

Angela Z. Poole

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EDUCATIONAL INFORMATION:

Oregon State University, Corvallis OR

September 2014, PhD in Zoology

Advisor: Virginia Weis

Dissertation: The Role of Innate Immunity in Cnidarian-dinoflagellate Symbiosis

Berry College, Mt Berry, GA

May 2008 B.S. summa cum laude in Biology

University of Rochester, Rochester NY

Attended August 2004-May 2006.

PROFESSIONAL APPOINTMENTS:

Assistant Professor of Biology, Berry College

August 2017-present

Non-tenure track Assistant Professor of Biology, Western Oregon University

September 2014-June 2017

Graduate Research and Teaching Assistant, Oregon State University

September 2008-2014

TEACHING EXPERIENCE:

Berry College:

BIO 206: Human Anatomy and Physiology I

Western Oregon University:

BI101 Lecture and Lab: Ecology and Evolution (4 quarters)

BI102 Lecture and Lab: Cell and Molecular Biology (2 quarters)

BI103 Lecture and Lab: Plant and Animal Anatomy and Physiology (5 quarters)

BI211 Lecture and Lab: Cell and Molecular biology (4 quarters)

BI212 Lab: Evolution, Diversity of Life (3 quarters)

BI213 Lab: Plant and Animal Anatomy and Physiology (1 quarter)

Oregon State University (As a graduate teaching assistant, * = instructor on record for course)

Z451: Functional Anatomy of the Human Muscular System (2 quarters)

*Z333: Human Anatomy & Physiology Lecture (Cardiovascular, Respiratory, Urinary, and Digestive Systems- 2 quarters)

*Z341: Human Anatomy & Physiology Labs (Skeletal and Muscular Systems-5 quarters)

*Z342: Human Anatomy & Physiology Lab (Nervous, Endocrine, and Reproductive Systems-1 quarter, served as mentor TA)

*Z343: Human Anatomy & Physiology Lab (Cardiovascular, Respiratory, Urinary, and Digestive Systems): 1 quarter

*Z362: Invertebrate Biology Lab (5 quarters)

BI 211, 212: Introductory Biology Lab (2 quarters)

OTHER RELEVANT EXPERIENCE IN THE EDUCATION FIELD:

Willamette Promise Biology Faculty Member Representative

Western Oregon University

June 2015- June 2017

- Worked on a team with high school biology teachers to review proficiencies, rubrics, and exams for a new dual credit opportunity for high school students to earn Bi101 and Bi102 credit through Western Oregon University.

Conducting IRB approved study on invertebrate biology lab curriculum

Oregon State University

April 2014-June 2014

- Approved to perform research on invertebrate biology lab students to measure success of the newly developed curriculum (see below)
- Study includes educational background survey, pre- and post-assessments, and a student satisfaction survey

Curriculum Redesign for Invertebrate Biology Lab (Z362)

Oregon State University

January 2013-March 2013

- Redesigned the course and wrote a new lab manual with the help of another graduate student. The labs were piloted in the spring of 2013.
- Labs take a comparative approach to teaching the invertebrate phyla: each week represents one theme and how several phyla accomplish this (Ex. Reproduction and Development, Feeding Strategies, etc.).
- Goal was to make the course more experimental based and interdisciplinary.

Guest Lectures

All at Oregon State University

- One lecture for Z333 (Human Anatomy & Physiology), *April 2014*
- One lecture for Z333 (Human Anatomy & Physiology), *May 2013*
- Two lectures for Z361 (Invertebrate Biology Lecture), *April 2013*
- One lecture for BI358 (Symbiosis and the Environment), *March 2011*
- One lecture for Z361 (Invertebrate Biology Lecture), *May 2010*

PUBLICATIONS:

Kitchen, SA; **Poole, AZ**; Weis, VM (In review) Sphingolipid metabolism of a sea anemone is altered by the presence of dinoflagellate symbionts. *Bio Bull*.

Boomer, SM; Baltzley, MJ; **Poole, AZ**; Latham-Scott, KL; Poole, JP (In review) An In-House Biology Placement Test Improves Success in Majors Introductory Biology. *American Biology Teacher*.

Neubauer, EF; **Poole, AZ**; Neubauer, P; Detournay, O; Tan K; Davy SK; and Weis VW. (2017) A diverse host thrombospondin-type-1 repeat protein repertoire promotes symbiont colonization during establishment of cnidarian-dinoflagellate symbiosis. *eLife* 6:e24494

Neubauer, EF; **Poole, AZ**, Weis, V; Davy SK. (2016) The scavenger receptor repertoire in six cnidarian species and its putative role in cnidarian-dinoflagellate symbiosis. *Peer J*, e2692

Poole, AZ; Kitchen, SA; Weis, VM. (2016) The role of complement in cnidarian-dinoflagellate symbiosis and immune challenge in the anemone *Aiptasia*. *Frontiers in microbiology*. 7.

Morgan, MB; Goodner, K; **Poole, AZ**; Ross, J; Stepp, SE; Stuart, C; Wilbanks, CD; Weil, E. (2015) Development and application of molecular biomarkers for characterizing Caribbean Yellow Band Disease in *Orbicella faveolata*. *Peer J*.

Kitchen, S; Crowder, C; **Poole, A**; Weis, V; Meyer, E. (2015) *De novo* assembly and characterization of four Anthozoan (Cnidaria) transcriptomes. *G3*, g3-115

Poole, AZ; Weis, VM (2014) TIR-domain-containing protein repertoire of nine Anthozoan species reveals coral-specific expansions and uncharacterized proteins. *Dev Comp Immunol*, 46(2): 480-488.

Detournay, O; Schnitzler, CE; **Poole, A**; Weis VM (2012) Regulation of cnidarian-dinoflagellate mutualisms: Evidence that activation of a host TGFB innate immune pathway promotes tolerance of the symbiont. *Dev Comp Immunol*, 38(4): 525-37.

PROFESSIONAL TALKS/SEMINARS:

12th International Coral Reef Symposium, Cairns Australia, *July 2012*
The role of complement in cnidarian-dinoflagellate symbiosis

Basal Metazoans and the Evolution of Multicellular Complexity, Tutzing Germany, *September 2011*
Characterization and Evolution of Molecules Involved in Cnidarian-dinoflagellate symbiosis

11th International Coral Reef Symposium, Ft. Lauderdale, FL, *July 2008*
Differential gene expression displayed by *Pocillopora damicornis* in response to infection by *Vibrio coralliilyticus*

Symbiofest, University of Georgia, *May 2008*

Differential gene expression displayed by *Pocillopora damicornis* in response to infection by *Vibrio coralliilyticus*

Biology Department Seminar, Berry College, *April 2008*

Differential gene expression displayed by *Pocillopora damicornis* in response to infection by *Vibrio coralliilyticus*

Symposium on Student Scholarship, Berry College, *April 2007*

Coral Response to Bacterial Induced Bleaching in Fiji

Biology Department Seminar, Berry College, *September 2006*

Isolation of Three Oxidative Stress Induced Genes in *Aiptasia pallida*

POSTER PRESENTATIONS:

Society for Integrative and Comparative Biology, Portland, OR, *January 2016*

The role of complement in challenge of the anemone *Aiptasia* with *Serratia marcescens*

Symbiosis Workshop, Yosemite CA, *May 2014*

Laser capture microdissection (LCM) as a technique for studying tissue specific expression differences in *Aiptasia pallida*

CGRB Annual Conference, *September 2012*

The role of complement in cnidarian-dinoflagellate symbiosis

Symbiosis Workshop, Yosemite CA, *May 2012*

The role of complement in cnidarian-dinoflagellate symbiosis

Society for Integrative and Comparative Biology, Seattle WA, *January 2010*

The Role of DNA Methylation in Cnidarian-algal Symbiosis

MENTOR FOR UNDERGRADUATE STUDENT RESEARCH:

- Kenneth Tan: *June-September 2016*
 - Assisted Ken in writing a proposal to successfully obtain a Summer Undergraduate Research Experience (SURE) fellowship at OSU and carrying out the proposed research project.
- Ellen Dow: *January 2012-August 2014*
 - Assisted Ellen in designing and carrying out independent research projects for the URISC (undergraduate research award) and HHMI programs at OSU
 - Taught relevant molecular techniques and data analysis pipelines
- Jennifer Mai: *June 2013- August 2013*
 - Taught relevant molecular techniques to perform a summer research project
- Ben Haslam: *December 2010-April 2012*
 - Taught relevant lab techniques to assist me with research related to my thesis.

- Brian Henrichs: *October 2009-March 2011*
 - Supervised in designing and conducting independent research projects
- Matt Solberg: *September 2009-December 2009*
 - Taught relevant lab techniques to assist me with research related to my thesis.
- Alex Hirota: *April 2009- June 2009*
 - Taught relevant lab techniques to assist me with research related to my thesis.

AWARDS AND SPECIAL RECOGNITIONS:

- Castor Canadensis Student Award for Outstanding Department Service, Oregon State University, Department of Integrative Biology, *June 2014*
- Departmental Nominee for the Herbert F. Frolander award for outstanding graduate teaching assistant, Oregon State University, *March 2014*
- ZORF grant, Oregon State University, Integrative Biology Department, *2009-2014*
 - Department of Integrative Biology annual grant to provide students with funds for research and travel expenses.
- College of Science Travel Grant Award, \$400, Oregon State University, *May 2012*
- Outstanding Student in Biology Award, Berry College, *April 2008*
- Who's who among American College Students, *November 2007*
- Nominated to the New York district for the Rhodes Scholarship, *September 2007*
- Most Effective Communication of Oral Presentation, Berry College, *April 2007*.
- Academic Merit Scholarship, Berry College, *2006-2008*.

PROFESSIONAL SERVICE:

University Service:

- Head of Student Committee for Promotion and Tenure, *November 2011*
Oregon State University

Departmental Service:

- Graduate student Co-President, *2012-2013 academic year*
Department of Integrative Biology, Oregon State University
- Head of Biology Graduate Student Symposium committee, *2011-2012 academic year*
Department of Integrative Biology, Oregon State University
 - Organized annual graduate student conference to provide an informal setting for graduate students to present their research and to promote interdepartmental interactions.
- Biology Graduate Student Symposium committee member, *2009-2011 academic years*
Department of Integrative Biology, Oregon State University

Community Service:

- Winter Wondering Coordinator, Oregon State University, *2011-2013*
 - Organized and led educational, activity based sessions for gifted elementary school students on areas of science related to my research.
- Salmon Bowl Volunteer, Oregon State University, *February 2009*