acquire the background necessary to perform ground breaking research in the field of biochemistry. I aspire to someday work for a government lab, researching mechanisms of infection and the role of enzymes in disease development. Achieving a Ph.D. in chemical biology would give me the skills necessary to perform such research.

Education:

Ph.D. Candidate Currently Enrolled
University of Virginia, Charlottesville
Major: Chemical Biology

Bachelor of Science May 2009
Shippensburg University, Shippensburg
1st Major: Chemistry
2nd Major: Biology
Concentration: Biochemistry and pre-health respectively

Related Course Work

Pathogenic Microbiology, Experiments in Biophysics, General Chemistry, Organic Chemistry, Physical Chemistry, Inorganic Chemistry, Analytical Chemistry, Biochemistry, Principles of Biology, Genetics, Microbiology, Cell Biology, Anatomy, Physiology, Pathogenic Physiology, Virology, Immunology, and Physics.

Skills and Abilities:

Instrumental Proficiency

- MALDI-TOF
- ÄKTAprime™ plus
- TTP LabTech's mosquito

Data Analysis

- Experienced with Excel
- Proficient at statistical calculations

Laboratory Skills

- Accomplished with techniques including: cloning, cell culture, sterile techniques, protein expression and purification, crystallization screens, SDS-PAGE, and ELISA.

Research Experience

Internship

Summer internship at United States Army Medical Research Institute of Infectious Diseases (USAMRIID) from May 2008 till August 2008

- Analyzing the ability of various algal species to inhibit quorum sensing using CV026 as a model bacterium.
- Extraction of inhibitory factors from applicable species of algae.
- Development of a detection method for large samples of potential quorum sensing inhibitors.

Introduction to Research

Research under the advisement of Dr. Delis and Dr. McCann, Professors at Shippensburg University from fall 2008 till spring 2009

- Analyzing the production of Tetrodotoxin in *Notophthalmus viridescens*.
- Research grant from Shippensburg University Undergraduate Research Program.

Graduate Research

Research under the advisement of Dr. Cameron Mura at the University of Virginia from spring 2010 until present

- Functional and structural characterization of Hfq from two model organisms.

Achievements

- Academic scholarship from Coca-Cola 2005
- Secretary of health and science club 2005-2006, 2006-2007
- Dean's list Fall 2005, Fall 2006, Spring 2007
- Janice Turner Crawford Memorial Scholarship 2007-2008 academic year
- Member of Tri Beta honors society 2008
- Passed Candidacy Exam 2011
- Best Graduate Poster Presentation in the Structural Biology, Biochemistry & Biophysics section of the Virginia Academy of Sciences Annual Meeting (2011)