

Andrea M. Suria, Ph.D.

Department of Biological Sciences, Ohio Wesleyan University, Delaware, OH 43015
asuria25@gmail.com | 201-362-9650

EDUCATION

- 2019** **Ph.D. in Molecular and Cell Biology, Concentration in Microbiology**
Department of Molecular and Cell Biology, University of Connecticut, Storrs, Connecticut

Dissertation: Investigation of antimicrobial activity and metabolic genes in bacterial symbionts associated with the female reproductive system of the Hawaiian bobtail squid, *Euprymna scolopes*
- 2018** **Graduate Certificate in College Instruction**
Neag School of Education, University of Connecticut, Storrs, Connecticut
- 2012** **B.S. in Biology, Minor in Chemistry**
Department of Biological Sciences, Fairleigh Dickinson University, Teaneck, New Jersey

PROFESSIONAL EXPERIENCE

- 2023 – Present** **Assistant Professor of Biological Sciences**
Department of Biological Sciences, Ohio Wesleyan University, Delaware, OH
- 2021** **Visiting Assistant Professor**
Department of Biological and Biomedical Sciences, North Carolina Central University, Durham, NC
- 2019 – 2023** **NIH IRACDA Postdoctoral Scholar**
Department of Earth, Marine, and Environmental Sciences, University of North Carolina at Chapel Hill, Chapel Hill, NC
Mentor: Dr. Alecia Septer

Research: Determining genes required for bacterial competition in reproductive symbionts of the Hawaiian bobtail squid, *Euprymna scolopes*
- 2013 – 2019** **Ph.D. Candidate**
Department of Molecular and Cell biology, University of Connecticut, Storrs, Connecticut
Mentor: Dr. Spencer Nyholm

Research: Metagenomics, metatranscriptomics, and antimicrobial activity of reproductive symbionts of the Hawaiian bobtail squid, *Euprymna scolopes*
- 2012 – 2013** **Research Technician**
Department of Biological Sciences, Fairleigh Dickinson University, Teaneck, New Jersey
Mentors: Dr. Mihaela Leonida & Alice Benzecry

Research: Synthesized and tested antimicrobial activity of chitosan nanoparticles loaded with hop plant extracts

PUBLICATIONS (*Authors contributed equally; †Undergraduate researcher)

- **Suria, A.M.**, S. Smith, L. Speare, Y. Chent†, I. Chient†, E.G. Clark†, M. Krugert†, A.M. Warwick†, H. Wilkin†, A.N. Septer. **2022**. Prevalence of Type VI Secretion Systems in a Model Beneficial Symbiosis. *Frontiers in Microbiology*, DOI: 10.3389/fmicb.2022.9889044.
- McAnulty, S.J.*, A.H. Kerwin*, E. Koch, B. Nuttall, **A.M. Suria**, A.J. Collins, T.R. Schleicher, B.A. Rader, S.V. Nyholm. **2022**. "Failure to Launch": Development of a reproductive organ linked to symbiotic bacteria. *mBio*, DOI: 10.1128/mbio.02131-22.
- **Suria, A.M.***, K. Tan*, A.H. Kerwin, L. Gitzel, L. Abini-Agbomson†, J. Bertenshaw†, J. Sewell†, M.J. Balunas, and S.V. Nyholm. **2020**. Hawaiian bobtail squid symbionts inhibit marine bacteria via production of specialized metabolites, including new bromoalterochromides BAC-D/D'. *mSphere*, 5:e00166-20. DOI: 10.1128/mSphere.00166-20.
- Kerwin, A.H.*, S. Gromek*, **A.M. Suria**, R.M. Samples, D.J. Deoss†, K. O'Donnell, S. Frasca Jr., D.A. Sutton, N.P. Wiederhold, M.J., Balunas, and S.V. Nyholm. **2019**. Shielding the next generation: symbiotic bacteria from a reproductive organ protect bobtail squid eggs from fungal fouling. *mBio*, 10(5): e02376-19. DOI: 10.1128/mBio.02376-19.
- Belcaid, M., G. Casaburi, S.J. McAnulty, H. Schmidbaur, **A.M. Suria**, S. Moriano-Gutierrez, M.S. Pankey, T.H. Oakley, N. Kremer, E.J. Koch, A.J. Collins, H. Nguyen, S. Lek, I. Goncharenko-Foster, P. Minx, E. Sodergren, G. Weinstock, D.S. Rokhsar, M. McFall-Ngai, O. Simakov, J.S. Foster, and S.V. Nyholm. **2019**. Symbiotic organs shaped by distinct modes of genome evolution in cephalopods. *PNAS*, Jan, DOI:10.1073/pnas.1817322116.
- Leonida, M.D., S. Belbekhouche, A. Benzecry, M. Peddineni, **A.M. Suria**, B. Carbonnier. **2018**. Antibacterial hop extracts encapsulated in nanochitosan matrices. *International Journal of Biological Macromolecules*, 120 (A): 1335-1343. doi: 10.1016/j.ijbiomac.2018.09.003.
- Gromek, S.M.*, **A.M. Suria***, M.S. Fullmer, J.L. Garcia, J.P. Gogarten, S.V. Nyholm, M.J. Balunas. **2016**. *Leisingera* sp. JC1, a bacterial isolate from Hawaiian bobtail squid eggs, produces indigoidine and differentially inhibits vibrios. *Frontiers in Microbiology*, 7 (September). doi: 10.3389/fmicb.2016.01342.

TEACHING & MENTORING EXPERIENCE

Ohio Wesleyan University <i>Assistant Professor</i>	Delaware, OH	2023 – Present
<ul style="list-style-type: none"> • Molecular Genetics (BIOL352) 		FA 2023
<i>Mentor</i>		
<ul style="list-style-type: none"> • Ivan Vore, <i>Independent Study</i> (BIOL 490) • Andrew Inamdar 		FA 2023 – Present FA 2023 - Present
North Carolina Central University <i>Visiting Professor</i>	Durham, NC	2021
<ul style="list-style-type: none"> • Molecular Biology of the Cell I (BIOL2200) • Special Topics: Microbe Hunters (BIOL2030) 		SP 2021 FA 2021
University of North Carolina at Chapel Hill <i>Curriculum Design</i>	Chapel Hill, NC	2019 – 2023
<ul style="list-style-type: none"> • Scientists Promoting Anti-Racism Conversations and Equity (SPACE): Designed 3 modules for the Biology & Biomedical Sciences Program 		2020 – 2023

Guest Lecturer

- How to Give a Seminar (MASC 705): "Social Media in Academia" FA 2019

Mentor

- Klodia Badal, *undergraduate researcher* FA 2022 – SP 2023
- Daniela Zarate, *undergraduate researcher* SP 2022 – SP 2023
- Selena Garcia, *SPIRE Summer Undergraduate Research Program (NCCU)* Summer 2022
- Kylie Showalter, *undergraduate researcher* FA 2021 – SP 2022
- Yuzhou Chen, *undergraduate researcher* FA 2020 – SP 2022
- Cady Hall, *undergraduate researcher* FA 2021
- Jonathan Cheong, *National Summer Undergraduate Research Program (NSURP, Cornell)* Summer 2020
- Maddy Krueger, *Undergraduate Research Consultant Team (URCT)* FA 2019 – SP 2020
- Hannah Wilkins, *URCT* FA 2019 – SP 2020
- Alexander Mac Warwick, *URCT* FA 2019 – SP 2020
- Emily Grace Clark, *URCT* FA 2019 – SP 2020

Thesis Committee Advisor

- Garrett Sharpe, PhD candidate in Environment, Ecology, and Energy Program FA 2020 – SP 2023

University of Connecticut

Storrs, CT

2015 - 2019

Instructor of Record

- Advanced Theory and Practice of Laboratory Techniques in Microbiology: Characterization of Microbial Communities by 16S rRNA gene sequencing (MCB 5671-02) Summer 2017, 2018

Teaching Assistant

- Lab Techniques in Functional Genomics: Intro to Molecular Biology (MCB 5427-001) FA 2017 – SP 2019
- Lab Techniques in Functional Genomics: Intro to qRT-PCR (MCB 5427-002) SP 2018 – SP 2019
- Lab Techniques in Functional Genomics: Genotyping and Sequencing (MCB 5427-003) SP 2017 – SP 2019
- Preparation for STEM Academic Research (UNIV 2100) SP 2016 – SP 2018
- Pathogenic Microbiology (MCB 3633) FA 2016 – FA 2018
- Introduction to Biochemistry (MCB 2000) Summer 2015

Guest Lecturer

- Pathogenic Microbiology (MCB 3633) FA 2016 – FA 2018
- Research Literature in Molecular and Cell biology: Symbiosis (MCB 6347) SP 2015, 2018, 2019

Mentor

- Abishek Arokiadoss, *Honors thesis, squid husbandry* SP 2018 – SP 2019
- Eric Jackson, *Professional Science Masters student* FA 2018 – SP 2019
- Sarah Cleveland, *McNair Scholar, squid husbandry* FA 2017 – SP 2019
- Courtney Marren, *squid husbandry* FA 2017 – SP 2019
- Hope Dieffenbach, *2018 SURF Fellow, squid husbandry* FA 2017 – SP 2019
- Lydia Abini-Agbomson, *McNair Scholar, squid husbandry* SP 2017 – FA 2018
- Jaydeen Sewell, *LSAMP Scholar, Honors thesis, squid husbandry* SP 2017 – SP 2018
- Elise Huysman, *squid husbandry* FA 2016 – SP 2019
- Samantha Mazur, *squid husbandry* FA 2016 – SP 2017
- Sahibjot Sran, *squid husbandry* FA 2015 – SP 2018
- Jessica Bertenshaw, *Honors thesis, 2017 SURF Fellow, squid husbandry* FA 2015 – SP 2018
- Matthew Cucurello, *2016 SURF Fellow, squid husbandry* FA 2015 – FA 2017
- Ciera Hunter, *squid husbandry* FA 2015 – SP 2016
- Nathan Lawlor, *Professional Science Masters student, squid husbandry* FA 2014 – SP 2015
- Hebo Ismail, *McNair Scholar, squid husbandry* FA 2014 – SP 2015

- Jennifer Chin, *squid husbandry* FA 2014 – SP 2015
- Patrick Clarke, *squid husbandry* FA 2014 – SP 2015
- Zach Pierce, *squid husbandry* FA 2014 – SP 2015

Fairleigh Dickinson University

Teaneck, NJ

2010-2013

Teaching Assistant

- Analytical Chemistry (CHEM 2223) SP 2013
- Biochemistry I (CHEM 3281) FA 2013

Guest Lecturer

- Microbiology for Health Sciences (BIOL 2126) SP 2013
- Biology Seminar Series (BIOL 6900) SP 2010, 2012

AWARDS & HONORS

Fellowships/Grants:

- 2023 NIGHTSEA/EMS Key Award Aug 2023
- NIH IRACDA-SPIRE Postdoctoral Fellowship, UNC Chapel Hill Sep 2019 – Sep 2021
- UConn Microbiome Fellowship May 2019 – Aug 2019
- GRC Carl Storm Underrepresented Minority Fellowship June 2017
- UConn MCB Jean Lucas-Lenard Special Summer Fellowship in Biochemistry May 2017 – Aug 2017
- UConn Cross-Disciplinary Fellowship in MCB and Pharmaceutical Sciences May 2017 – Aug 2017
- UConn Doctoral Dissertation Fellowship Jan 2017 – May 2017
- UConn Crandall-Cordero Fellowship Aug 2016 – Aug 2018
- Sigma Xi Grants-in-Aid of Research Feb 2016 – Jan 2017
- UConn 2016 Graduate Travel Award May 2016
- Co-Organized successful Experiment.com crowd funding campaign: "How do Bobtail Squid Choose their Glowing Bacterial Partner?" Funded on Sep 16, 2014
- UConn Outstanding Multicultural Scholars Program Fellowship Aug 2013 – Aug 2016
- Colonel Fairleigh S. Dickinson Scholarship, Fairleigh Dickinson University Aug 2008 – May 2012

Honors:

- 2018 Ford Foundation Dissertation Fellowship – Honorable Mention
- 2015 NSF Graduate Research Fellowship Program - Honorable Mention

SERVICE & OUTREACH

UNC-CH Dept. of Marine Science Diversity, Equity, Inclusion Committee **2020 – 2023**

- Organize trainings, creating equitable graduate admissions policies and inclusive fieldwork guidelines

UNC-CH GeoInterns Sumer Program Mentor **2021 - 2022**

- Mentored 6 students from PSRC Early College High School (Lumberton, NC) through a 4-week research project

Virtual Admitted Students Experience Panelist, Fairleigh Dickinson University **2020**

- Discussed how to get involved in research as an undergraduate student

Academic Social Media Workshop, University of North Carolina at Chapel Hill **2019**

- Led a 1.5 hour workshop on using twitter in academia for the Office of Undergraduate Research

UConn McNair Scholars/LSAMP Mentor **2015 – 2019**

- Summer research mentor to 4 scholars in the Nyholm Lab
- Reviewed graduate school applications and served on graduate school panel discussions

["Breaking the Cycle of Knowledge Gaps"](#) Blog Post **2017**

- *That Wasn't on the Syllabus Blog* run by the UConn NEAG School of Education
- Microbe Safari Workshop**, Connecticut State Museum of Natural History **2015, 2017**
 - Designed and taught a hands-on workshop to explore beneficial environmental microbes
- Skype a Scientist**, Online program **2017**
 - Virtually shared my research with 4th grade classes in Bartlett, TN
- Connecticut Regional Middle School Science Bowl** **2015 - 2017**
 - Timekeeper, controlled timing of game and buzzer system
- Connecticut Invention Convention** **2015 - 2017**
 - Judge, led small group presentations of projects and scored inventors
- Science Fair Judge**, Park City Prep Charter School, Bridgeport, CT **2015**
 - Scored students in the 5th, 6th, and 8th grade science fairs
- 3rd Annual Microbe Phobia Film Festival**, UConn Undergraduate Microbiology Society **2014**
 - Conducted an interactive demo with bioluminescent bacteria

PROFESSIONAL DEVELOPMENT

Diversity, Equity, and Inclusion

- AdvanceGEO Bystander Intervention Workshop (1 day) Oct 2022
- Racial Equity Institute: Structural Racism Groundwater Training (1 day) May 2022
- AdvanceGEO Implicit Biases Workshop (1 day) Feb 2022
- NRMN Culturally Aware Mentorship Workshop (1 day) Jun 2022
- Mental Health First Aid Training (1 day) Oct 2021
- UNC-CH LGBTQ Center: Safe Zone Training (1 day) Aug 2021
- Unlearning Racism in Geoscience (URGE) Program (16 weeks) Jan – May 2021
- UNC-CH Entering Mentoring Workshop (4 days) Mar – Apr 2020

Teaching & Learning

- UNC-CH Center for Faculty Excellence – Pedagogy Reading Circle: *Inclusive Teaching: Strategies for Promoting Equity in the College Classroom* by Dr. Kelly Hogan & Dr. Viji Sathy Sep – Nov 2022
- Tiny Earth Network Partner Instructor Online Training (4 days) Jan 2021
- UNC-CH Center for Faculty Excellence Showcase (2 days) Apr 2021
- Flipped Classroom Workshop by Barbi Honeycott, PhD (3 days) Oct 2020
- UNC-CH SPIRE Teaching Seminar (10 weeks) Sep – Nov 2020
- UNC System Digital Learning Initiative: Designing Effective Online Courses (4 weeks) Aug – Sep 2020
- Attended the 27th Annual American Society for Microbiology Conference for Undergraduate Educators (2 days) Jul 2020
- Teaching Undergraduate Biology Webinar Series (American Society for Microbiology) June 2020
- Effective Teaching Workshop (Rebecca Brent, EdD & Richard Felder, PhD, 1 day) Jan 2020
- National Center for Faculty Development and Diversity “Core Curriculum” seminars Jan – Aug 2018
- Attended the SREB 24th Annual Institute on Teaching and Mentoring Oct 2017

Microbiology

- Attended the T6SS Online Symposium (3 days) Apr 2020

- Attended the Vibrio Online Conference (3 days) May 2020
- Attended and helped organize the 32nd Annual Squid-Vibrio Meeting (2 days) Jun 2020
- “Strategies and Techniques for Analyzing Microbial Population Structures” Advanced Research Training Course (Marine Biological Laboratory, 2 weeks) Jul - Aug 2017
- Student member, American Society for Microbiology 2014 - 2020
- Student member, International Symbiosis Society 2018 - 2019
- Student member, American Association for the Advancement of Science (AAS) 2014 - 2017

SELECT PRESENTATIONS

Molecular Genetics of Bacteria and Phages Meeting – Madison, WI (2022)

Talk: *Determining genes involved in interbacterial killing in Hawaiian bobtail squid reproductive symbionts*

33rd Euprymna scolopes-Vibrio fischeri Symbiosis Symposium – Virtual (2021)

Talk: *Characterization of the Type VI Secretion System Gene Clusters in Vibrio Genomes*

University of North Carolina at Pembroke, Johnson C. Smith University, North Carolina Central University, North Carolina A&T University – NC (2020)

Invited seminars: *Defensive Symbioses: How bacteria protect their hosts*

UNC-CH Department of Marine Science – Chapel Hill, NC (2020)

Invited seminar: *Reproductive Symbiosis: How Bacteria in Squid Eggs Protect Against Fungal Infections*

Gordon Research Conference: Animal-Microbe Symbioses – Dover, VT (2019)

Poster: *Metagenomic and metatranscriptomic analyses of symbiont metabolism in a female reproductive gland of the Hawaiian bobtail squid*

9th International Symbiosis Society Congress – Corvallis, OR (2018)

Talk: *Insights into Hawaiian bobtail squid egg defense from metagenomic and metatranscriptomic analyses of the accessory nidamental gland symbiotic community*

5th Annual CT Symbiosis Symposium – Orange, CT (2016)

Talk: *Exploring the role of beneficial bacteria in squid egg defense*

Fairleigh Dickinson University School of Natural Sciences – Teaneck, NJ (2016)

Invited seminar: *Beneficial host-microbe interactions in the Hawaiian bobtail squid, Euprymna scolopes*

45th Annual Benthic Ecology Meeting – Portland, ME (2016)

Talk: *Inhibitory activity of bacteria in the female reproductive tract of the Hawaiian bobtail squid, Euprymna scolopes*

6th American Society for Microbiology Conference on Beneficial Microbes – Seattle, WA (2016)

Poster: *Inhibitory activity and indigoidine production of a squid egg symbiont, Leisingera sp. JC1*