

CURRICULUM VITAE

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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 2015-
Present

Assistant Professor of Physiology
Biology Program
Division of Natural and Applied Science University of Guam, Mangilao, Guam

August 2015-
July 2017

Co-Principal Investigator
Education, Outreach and Diversity Lead
Guam Experimental Program to Stimulate Competitive Research (EPSCoR)
University of Guam, Mangilao, Guam

August 2009 –
August 2015

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

Assistant Professor, August 2015-present, Biology Program, University of Guam

- Instruct Anatomy and Physiology I & II Lab classes
- Support student learning through study sessions and other co-curricular activities for Biology majors
- Participate in faculty meetings and department events
- Thesis committee member, Christina Nguyen, E.Coli Composition in Ylig River Sediment
- Faculty Advisor, UOG Chapter of American Medical Student Association (AMSA)
- Faculty Advisor, UOG Chapter of American Association of University Women (AAUW)
- Develop new syllabi and integrate science communication into EV504 – Environmental Literature and Scientific Presentation

Co-Principal Investigator, August 2015-present, Guam EPSCoR, University of Guam

- Develop Education, Outreach, and Diversity strategic plan for Guam EPSCoR
- Develop recruitment and retention plan for Graduate Research Assistantship (GRA)
- Develop application, student handbook, and guidelines for GRAS
- Recruit undergraduates to Summer Research Experience (SRE)
- Develop evaluation rubric for SRE program application
- Develop marine debris citizen science program (launch summer 2016)
- Provide professional development and team building for SRE and GRA students
- Integrate innovative science communication strategies into professional development and course offerings for undergraduate and graduate students

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).
- 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 a 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.

Teaching Experience

BI110 & BI 110L	Spring 2019
BI321	Scientific Arguments – Fall 2018, Fall 2019
BI320	Scientific Writing – Spring 2018
BI494	Pharmacology – Fall 2017, Fall 2019
BI124	Anatomy and Physiology I – Fall 2016- 2017
BI124L	Anatomy and Physiology I Lab – Fall 2015-current
BI 125	Anatomy and Physiology II –Spring 2016-2018
BI125L	Anatomy and Physiology II Lab –Spring 2016-current
EV504	Environmental Biology and Scientific Presentation – Spring 2016
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 Writing	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 Community Contributions & Membership in Professional Organizations

American Association of University Women (AAUW) Guam Branch

President - Fall 2017-Spring 2019

Member – Fall 2015-Present

Chair, Scholarship Program – Spring 2016-Spring 2017

Race for Water Foundation

Water Expert, Summer 2015 – present

Pacific Integrated Ocean Observing System (PACIOOS)

Liaison – Fall 2012-present

Guam Nature Alliance, Tasi subcommittee (www.guamnaturealliance.org)

Co-chair -Fall 2012-present

Science and Technology Plan (<http://guamepscor.org/about-us/guam-science-technology-plan>)

Author – Spring 2014

Healthy Guam Healthy You Symposium, University of Guam

Coordinator, Spring 2013

Mission Zero Bag Campaign, Payless Supermarkets

Member, Fall 2012-2015

Guam Energy Task Force

Member – Fall 2012-Fall 2015

Navigating Change Curriculum Workshop, Ritidian Point, Guam

Coordinator - Summer 2010

Science Fair Judge

Spring 2018 – Guam Islandwide Science Fair, Mangilao, GU

Spring 2013 - Guam Islandwide Science Fair, Mangilao, GU

Spring 2012 - Guam Islandwide Science Fair, Mangilao, GU

Spring 2011 - Guam Islandwide Science Fair, Mangilao, GU

Spring 2011 - F.Q. Sanchez Elementary School, Merizo, Guam January 2010

Spring 2010 - St. Johns School, Upper Tumon, Guam

Spring 2009 - Harry S. Truman Elementary, Santa Rita, Guam

University Service

Program Review Subcommittee, University of Guam

Member – Fall 2019-Spring 2021

Search Committee Assistant Professor, Biology Program, University of Guam

Chair - Spring 2019

Faculty Advisor, American Medical Student Association

Fall 2017-Present

Faculty Advisor, American Association of University Women

Fall 2017-Present

Faculty Development Center Committee, University of Guam

Chair - Fall 2015 – Spring 2019

Search Committee Assistant Professor, Sea Grant, Cooperative Extension Service, University of Guam

Chair - Spring 2015

Search Committee Nutrition Faculty Position, Cooperative Extension Service, University of Guam

Member -Spring 2015

Search Committee TADEO Director Position, University of Guam

Member - Spring 2014

Presentations

RIOTERS, Biology Program, University of Guam

Presenter- Fall 2016

Payuta Conference, Climate Change on Guam, Guam Community College

Invited Speaker- 2015

Pacific Risk Management Ohana Meeting, Assessing Perceptions Towards Coastal Storms Vulnerability on Guam

Presenter- 2015

Conference on Island Sustainability, Environmental Working Group

Presenter – 2015

Conference on Island Sustainability

Presenter, Perceptions towards renewable energy on Guam - 2013

Presenter, Guam-centric curriculum- 2012

Presenter, Guam Green Business Program – 2011

Seeds of Change Conference

Speaker and Panelist – Fall 2012

YOUTHSPEAK Conference

Panelist - February 2010

Awards Received

2010 - Manfayi International Peace Award (Recognizes an individual who demonstrates a commitment and leadership within the community. Guam)

Grants Received

- 1) 2017-2019 – co-Principal Investigator, Pre-Pilot Project, UHCC & UOG Cancer Grant Partnership, awarded \$50,000/annual for two years
- 2) 2012-2021 – Principal Investigator, Pacific Integrated Ocean Observing System (PACIOOS), Spring 2016, awarded \$10,000 annually
- 3) 2015-2020 - Co- Principal Investigator, Experimental Program to Stimulate Competitive Research (EPSCoR), Summer 2014, awarded 6 million dollars
- 4) 2015-2016 – Co-Principal Investigator, NOAA Marine Education Training Grant, Summer 2015, Awarded \$16,210: Quantitative Underwater Surveying Techniques (QUEST) 2.0.
- 5) 2015 - Principal Investigator, Center for Island Sustainability Faculty Grant, Spring 2015, Awarded \$3,000: Gateway to Marine Science course.
- 6) 2013 - Principal Investigator, Coastal Storms Program Grant, Awarded \$109,400: Assessing Perceptions towards Coastal Storms Vulnerability on Guam.
- 7) 2012-2014 – Co-Principal Investigator, NOAA Marine Education Training Grant, Spring 2012, Awarded \$15,000: Quantitative Underwater Surveying Techniques (QUEST) on Guam.

- 8) 2012-2016 - Principal Investigator, Sea Grant Coherent Area Program. Obtained Coherent Area Program Status for UOG, Awarded \$1.02 million dollars.
- 9) 2012 - Principal Investigator, Center for Island Sustainability Faculty Grant, Awarded \$3,000. Assessment of Renewable Energy Solutions in Guam and Palau.
- 10) 2011 - Principal Investigator, Western Pacific Coral Reef Institute, Awarded \$50,000: Comprehensive Assessment of Local Perceptions, Affecting Change and Engaging the Community.
- 11) 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.
- 12) 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.
- 13) 2009 - Principal Investigator, Sea Grant Extension Project, Awarded \$140,000: Sea Grant Extension Project
- 14) 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
- 2011 - Sea Grant Academy, Intensive training academy open to Sea Grant extension agents and faculty
- 2009 - PADI Advance Open Water Diver Certification

Publications

- Franke Adrian A, Biggs Laura, Yew Joanne Y, Lai Jennifer F. Areca alkaloids measured from buccal cells using DART-MS serve as accurate biomarkers for areca nut chewing. *American Society for Mass Spectrometry*, Atlanta, Georgia June 2-6, 2019 (accepted March 1, 2019)
- Altered Fluorescence of Buccal Cells as Biomarkers for Betel Nut Chewing, Substance Use and Misuse, (submitted Feb 20, 2019, resubmitted Sept 9, 2019)
- Characterization of the Soil Erosion in the Pago Watershed (submitted to Micronesica Feb 2019)
- *Plastic in Our Food Chain*, Pacific Daily News, April 2015
- 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/g9gorwznzGI>)
- 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