

## CURRICULUM VITAE

**Laura A. Biggs, Ph.D.**

Assistant Professor- The University Of Guam

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### EDUCATION

- June 2009                      Doctor of Philosophy  
Department of Pharmacology and Toxicology, College of Pharmacy  
University of Utah, Salt Lake City, Utah  
Dissertation Advisor: H. Steve White, Pharm D, Ph.D.
- June 2003                      Bachelor of Arts  
Department of Biology, Major Program: Biology, Minor Program: Education  
Manhattanville College, Purchase, New York

### EMPLOYMENT

- August 2009 - Present      Assistant Professor  
Extension and Education Services  
Sea Grant Program  
University of Guam, Mangilao, Guam
- August 2013 - May 2014    Consultant  
STEM Education Professional Development Workshops  
Professional and International Programs  
University of Guam, Mangilao, Guam
- July 2008 - Fall 2009      Enrichment Coordinator  
Let's Do Science Program  
Olivera Lab  
University of Utah, Salt Lake City, Utah
- August 2006- June 2008    Volunteer  
Let's Do Science Program  
Olivera Lab  
University of Utah, Salt Lake City, Utah
- July 2002-July 2003        Lab Technician  
New York Medial College, Valhalla, New York

#### **Assistant Professor, August 2009-present, Sea Grant Extension Program, University of Guam**

- Submit program grant to National Sea Grant Office, which was awarded with increased funding in 2012 (from \$140,000 to \$255,000).
- Manage multiple multi-year grant awards totaling 2 million dollars over four years (2014-2018).
- Identify local and regional community projects and partners, plan and implement programs at community level to foster environmental stewardship.
- Establish community based conversation program, Builders of a Better Bay, aimed at bringing current science to the community to inform decisions at the local and governmental level, ultimately improving water quality.
- Establish regional collaborations that have resulted in permanent partnerships and capacity building opportunities for partners.
- Engage in strategic planning process for UOG Sea Grant Program.
- Implement board recommendations and strategic plan initiatives. Coordinated biannual board meetings.
- Conduct major program development and management, including numerous grant applications (10+ including National Science Foundation, National Oceanic and Atmospheric Administration, Western Pacific Coral Reef Institute, Environmental Protection Agency, Guam Preservation Trust), sub awards (Department of Agriculture and Palau Conservation Society), and executed contracts.
- Develop Sea Grant Graduate Student Research Fellowship program by conducting targeted discussions with regional advisory board, weighing community and workforce needs.
- Serve as the Pacific Integrated Ocean Observing Systems liaison 2012 - present. Principally in charge of managing staff and in-water near shore water quality monitoring system, data reporting and analysis.
- Design and implemented a continuing education courses entitled 'Island Science for Teachers' and 'Sustainable Science for Teachers'
- Co-develop and manage piloting of Guam-centric environmental and marine literacy curriculum for grades 3-5 in Guam Department of Education.
- Facilitate the launch of a UOG Sea Grant website ([www.uog.edu/seagrant](http://www.uog.edu/seagrant)).
- Manage UOG Sea Grant up to ten staff and interns, website, budget, hiring daily operations
- Wrote and submitted annual reporting to National Sea Grant Office.
- Facilitate collaborations with Guam Department of Education and local business to increase environmental awareness and literacy.

### **STEM Education Professional Development Workshops, Fall 2013-Spring 2014, Professional and International Programs, Guam**

- Worked collaboratively with fellow faculty to coordinate, instruct, and manage course development and implementation for 30 Guam Department of Education middle and high school science teachers over the course of the 2013-2014 academic year.
- Developed curriculum for ten (10) professional development sessions
- Coordinated STEM experts panel discussion and facilitate expert guidance to STEM lesson development for high school classrooms.

### **Enrichment Coordinator, Fall 2006- Fall 2009, Olivera Lab, Department of Biology, University of Utah**

- Designed a three-day biochemistry and biodiversity lesson plan and supplemental educational materials designed to recruit young students into biomedical careers (based on an Howard Hughes Medical Institute grant received by Dr. Baldomero Olivera).
- Co-authored 36-page “Let’s Do Science” book designed to provide K-5 students and their teachers with the materials necessary to obtain maximum benefit.
- Interacted directly with Salt Lake School District Science Specialists in order to implement curriculum for K-5 students.
- Interacted directly with teachers at Bonneville, Escalante, and Whittier Elementary schools to schedule and prepare their students for our enrichment program.
- Conducted pilot lesson at Bonneville, Escalante and Whittier Elementary schools to test the validity of our program model.
- Hired, trained and managed a team of 8-10 employees to implement the Let’s Do Science enrichment program in K-5 Guam
- Department of Education classes reaching over 1200 students in 1.5 years.
- Designed and successfully implemented a new course through the Biology department to involve undergraduates in the enrichment program.
- Co-developed BIOL 3900 as a course to train undergraduate students to teach “Let’s Do Science” in Spring 2008.

### **Graduate and Continuing Education Teaching Experience**

PIP 494 Gateway to Marine Science	Gateway course for incoming freshmen to introduce concepts of marine and watershed science. Recruit for Marine Science Certificate Program – Summer 2015
BI503 Scientific Writings	Graduate level course teaching scientific writing for purposes of professional grant and publications – 3 credits – Spring 2015
PIP894	Island Science for Teachers - course for current teachers focusing on science content relevant to Guam’s ecosystem – 3 Credits – Spring 2012
PIP894	Island Science for Teachers - course for current teachers focusing on science content relevant to Guam’s ecosystem – 3 Credits – Spring 2010
PIP894	Assessing Guam’s Ecosystem for Teachers - credit offered for participation in weeklong Navigating Change workshop. Course offered to teachers focused on understanding Guam’s ecology and biology through a cultural lens - 3 credits - Summer 2010
PHTX 5121	Biomedical Basis of Disease - Seizure Disorders - Spring 2006 & Spring 2007
PHTX 5211	Pharmacology I – Local Anesthetics – Fall 2006 & Fall 2007
PHTX 5221/6221	Pharmacology II - Thyroid Pharmacology – Spring 2006
PHTX 5122/6680	Statistical Methods for Pharmacological Research - One Sample Statistical Hypothesis Testing – Spring 2008
PHTX 5122/6680	Statistical Methods for Pharmacological Research – Chi-squared and Mann Whitney U – Spring 2008
PHTX 7270	Neuropharmacology – Neuropharmacology of Schizophrenia – Spring 2008
BIOL 3900	Teaching Biology –“Let’s Do Science” - Spring 2008

### **Volunteer and Community Contributions**

Summer 2015 – present – Water Expert, Race for Water Foundation  
Fall 2012-present - Co-chair - Guam Nature Alliance, Tasi subcommittee  
Spring 2015 – Chair - Search Committee Assistant Professor, Sea Grant, Cooperative Extension Service, University of Guam  
Spring 2015 – Member -Search Committee Nutrition Faculty Position, Cooperative Extension Service, University of Guam  
Spring 2014 - Member - Search Committee TADEO Director Position, University of Guam  
Spring 2013 - Coordinator, Healthy Guam Healthy You Symposium, UOG  
Fall 2012-present - Member, Mission Zero Bag Campaign, Payless Supermarkets  
Spring 2012-present - Member, Guam Energy Task Force  
Spring 2013 - Science Fair Judge, Guam Science Fair, Mangilao, GU  
Spring 2012 - Science Fair Judge, Guam Science Fair, Mangilao, GU  
Spring 2011 - Science Fair Judge, Guam Science Fair, Mangilao, GU  
Spring 2011 - Science Fair Judge, F.Q. Sanchez Elementary School, Merizo, Guam  
January 2010 - Guest Speaker and Panelist, Seeds of Change Conference  
February 2010 - Panelist, YOUTHSPEAK Conference  
Summer 2010 - Coordinator, Navigating Change Curriculum Workshop, Ritidian Point, Guam  
Spring 2010 - Science Fair Judge, St. Johns School, Upper Tumon, Guam  
Spring 2009 - Science Fair Judge, Harry S. Truman Elementary, Santa Rita, Guam

### **Presentations**

2015 - Invited Speaker, Payuta Conference, Climate Change on Guam, Guam Community College  
2015 – Presenter, Pacific Risk Management Ohana Meeting, Assessing Perceptions Towards Coastal Storms Vulnerability on Guam  
2015 - Presenter, Conference on Island Sustainability, Environmental Working Group  
2013 – Presenter, Conference on Island Sustainability, Perceptions towards renewable energy on Guam  
2012 - Presenter, Conference on Island Sustainability, Guam-centric curriculum  
2011 - Presenter, Conference on Island Sustainability, Guam Green Business Program  
2011 - Sea Grant Academy, Intensive training academy open to Sea Grant extension agents and faculty.

#### **Awards Received**

2010 - Manfayi International Peace Award (Recognizes an individual who demonstrates a commitment and leadership within the community. Guam.)  
2008 - Wolf Prize (Recognizes and rewards excellent teaching by a Ph.D. student graduating from any department in the College of Pharmacy who has demonstrated interest in teaching, and sought new teaching opportunities throughout their Ph.D. career.) University of Utah, Salt Lake City, Utah.

#### **Grants Received**

- 1) 2015-2020 - Co- Principal Investigator, Experimental Program to Stimulate Competitive Research (EPSCoR), Summer 2014, awarded 6 million dollars
- 2) 2015-2016 – Co-Principal Investigator, NOAA Marine Education Training Grant, Summer 2015, Awarded \$16,210: Quantitative Underwater Surveying Techniques (QUEST) 2.0.
- 3) 2015 - Principal Investigator, Center for Island Sustainability Faculty Grant, Spring 2015, Awarded \$3,000: Gateway to Marine Science course.
- 4) 2013 - Principal Investigator, Coastal Storms Program Grant, Awarded \$109,400: Assessing Perceptions towards Coastal Storms Vulnerability on Guam.
- 5) 2012-2014 – Co-Principal Investigator, NOAA Marine Education Training Grant, Spring 2012, Awarded \$15,000: Quantitative Underwater Surveying Techniques (QUEST) on Guam.
- 6) 2012-2016 - Principal Investigator, Sea Grant Coherent Area Program. Obtained Coherent Area Program Status for UOG, Awarded \$1.02 million dollars.
- 7) 2012 - Principal Investigator, Center for Island Sustainability Faculty Grant, Awarded \$3,000. Assessment of Renewable Energy Solutions in Guam and Palau.
- 8) 2011 - Principal Investigator, Western Pacific Coral Reef Institute, Awarded \$50,000: Comprehensive Assessment of Local Perceptions, Affecting Change and Engaging the Community.
- 9) 2011 - Principal Investigator, Guam Preservation Trust, Awarded \$5,000: Navigating Change Marianas, A to research and publish a video production discussing traditional cultural values system as it relates to fostering healthy relationships with the environment.
- 10) 2011 - Principal Investigator, Western Pacific Regional Fisheries Management Council - Community Fishery Ecosystem Monitoring Program. Received and managed nine (9) science-monitoring backpacks in collaboration with three schools on Guam.
- 11) 2009 - Principal Investigator, Sea Grant Extension Project, Awarded \$140,000: Sea Grant Extension Project
- 12) 2006-2008 - Pediatric Pharmacotherapy Grant, Awarded \$10,000, Ameliorative Effects of Anti-Epileptic Drugs on Post-Hypoxia-Ischemia Morphological and Histological.

#### **Professional Development Trainings**

2015 - Certified Facilitator, Dan Dorr Associates  
2015 – Certified, Waterfront Safety, American Red Cross  
2015 – Certified Lifeguard, American Red Cross  
2014 - Advanced Leadership Training, Dan Dorr Associates  
2014 - Certified NOAA Climate Steward, Climate Stewards Program  
2009 - PADI Advance Open Water Diver Certification

#### **Extension Publications**

Mariana Islands Homeowners Handbook to Prepare for Coastal Hazards, May 2015  
Watersheds with Builders of a Better Bay, SeaGrantGuahan YouTube channel, June 2015 (<https://youtu.be/HU3iKLKYF48>)  
Builders of a Better Bay Bulletin, Issue 2, June 2015  
Builders of a Better Bay Bulletin, Issue 1, February 2015  
How to Build Your Own Watershed, Builders of a Better Bay Video, SeaGrantGuahan YouTube channel, January 2015 (<https://youtu.be/g9gorwzngI>)  
Anna Simeon + UOG Sea Grant, SeaGrantGuahan YouTube channel, January 2015 (<https://youtu.be/-RG79rZ3uA8>)  
Anna Simeon + UOG Sea Grant, SeaGrantGuahan YouTube channel, December 2014 (<https://youtu.be/Ro-tLgbvco>)  
Coastal Storms Preparedness Pamphlet, December 2015  
Coastal Storms Preparedness Fact Sheet, December 2015  
Communications Strategies, National Sea Grant Guide to Extension Programs Manual, Spring 2013  
Let's Do Science, Biochemistry Enrichment Text for Elementary Students, Fall 2007