

# Andrian P. Gajigan

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**Research Interests:** microbial oceanography, marine virology, genomics, gene regulation

## Professional Preparation

PhD Oceanography	University of Hawai'i at Mānoa	2018 - present
MS Marine Science	University of the Philippines Diliman	2013 - 2017
BS Biochemistry, <i>cum laude</i>	University of the Philippines Manila	2007 - 2012

## Professional Appointments

*Research Assistant*, Department of Oceanography  
University of Hawai'i at Mānoa (Marine Viral Ecology Lab) Jan 2018-present

*Lab Manager*, Marine Science Institute  
University of the Philippines Diliman (Marine Molecular Biology Lab) Sept. 2013-Dec. 2017

*Research Assistant*, Marine Science Institute  
University of the Philippines Diliman (Marine Chemistry & Pollution Lab) Feb. 2013-Aug. 2013

## Publications

- Gajigan AP**, Schvarcz CR, Conaco C & Steward GF. Changes in ultrastructure, small RNA and transcriptome following a mimivirus-phytoplankton infection progression. (2021; in prep)
- Gajigan AP**, Yñiguez AT, Villanoy CL, San Diego-McGlone ML, Jacinto GS, Conaco C. 2018. Diversity and community structure of marine microbes around the Benham Rise underwater plateau, northeastern Philippines. *PeerJ* 6:e4781. DOI 10.7717/peerj.4781
- Gajigan AP**, Conaco C. 2017. A microRNA regulates the response of corals to thermal stress. *Molecular Ecology*. 26:3472–3483. DOI 10.1111/mec.14130
- Gajigan AP**, Diaz LA, Conaco C. 2017. Resilience of the prokaryotic microbial community of *Acropora digitifera* to elevated temperature. *MicrobiologyOpen*. 00:e478. DOI 10.1002/mbo3.478

## Selected Courses and Training

Jul-Aug 2018 Marine Biological Laboratory Microbial Diversity Course, Woods Hole, MA, USA

Jun 2018 Center for Dark Energy Biosphere Investigations Bioinformatics Workshop for Metagenomics and Microbiome Analysis, University of Southern California, USA

Apr 2014 United Nations Intergovernmental Oceanographic Commission for Western Pacific – Training Course on Recruitment Monitoring of Coral Reef Organisms, Nha Trang, Vietnam

Oct 2013 Philippine Genome Center Basic Bioinformatics Workshop, Philippines

### **Research Grants** (4 grants as principal investigator or grantee)

Principal Investigator, National Geographic Early Career Grant, *Examining microbial and viral drivers of red tide in Bolinao, Philippines*, February 2021

Grantee, East-West Center Field Research Grant, *Examining microbial and viral drivers of red tide in Bolinao, Philippines*, \$3000, October 2020 (co-funding)

Grantee, Center for Microbiome Analysis through Island Knowledge and Investigation (CMAIKI) Graduate Research Competition, University of Hawai'i at Mānoa, *Exploring the role of giant virus-encoded microRNAs in regulating host machinery*, \$1000, November 2018

Principal Investigator, University of the Philippines Diliman - Office of the Vice Chancellor for Research and Development Outright Research Grant, *The microbial metagenome of West Palawan Shelf waters*, Php300,000 ≈ \$6000, August 2016

### **Fellowships and Recognition**

Aug. 2020 **Denise B. Evans Fellowship** 2020-2021, School of Ocean and Earth Science and Technology, University of Hawai'i at Mānoa, (~\$35,000 for a year; awarded to 2 graduate students with outstanding research potential)

Oct. 2018 **Achievement Scholarship** for Spring 2019, Department of Oceanography, University of Hawai'i at Mānoa, \$1000

Jan 2018-pre **Student Affiliate**, East-West Center, Honolulu, Hawai'i, USA (~3 years)

Apr 2017 **Visiting Student Grant**, COOPERATE Program (Continuous Operational and Outcome-based Partnership for Excellence in Research and Academic Training Enhancement) of the University of the Philippines, lab visit and thesis work at University of Hawai'i at Mānoa (Php134,000 ≈ \$2700)

Nov 2016 **Training Fellowship**, Alfred Wegener Institute for Marine and Polar Research, Strategic Marine Alliance for Research and Training (SMART), Partnership for Observation of the Global Oceans (POGO), the Nippon Foundation and AtlantOS North South Atlantic Transect 2016 (NoSoAT 2016), Germany-South Africa (*twenty-five students were selected from ~500 international applicants*)

Sept 2012 **10th Placer** out of 642 examinees (Rating: 86.25%), Philippine Chemistry Licensure Examination 2012

## Travel Awards

full funding awarded to selected participants to present their work at a workshop or conference

- Nov 2017      Cutting Edge Developments in RNA Biology for the Control of Gene Expression, Okinawa Institute of Science and Technology, Okinawa, Japan
- May 2017      3rd PICES/ICES Early Career Scientist Conference, Climate, Oceans and Society: Challenges and Opportunities, Busan, South Korea
- Mar 2016      NTU Winter School: Introduction to Complexity Science, Nanyang Technological University, Singapore (*two fellowships were given from a pool of 30-40 international participants*)
- July 2015      Croucher Summer Course: Climate Change and Marine Ecosystems, Hong Kong University of Science and Technology, Hong Kong
- Apr 2014      9th IOC Sub-Commission for the Western Pacific (WESTPAC) International Scientific Symposium, Nha Trang, Vietnam

## Presentation in Scientific Meetings

- May 2019      **Gajigan AP**, Schvarcz CR, & Steward GF. *MicroRNAs as molecular weapons in giant virus-phytoplankton infection*. Poster presentation at the annual C-MAIKI conference (Center for Microbiome Analysis through Island Knowledge and Investigation), University of Hawai'i at Mānoa, USA
- May 2017      **Gajigan AP** & Conaco C. *Taxonomic and functional diversity of marine microbes in the Philippine archipelago*. Oral presentation at 3rd PICES/ICES Early Career Scientist Conference, Climate, Oceans and Society: Challenges and Opportunities, Busan, Korea
- Mar 2016      **Gajigan AP**, Haifen C, Sheraton V & Yi CTS. *Gene regulatory network in corals*. Oral presentation at NTU Winter School: Introduction to Complexity Science, Nanyang Technological University, Singapore
- Oct 2015      **Gajigan AP**, Yñiguez AT, Jacinto GS, Cabrera OC, Villanoy CL & Conaco C. *Exploring the microbial community structure in two biogeographic regions in the Philippine archipelagic seas*. Oral presentation at the 13th Philippine Association of Marine Science Symposium, General Santos, Philippines
- Jul 2015      **Gajigan AP** & Conaco C. *MicroRNA regulation of the coral thermal stress response*. Poster presentation at the Croucher Summer Course: Climate Change and Marine Ecosystems, Hong Kong University of Science and Technology, Hong Kong
- Apr 2014      **Gajigan AP**, Guzman CJM & Conaco C. *Evolutionary relationships of HSP70 genes in marine sponges and their differential expression during thermal stress*. Poster presentation at the 9th IOC-WESTPAC International Symposium on Marine Science, Nha Trang, Vietnam

- Oct 2013      **Gajigan AP**, Hermo MRG, Lagumen MCT, Senal MIS, San Diego-Mcglone ML & Jacinto GS. *Nutrients and nutrient ratios during the March and April 2013 dinoflagellate bloom in Bolinao, Pangasinan*. Oral presentation at the 12th Philippine Association of Marine Science Symposium, Tacloban, Philippines
- Oct 2007      **Gajigan AP** & Alejandrino MP. *Immunoblot and Cytotoxicity Assays of Selected Species of Philippine Cobra*. Poster presentation at Philippine Intel Science Fair

### **Oceanographic Cruises** (total = 75 days, 4 research expeditions)

Juan de Fuca Ridge Cruise, RV Atlantis, North Pacific Ocean, May 2019 (15 days)  
 North-South Atlantic Cruise, RV Polarstern, Germany-South Africa, Nov-Dec 2016 (30 days)  
 West Palawan Shelf Cruise, MV DA-BFAR, Philippines, Apr-May 2015 (15 days)  
 Benham Rise Cruise, MV DA-BFAR, Philippines, May 2014 (15 days)  
 and numerous fieldwork in coastal sites across the Philippines

### **Teaching Experience**

Guest Lecturer, Marine Microbiology Graduate Course, University of the Philippines, 2016-2017  
 Tutor, Fahrenheit 451 Tutorial and Review Center, Las Piñas, Philippines, 2010-2012  
 Volunteer Peer Tutor, University of the Philippines Manila, 2008-2012

### **Professional Service & Synergistic Activities**

#### Service to the University and Academe

- **Board Member**, Student Activity and Program Fee Board, University of Hawai'i at Mānoa (May 2019 - June 2020)
- **Student Volunteer**, Ocean Observation, Honolulu, Hawai'i (Sept 2019)
- **Oceanography Representative** to Graduate Student Organization, University of Hawai'i at Mānoa (October 2018 - August 2019)
- **Student Volunteer**, Asia Oceania Geosciences Society 15th Annual Meeting, Honolulu, Hawai'i, USA (June 2018)
- **Founding President**, University of the Philippines Marine Science Society (2015)
- **Consultant**, Philippine Association of Chemistry Students, Inc. (2012-2017)
- **Volunteer**, Secretariat Organizing Committee, 27th Philippine Chemistry Congress, 2012 Asia Pacific Conference on Analytical Science, 3rd Regional Electrochemistry Meeting of South-East Asia (2012)
- **Vice President for Special Projects**, Philippine Association of Chemistry Students, Inc. (2011-2012)
- **Vice President for External Affairs**, University of the Philippines Biochemistry Society (2010-2011)

#### Community Outreach and Education

- **Volunteer**, Hawai'i Workers Center (March 2020-present)
- **Speaker**, Career Talk at Ho'okele Elementary School (March 2020)
- **Facilitator**, The Secret World of Viruses, Lacy Veach Workshop, Kamehameha Schools, Hawai'i (October 2019)

- **Facilitator**, The Secret World of Viruses (geared towards middle school students), Onizuka Day of Exploration, Blaisdell, Honolulu, Hawai'i (April 2019)
- **Volunteer**, Secretariat Organizing Committee, Sustainability Initiative in the Marginal Seas of South and East Asia (SIMSEA) Regional Symposium (September 2016)
- **Invited Judge** for High School Investigatory Project, Junior Chemistry Congress organized by the Philippine Association of Chemistry Students, Inc. (September 2016, November 2017)
- **Invited Judge** for Undergraduate Thesis Presentation at National Chemistry Students' Congress organized by the Philippine Association of Chemistry Students Inc. (February 2016)
- **Volunteer**, Pathways to Higher Education, Ateneo de Manila University (Dec. 2012 - Dec. 2013)

### Professional Societies

- **Member**, Integrated Chemists of the Philippines (October 2012 - October 2015)

### As Peer Reviewer

- *Philippine Journal of Science* (2019)
- *Molecular Ecology* (2017-2018; [Publons profile](#))
- Abstract reviewer for American Society for Microbiology *Microbe 2019* Conference, East-West Center International Graduate Student Conference 2020, 2021

### **Media Coverage**

Jul 2018	5 Filipino marine scientists who are saving our seas by CNN Philippines ( <a href="#">link</a> )
Dec 2016	Motivation and experiences as a marine scientist Interview with Integrating Science in the Philippines (ISIP) ( <a href="#">video link</a> )
Nov 2016	Young scientists on board RV Polarstern to investigate ocean, atmosphere and climate interactions by Partnership for Observation of the Global Ocean ( <a href="#">link</a> )
Apr 2016	Complexity as a game changer: Reflections on the 2016 NTU Winter School, Singapore via University of the Philippines ( <a href="#">link</a> )